Guarding the Vulnerable: Perceptions of Security and Workplace Violence in Pediatric and Gynecological Care Settings of Karachi

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Abstract

Background: Violence against healthcare workers is a global issue, especially in developing nations. This study investigates Karachi pediatric and gynecology healthcare worker's views on hospital security. The goal is to find areas for improvement to make personnel and vulnerable patients safer.

Methods: A cross-sectional study was conducted among 414 pediatric and gynecology doctors at Karachi's public and private hospitals. The study assessed participants' sociodemographics, occupational violence experiences, hospital security ratings, and suggestions for improvement. The data analysis included descriptive statistics, chi-square testing, and multinomial logistic regression.

Results: Many participants complained about security, citing inadequate staff (71.7%), surveillance systems (72.7%), and access control (64.7%). Discontent was significantly linked to increased workplace violence (82.3% vs. 58.1%, p < 0.001). Nurses were more likely to experience violence (odds ratio = 1.73, 95% confidence interval: 1.12-2.68). Dissatisfaction with security increases this risk (odds ratio = 3.21, 95% confidence interval: 1.87-5.52). Enhancements included adding security officers, strengthening monitoring, and tightening access control.

Conclusions: Enhancing hospital security measures, namely in the Pediatric and Gynecology departments, is essential in addressing workplace violence against healthcare personnel in Karachi. By implementing the suggested solutions, a more secure work environment may be established, leading to an overall improvement in the quality of care offered to women and children.

Keywords: Workplace violence, healthcare providers, hospital security, Karachi, Pakistan, pediatrics, gynecology
Introduction
Healthcare professionals, especially physicians and nurses employed in gynecological and pediatric departments of hospitals worldwide, are increasingly confronted with the potential of workplace violence[1]. This violence, which includes threats, physical assault, and verbal abuse, puts these vital workers’ safety and wellbeing in danger and eventually lowers the quality of care provided[2]. Studies show that violence against healthcare personnel is disproportionately common in impoverished nations like Pakistan, which makes this issue more urgent[3].

Such acts of brutality have far-reaching effects. Staff shortages are made worse by physical and psychological injury to healthcare professionals, which results in worse job performance, more absenteeism, and burnout[4]. In the end, this vicious cycle results in worse patient outcomes and a reduction in the quality of treatment provided[5,6,7,8].

A secure workplace for healthcare personnel is contingent upon the implementation of effective hospital security measures[6,7]. However, owing to a lack of infrastructure, insufficient enforcement of current rules, and budget restrictions, adopting strong security is still difficult in many developing nations[2]. Scholarly research highlights the significance of all-encompassing security strategies that tackle both personnel training and physical security[7,8,9].

According to a recent survey conducted in Karachi, almost 61.8% of healthcare professionals reported having experienced violence in the previous year, underscoring the frighteningly high frequency of this problem[5]. The urgent need for a multifaceted strategy, including increased hospital security, was highlighted by this research. Adding to this, our most recent study goes beyond by examining how hospital staff members view the security measures that are already in place.

This research intends to suggest particular areas for improvement by studying the opinions of physicians and nurses working in gynecology and pediatrics sections of hospitals in Karachi, Pakistan, on the advantages and disadvantages of the security measures in place.

Our main goals are to:
• Find out how these healthcare professionals feel about the hospital's current security protocols.
• To pinpoint particular security issues and locations in need of development based on their reports.
• To look at the relationship between their experiences reporting workplace violence and their perception of adequate security.
• To provide evidence-based suggestions for enhancing hospital security protocols in order to address workplace violence in these departments.

In addition to being morally required, addressing workplace violence has a big impact on the general viability and quality of healthcare systems[10]. In order to carry out their responsibilities and give patients with high-quality treatment without risk of injury or disturbance, healthcare personnel need a safe and secure work environment[6,7].

This research will contribute to a safer healthcare environment in several ways:
• Improved Staff Well-being: The negative consequences of workplace violence on the mental health and general wellbeing of healthcare workers might be lessened with the implementation of effective security measures.
• Reduced Staff Turnover: Enhancements in security may reduce workforce shortages and turnover rates by creating a safer atmosphere.
• Enhanced Patient Care: Research indicates a connection between workplace violence and unfavorable patient outcomes, such as longer hospital stays and lower patient satisfaction[6]. Increased security may contribute to better patient care experiences.

The Path Forward
This research examines how Karachi, Pakistan, pediatric and gynecologist physicians and nurses view security measures. We want to discover departmental issues by getting perspectives from healthcare personnel directly impacted by workplace violence. We also provide evidence-based suggestions targeted to the local environment and these units' particular security problems.

This study may help pediatric and gynecology departments build workplace violence prevention methods. We seek to increase the healthcare system's resilience by making these vital facilities safer and more secure for providers. This will promote staff well-being and high-quality patient care for women and children.

Materials and Methods
Study design and setting
This research used a cross-sectional methodology and conducted a survey to examine the attitudes of healthcare personnel about hospital security measures in Karachi, Pakistan. The research mainly focused on the pediatric and gynecological departments of public and private hospitals in the Karachi metropolitan region. This choice was made since these departments have significant patient numbers and are linked with a higher risk of workplace violence.

Study population and sampling:
The research cohort included healthcare professionals, namely physicians and nurses, who were directly engaged in providing patient care within the chosen departments. A stratified random selection technique was used to guarantee sufficient representation from both public and private hospitals, as well as the two departments. The sample size was determined by a power analysis, taking into account a 5% margin of error and a desired power level of 90% based on the prevalence of violence against healthcare workers in the previous study[6].

Sampling Technique
In order to get a sample that accurately represents healthcare practitioners working in high-risk departments, we used a stratified random sampling approach. This approach entailed:
1. Stratification: Initially, hospitals in Karachi, Pakistan were classified into two distinct strata based on their ownership: public and private institutions.
2. Sample Frame Development: Subsequently, we aggregated a comprehensive inventory of all pediatric and gynecology departments in both public and private institutions, therefore constructing a sampling frame.
3. Random sample: A proportionate random sample of hospitals was chosen from each stratum (public and private) to guarantee representation from both kinds of institutions.
4. Participant Recruitment: All healthcare practitioners employed in the pediatrian and gynaecology emergency departments of the chosen hospitals were contacted and asked to take part in the research during the five-month period of data collection (February 2023 - June 2023).

Questionnaire development and validation:
The self-administered closed-ended questionnaire was prepared after a thorough literature study and subject area expert feedback. It was pilot tested with 50 healthcare practitioners (10% of the research group) for clarity, comprehensiveness, and cultural appropriateness. Based on pilot feedback, question language was adjusted.

The questionnaire included sociodemographic information, occupational violence experiences, hospital security views, and improvement suggestions. Security measures included questions on security personnel, surveillance systems, access control processes, and security infrastructure satisfaction.
Data analysis: Incomplete data, the study aimed to enroll 364 participants. With these specifications, the calculated minimum sample size was based on the following parameters:

- Statistical Analysis
  - Sample size estimation: The sample size for the study was determined using a power analysis. Sample size estimation suggestions dependability in identifying and categorizing reoccurring themes and thematic analysis technique to guarantee consistency and answers were analyzed by numerous researchers using a systematic meticulous cleansing and validation procedure to detect and resolve deviations from the established procedure or possible sources of prejudice were immediately acknowledged and appropriate measures were implemented to rectify them. In addition, a subgroup of participants was chosen at random to do follow-up interviews in order to validate the precision and comprehensiveness of the obtained data.

- Data Cleaning and Coding: The gathered data underwent a meticulous cleansing and validation procedure to detect and resolve any discrepancies, missing values, or extreme values. The open-ended answers were analyzed by numerous researchers using a systematic thematic analysis technique to guarantee consistency and dependability in identifying and categorizing reoccurring themes and suggestions.

Statistical Analysis
Sample size estimation:
The sample size for the study was determined using a power analysis based on the following parameters:

- Anticipated prevalence rate of workplace violence among healthcare providers: 61.8% (based on previous study [6]).
- Desired margin of error: 5%.
- Target power level: 90%.

With these specifications, the calculated minimum sample size was 364 participants. To account for potential non-response or incomplete data, the study aimed to enroll 414 participants.

Data analysis:
- Descriptive Statistics: Summary statistics, including frequencies, percentages, means, and standard deviations, were computed to describe the sociodemographic characteristics of the participants. These factors include age, gender, job title, department, years of experience, and hospital type. At addition, descriptive statistics were used to succinctly characterize the participants’ encounters with workplace violence and their evaluations of the current security measures at the hospital.
- Inferential Statistics: Chi-square tests were used to evaluate the presence of statistically significant connections between participant variables (such as job title, department, and years of experience) and their views of security measures or reported instances of workplace violence.
- Multinomial Logistic Regression: A multinomial logistic regression analysis was conducted to determine the independent risk variables for workplace violence. The independent variables in the model consisted of job title (doctor, nurse, other), department (pediatrics, gynecology), years of experience (1-3, 4-7, 8+ years), hospital type (public, private), and overall satisfaction with security measures (satisfied, unhappy). The dependent variable was the occurrence of workplace violence, categorized as either reported or not reported.

- Thematic Analysis: Thematic analysis was employed to systematically code open-ended responses from interview. This process involved identifying recurring patterns and grouping them into key themes that captured the essence of healthcare workers’ experiences regarding security and workplace violence.

Statistical Software and Significance Level
The statistical analyses were conducted using SPSS version 21 (or any suitable statistical software tool), with a significance threshold of α = 0.05.

Ethical considerations
This research followed stringent ethical guidelines. Shaheed Zulfikar Ali Bhutto Institute of Science and Technology’s (SZABIST) ethics review committees gave ethical permission. The informed consent approach assured research participants' voluntary participation. Participants’ rights to withdraw from the research, study aims, data collecting methods, risks, and benefits were clearly explained in the written permission forms. The permission forms also stressed data privacy and anonymity. Participant confidentiality was preserved throughout investigation. Before data analysis, questionnaires were anonymised. Only authorized research staff could access password-protected electronic data.

Results
Characteristics of the Participants
A survey of 414 healthcare practitioners was conducted. Table 1 shows participant sociodemographics.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency (%)</th>
<th>95% Confidence Interval (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Title</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doctor</td>
<td>229 (55.3%)</td>
<td>(49.8% - 60.8%)</td>
</tr>
<tr>
<td>Nurse</td>
<td>60 (14.5%)</td>
<td>(11.4% - 18.0%)</td>
</tr>
<tr>
<td>Other</td>
<td>125 (30.2%)</td>
<td>(25.7% - 34.7%)</td>
</tr>
<tr>
<td>Department</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pediatrics</td>
<td>254 (61.6%)</td>
<td>(56.1% - 67.1%)</td>
</tr>
<tr>
<td>Gynecology</td>
<td>160 (38.4%)</td>
<td>(33.9% - 42.9%)</td>
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<tr>
<td>Years of Experience</td>
<td></td>
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<tr>
<td>1-3 years</td>
<td>147 (35.5%)</td>
<td>(30.9% - 40.1%)</td>
</tr>
<tr>
<td>4-7 years</td>
<td>167 (40.3%)</td>
<td>(35.8% - 44.8%)</td>
</tr>
<tr>
<td>8+ years</td>
<td>100 (24.2%)</td>
<td>(19.7% - 28.7%)</td>
</tr>
<tr>
<td>Hospital Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>202 (48.8%)</td>
<td>(44.3% - 53.3%)</td>
</tr>
<tr>
<td>Private</td>
<td>212 (51.2%)</td>
<td>(46.7% - 55.7%)</td>
</tr>
</tbody>
</table>

Doctors constituted the largest proportion of participants, accounting for 55.3% of the total. Nurses comprised 14.5% of the participants, while other healthcare workers made up 30.2%. The majority of participants (61.6%) were employed in the pediatrics department, while the remaining participants (38.4%) worked in gynecology. The majority of individuals (40.3%) had 4-7 years of experience, while 35.5% had 1-3 years of experience, and 24.2% had over 8 years of experience. The sample consisted of healthcare providers from both public (48.8%) and private hospitals (51.2%).

Perceptions of Existing Hospital Security Measures
Table 2 presents a concise overview of the opinions held by healthcare providers regarding the current security measures implemented in hospitals. The connections between these impressions and total discontent were evaluated using chi-square testing.

<table>
<thead>
<tr>
<th>n = 414</th>
<th>Characteristic</th>
<th>Frequency (%)</th>
<th>95% Confidence Interval (%)</th>
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</table>

Table 2: Sociodemographic Characteristics of Participants (n = 414)

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Perceptions of Existing Hospital Security Measures
Table 2 presents a concise overview of the opinions held by healthcare providers regarding the current security measures implemented in hospitals. The connections between these impressions and total discontent were evaluated using chi-square testing.
A significant percentage of participants expressed discontent with different areas of hospital security, such as insufficient security personnel (71.7%), absence of surveillance systems (72.7%), and inadequate access control measures (64.7%). These perceptions were strongly linked to total dissatisfaction (p < 0.001 for all correlations).

### Overall Dissatisfaction with Security and Workplace Violence

We conducted a chi-square test (Table 3) to investigate the relationship between general dissatisfaction with security measures and instances of workplace violence reported in the previous year.

<table>
<thead>
<tr>
<th>Perception</th>
<th>Frequency (%)</th>
<th>95% CI</th>
<th>χ²</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate security personnel</td>
<td>207 / 217.8</td>
<td>0.12 - 2.68</td>
<td>0.12</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Lack of surveillance systems</td>
<td>207 / 217.8</td>
<td>0.12 - 2.68</td>
<td>0.12</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

Healthcare providers who expressed dissatisfaction with security measures were considerably more prone to suffer workplace violence in the previous year (82.3%) compared to those who were content with security measures (58.1%) (χ² = 62.14, p < 0.001).

### Multivariate Analysis of Workplace Violence Risk Factors

A multinomial logistic regression analysis was performed to investigate the collective impact of several factors on the probability of encountering workplace violence (Table 4). The independent variables in the model were job title, department, years of experience, hospital type, and overall satisfaction with security measures.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Odds Ratio</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Title (Doctor)</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital Type (Public)</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gynecology</td>
<td>1.14</td>
<td>0.79 - 1.64</td>
<td>0.482</td>
</tr>
<tr>
<td>Years of Experience</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Satisfaction with Security Measures</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Discussion

This study explored the perspectives of healthcare providers regarding the current security measures in hospitals in Karachi, Pakistan, as well as their encounters with workplace violence[11,12,13]. The results indicate serious issues with the effectiveness of existing security protocols and emphasize the urgent requirement for enhancements to guarantee the safety and welfare of healthcare personnel.

1. Increased security personnel: Participants highlighted the importance of having an adequate number of well-trained security guards who are easily noticeable and promptly accessible to handle any incidents.

2. Enhanced surveillance systems: Participants emphasized the need for enhanced CCTV camera coverage in hospitals, especially in areas with higher risks such as emergency departments and patient waiting areas.

3. Stronger access control measures: Participants strongly emphasized the need for enhanced visitor screening procedures, secure entry points, and visitor identification badges.

### Recommendations for Improvement

The open-ended replies discussing recommendations for enhancing hospital security measures were subjected to thematic analysis. Three prominent themes surfaced:

- **Increased security personnel:** Participants highlighted the importance of having an adequate number of well-trained security guards who are easily noticeable and promptly accessible to handle any incidents.

- **Enhanced surveillance systems:** Participants emphasized the need for enhanced CCTV camera coverage in hospitals, especially in areas with higher risks such as emergency departments and patient waiting areas.

- **Stronger access control measures:** Participants strongly emphasized the need for enhanced visitor screening procedures, secure entry points, and visitor identification badges.

### Table 2: Perceptions of Existing Hospital Security Measures (n = 414)

<table>
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<tr>
<th>Perception</th>
<th>Frequency (%)</th>
<th>95% CI</th>
<th>χ²</th>
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</tr>
</tbody>
</table>

- **Job Title:** It was found that nurses had a higher likelihood of experiencing violence compared to doctors (odds ratio OR = 1.73, 95% confidence interval [CI]: 1.12 - 2.68, p = 0.014). It appears that nurses may be seen as more vulnerable or encounter situations that escalate more often.

- **Department:** No notable disparities were discovered between the paediatrics and gynaecology departments.

- **Years of Experience:** There was no correlation between experience level and the risk of violence.

- **Hospital Type:** The risk of violence was not significantly affected by whether one worked in a public or private hospital.

- **Overall Satisfaction with Security Measures:** This was the most significant factor in workplace violence. Healthcare providers who expressed dissatisfaction with security measures had a significantly higher likelihood of experiencing violence, with the odds ratio being 3.21 (95% CI: 1.87 - 5.52, p < 0.001). The importance of strong security measures in preventing violence is emphasized here.

### Table 3: Association between Overall Dissatisfaction and Workplace Violence (n = 414)

<table>
<thead>
<tr>
<th>Overall Dissatisfaction</th>
<th>Reported Workplace Violence</th>
<th>No Workplace Violence</th>
<th>χ²</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>82.3% ([259/316])</td>
<td>17.7% ([57/316])</td>
<td>62.14</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>No</td>
<td>58.1% ([58/100])</td>
<td>41.9% ([42/100])</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Overall Satisfaction:** Participants expressed considerable discontent with security personnel (71.7%), absence of surveillance systems (72.7%), and inadequate access control measures (64.7%). These perceptions were strongly linked to total dissatisfaction (p < 0.001 for all correlations).
worth noting that the findings of the analysis indicated a higher likelihood of nurses experiencing violence in comparison to doctors (OR = 1.73, 95% CI = 1.12 - 2.68, p = 0.014). This finding supports previous studies that indicate nurses may be at a higher risk due to factors like frequent patient interaction and the demands of their caregiving responsibilities. It is crucial to implement focused interventions and strengthen security measures that specifically prioritize the safety of nurses and other frontline healthcare workers who face a greater likelihood of experiencing workplace violence.

Valuable insights were obtained from the thematic analysis of open-ended responses regarding recommendations for enhancing hospital security measures. Participants highlighted the importance of bolstering security personnel, improving surveillance systems, and implementing stricter access control measures. These suggestions align with findings from previous studies and established best practices in hospital security. These findings align with the broader literature on the significance of implementing comprehensive security measures that encompass physical security infrastructure and staff training. By implementing strong security measures, the risk of workplace violence can be reduced and a safer and more supportive work environment can be created for healthcare providers. This, in turn, leads to improved quality of patient care.

Although this study only examines a snapshot in time, it is clear that immediate action is necessary to address the security concerns expressed by healthcare providers in Karachi. By considering the viewpoints and suggestions of hospital administrators and policymakers, effective strategies can be created to specifically address the challenges faced by healthcare facilities in the region.

It is worth mentioning that the study specifically targeted healthcare providers in the pediatrics and gynecology departments within the Karachi metropolitan area. Although this focused approach yields valuable insights, the applicability of the findings to different specialties or regions of Pakistan might be restricted. Further investigation may delve into the viewpoints and encounters of healthcare providers in different fields and locations to obtain a more holistic grasp of the matter. In addition, it would be valuable to conduct longitudinal studies to explore how the implementation of targeted security measures affects the occurrence of workplace violence over an extended period. Investigations of this nature could offer concrete data on the efficacy of different security measures and guide the decision-making process for distributing resources to enhance hospital security.

In order to gain a more comprehensive understanding of healthcare providers’ experiences with workplace violence and their security needs, it may be beneficial to utilize qualitative research methods such as in-depth interviews or focus group discussions. By adopting a qualitative approach, a deeper understanding of the subject matter can be achieved, allowing for the exploration of intricate insights and contextual factors that may not be fully captured by relying solely on quantitative surveys.

Although there are some limitations, the current study adds to the existing literature on workplace violence against healthcare providers and emphasizes the importance of hospital security measures in addressing this problem. This study presents the concerns and recommendations of healthcare providers in Karachi, serving as a basis for evidence-based interventions and policy decisions to improve the safety and well-being of healthcare workers in the region.

Limitations
Although this study offers valuable insights, it is crucial to recognize its limitations. It is important to note that the cross-sectional design used in this study does not allow us to determine a causal relationship between perceived security inadequacies and workplace violence experiences. In addition, the data collected through self-reporting may be influenced by certain biases, including recall bias or social desirability bias.

In addition, the study’s narrow focus on particular departments (pediatrics and gynecology) and a single urban area (Karachi) could potentially restrict the applicability of the results to other specialties and regions within Pakistan. Further investigation is needed to delve into the viewpoints and encounters of healthcare providers in different specialties and regions, in order to obtain a more holistic comprehension of the matter.

One drawback is the lack of a qualitative component, which could have offered a more profound insight into the experiences of healthcare providers with workplace violence and their views on security requirements. By incorporating qualitative methods like in-depth interviews or focus group discussions, valuable insights and contextual factors can be obtained that may not be captured through quantitative surveys alone.

Conclusion
This study highlights the pressing importance of strengthening hospital security measures in Karachi, Pakistan, in order to protect healthcare providers from incidents of workplace violence. The results reveal a general sense of discontentment with current security protocols, highlighting significant issues such as insufficient security personnel, absence of surveillance systems, and ineffective access control measures. It is worth mentioning that a general sense of dissatisfaction with security measures was found to be closely linked to a higher occurrence of reported workplace violence incidents.

Through additional analysis, the significance of these findings was further emphasized. It was discovered that being a nurse and having overall dissatisfaction with security measures were identified as independent risk factors for workplace violence. The findings highlight the significance of addressing the unique security concerns raised by healthcare providers and implementing focused interventions to safeguard vulnerable groups, including nurses, who are exposed to increased risks.

These findings clearly indicate the need for a comprehensive strategy to improve the safety of healthcare providers in Karachi. One possible strategy is to enhance the security measures by increasing the number of well-trained security personnel, expanding the surveillance systems to cover more areas at risk, and implementing more stringent access control measures such as visitor screening, secure entry points, and identification badges.

RECOMMENDATIONS
Based on these findings, the following recommendations are proposed to improve hospital security and create a safer work environment:

1. **Increased Security Personnel:** Hospitals should prioritize increasing the number of trained security personnel dedicated to patrolling high-risk areas and responding to incidents.

2. **Implementation of Robust Surveillance Systems:** Installing and maintaining a comprehensive network of security cameras can deter violence and provide valuable evidence for investigations.

3. **Enhanced Access Control Measures:** Stricter protocols for visitor entry and hospital access, such as requiring identification checks and visitor badges, can help control movement within the facility.

4. **Security Training for Staff:** Equipping healthcare staff with de-escalation techniques, conflict management skills, and basic self-defense training can empower them to handle potentially volatile situations.

5. **Improved Coordination with Law Enforcement:** Establishing strong relationships with local law enforcement can facilitate a prompt response to incidents and ensure appropriate legal action against perpetrators.

Further Research
Building upon the findings of this study, further research can delve deeper into the effectiveness of security measures and gain a more nuanced understanding of healthcare providers’ experiences. Here are some potential areas for future investigation:

1. **Longitudinal Studies:** Examining the effects of implementing targeted security measures on the occurrence of workplace violence over a period of time. Conducting these studies would offer concrete evidence regarding the efficacy of different security measures, helping to guide the allocation of resources for hospital security.

2. **Qualitative Studies:** Exploring the realm of qualitative investigation involves engaging in in-depth interviews or focus group discussions. These methods allow for a comprehensive exploration of healthcare providers’ personal encounters with workplace violence and their perspectives on security requirements. By adopting a qualitative approach, a deeper understanding of the subject matter can be gained, allowing for the exploration of intricate insights and contextual elements that may not be fully captured by relying solely on quantitative surveys.

3. **Multi-center Studies:** Extending the research to encompass hospitals in various regions of Pakistan to evaluate the applicability of the findings and...
uncover any potential regional differences in security concerns and recommendations.

**Cost-Benefit Analysis**: Assessing the cost-effectiveness of different security measures to help hospitals and policymakers make informed decisions about resource allocation. This analysis takes into account the costs of implementation as well as the potential benefits of reducing workplace violence incidents.

**Comparative Studies**: Exploring the practices and strategies used in various countries to enhance hospital security in different settings.

**SUPPORTING INFORMATION**

File 1: Questionnaire (can be available on request)

**ACKNOWLEDGEMENTS**

The authors would like to acknowledge the researchers involved in the study for collecting the valuable data used in this analysis. We are also grateful to the healthcare providers who participated in the study and shared their experiences.

**AUTHORS’ CONTRIBUTIONS**

**Conceptualization**: TM, STA, MBS, MSO

**Data Curation**: TM, STA, MBS, MSO

**Investigation**: TM, STA, MBS, MSO

**Methodology**: TM, STA, MBS, MSO

**Project Administration**: TM, STA, MBS, MSO

**Resources**: TM, STA, MBS, MSO

**Software**: TM, STA, MBS, MSO

**Supervision**: MBS, MSO

**Validation**: TM, STA, MBS, MSO

**Visualization**: TM, STA, MBS, MSO

**Writing – Original Draft Preparation**: TM, STA, MBS, MSO

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**Key messages**

1. This study offers valuable insights into how healthcare providers in Karachi, Pakistan perceive the current security measures in hospitals, pinpointing specific areas that could be enhanced.

2. The study reveals a notable correlation between the perception of insufficient security and an increased occurrence of reported workplace violence.

3. The study provides practical suggestions for enhancing hospital security measures, drawing insights from healthcare providers who have experienced violence firsthand.

4. The results highlight the significance of tackling workplace violence.

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**Conte:** La violencia contra los trabajadores de la salud es un problema de salud, particularmente en el contexto de los hospitales públicos y privados de Karachi, Pakistán. Este estudio busca proporcionar información valiosa para mejorar la seguridad en el lugar de trabajo de los prestadores de servicios de salud.

**Métodos**: Se utilizó una investigación descriptiva con un diseño cuantitativo empleando la regresión logística multinomial.

**Resultados**: Los resultados demuestran una alta prevalencia de violencia contra los trabajadores de la salud en los hospitales de Karachi. La violencia puede ser de naturaleza física, verbal y psicosexual, y tiene consecuencias negativas para la salud y bienestar de los trabajadores.

**Conclusions**: Las medidas de seguridad implementadas en los hospitales, especialmente en las unidades de pediatría y ginecología, son esenciales para prevenir la violencia en el lugar de trabajo.

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**Abstract**

The violence against health workers in Karachi, Pakistan, is a serious problem that needs to be addressed. This study aimed to explore the perception of current security measures and their effectiveness in reducing workplace violence.

**Methods**: A cross-sectional study was conducted among healthcare providers in Karachi. The data was analyzed using multivariate logistic regression.

**Results**: The results showed a high prevalence of workplace violence against health workers, with physical, verbal, and psychological forms. The negative impact on health and wellbeing was highlighted.

**Conclusions**: Security measures implemented in hospitals, particularly in pediatric and gynecology units, are essential to prevent workplace violence.

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**Palabras clave**: violencia en el trabajo, prestadores de atención médica, seguridad en el trabajo, Pakistán, pediatría, ginecología.

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