Violent Attacks against Guardians of Healing: A Proposed Enhanced Security Program for Medical Practitioners

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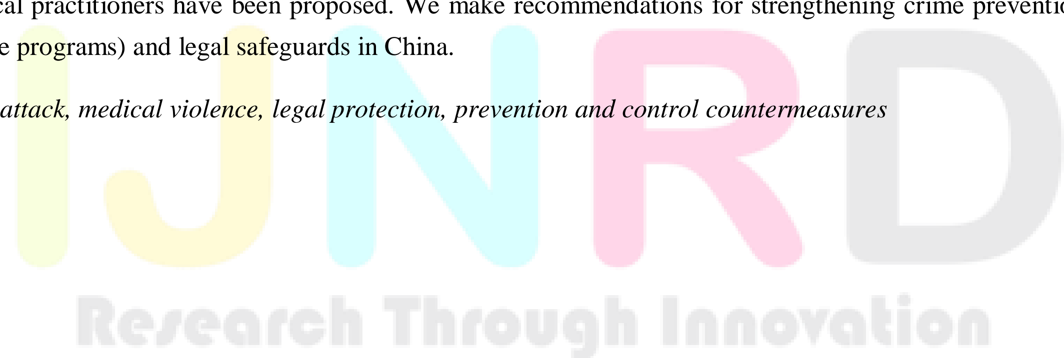
Abstract: Violent crimes against medical personnel not only jeopardize the physical and mental health of medical staff but also have a negative impact on the entire medical environment. Therefore, it is important to determine the prevalence of violent attacks on medical personnel and to invest in crime prevention programs and legal safeguards. This descriptive-correlational study aimed to determine the violent attacks against guardians of healing: a proposed enhanced security program for medical practitioners. The population of this study consisted of 305 nurses and doctors from China. The results showed that most of the respondents were nurses, female, 31 to 40 years old, mostly with a bachelor's degree, working in the surgical department, and with 11 to 15 years of medical experience. Doctors' offices were the most likely location for violent attacks, followed by hospital rooms. Physical assault, emotional abuse and verbal harassment are common types of violent attacks. Based on the results of this study, enhanced security programs for medical practitioners have been proposed. We make recommendations for strengthening crime prevention programs (or victim assistance programs) and legal safeguards in China.

Keywords - violent attack, medical violence, legal protection, prevention and control countermeasures



I. Introduction

In China, the escalating aging of the population and the rapid growth in public demand for medical services have contributed to an alarming increase in violent attacks on medical facilities and personnel. A survey conducted on primary doctors in northern Shaanxi, China, revealed that 39.0% of them had experienced violent attacks from patients (Bhatti et al., 2021). The findings disclosed that 66% of physicians had encountered conflicts with patients to varying degrees, with verbal violence being the most prevalent at 51%. Disturbingly, the Work report of the Supreme People's Procuratorate for 2019 reported 3,202 prosecutions related to crimes like "injuring doctors by violence" and the disruption of medical order by mob activities. Similar issues regarding violent attacks on health facilities have also been reported in other countries. According to a survey conducted by Hamzaoglu and Türk in 2019, about 44.3% of medical workers experienced intentional injuries, insults, sexual harassment, and other violent attacks from patients and their families (Nevo et al., 2019).

In response to these alarming trends, the Chinese government has implemented numerous measures to address violent attacks on medical facilities, such as augmenting security personnel and prohibiting patients from carrying weapons, yet the incidence of such attacks remains persistently high. These acts of violence disrupt the normal functioning of hospitals, impede the healthy development of the medical and health sectors, and violate the legitimate rights and interests of medical personnel. It is imperative to acknowledge that violence in healthcare settings is not an isolated social phenomenon. Simply strengthening security measures is insufficient. The government should prioritize healthcare system improvements and legal protections, refine legislative and judicial processes, and establish a comprehensive crisis management system for violence in medical facilities. Strategies for resolving diverse disputes must also be developed.

Given that China represents approximately one-fifth of the world's population, its healthcare workforce is extensive. Research on violent attacks against medical personnel can have a considerable impact on promoting sound legislation in China and addressing this issue on a global scale. As China's experiences and findings are shared with the global community, other nations can draw from these insights to formulate effective legal frameworks tailored to their specific circumstances. Article 31 of the Criminal Law Amendment (IX) has already incorporated provisions on disturbances to medical order into criminal law to regulate offenses related to the disturbance of social order. However, it is evident that medical crimes against healthcare professionals and the disruption of medical order persist. This underscores the undeniable reality that the disruption of medical order remains a grave social concern in our country.

Objectives of the Study

The study aims to provide a comprehensive understanding of the extent of violent assaults against medical personnel and to provide insights for strengthening crime prevention programs and legal safeguards. Specific objectives include understanding the characteristics of the victims, determining the causes, types, and severity of the attacks, assessing the impact of the attacks on the physical, psychosocial and economic aspects of the victims, exploring the victims' strategies for coping with the violent attacks and examining the significant differences under the variables of the victims' characteristics.

Literature Review

Medical Staff in China

China boasts the world's most extensive healthcare service system, ranking among the countries with the most significant advancements in the Global Health Care Access and Quality Index. Chinese medical personnel are increasingly burdened due to surging demands for healthcare services, particularly exacerbated by the COVID-19 pandemic. However, the relentless demands and the challenging work environment have taken a toll on their mental well-being, with medical personnel facing a high risk of mental health issues such as anxiety and depression (He et al., 2019).

Violent Attacks on Medical Staff

Medical workplace violence is defined as abuse, threats, or assaults targeting healthcare personnel in their workplace, resulting in detrimental effects on their safety, well-being, and health (Xie, 2019). This form of violence can be categorized into three types: psychological violence, including verbal abuse and threats against medical personnel; physical attacks on medical personnel resulting in visible injuries and, in severe cases, permanent disability or death; and sexual harassment or assault of medical staff.

Globally, violence against medical personnel is prevalent, with Asian countries showing a relatively lower incidence (20%-25%) compared to other regions but displaying a significant upward trend (Liu et al., 2021).

In recent years, China's healthcare system reform has encountered numerous challenges, leading to frequent medical disputes and a high incidence of violent attacks against medical personnel. Violent attacks against medical personnel remain a critical issue in Chinese society, necessitating comprehensive early warning and prevention systems, as well as legal support to mitigate the occurrence of violent incidents.

Violent Attacks in China

Over recent years, the incidence of violent attacks on medical workers in China has steadily risen. According to a 2013 survey conducted by the Chinese Hospital Association across 316 hospitals nationwide, incidents of violence against medical staff increased from 47.7% to 63.7% between 2008 and 2012.

In recent years, the media have brought to light several vicious incidents of violent attacks on medical personnel. These events have violated the personal rights of medical professionals and heightened the frequency of such attacks. Such acts of medical violence have profoundly disrupted normal medical operations, posed significant threats to the lives and health of medical staff, generated adverse societal impacts, and prompted widespread concern.

Causes of the Violent Attack

The causes behind violent attacks on medical personnel are multifaceted and intricate. The specific factors are as follows: Patient Dissatisfaction, Hospital Quality and Resources, Media Influence, and Legal Framework.

Prevention Programs on Violent Attacks

Workplace violence against medical personnel not only endangers their personal safety but also disrupts the normal medical care process. Verbal violence is the most common form of workplace violence encountered by medical staff, followed by physical violence and sexual harassment. Several factors contribute to this violence, including inadequate health laws and regulations, poor doctor-patient communication, inadequate communication skills, and poor patient experiences. Additionally, medical personnel often lack awareness of the current situation, contributing factors, and self-protection strategies when faced with violent incidents (Zheng et al., 2019).

II. METHODS

Research Design

This study employed a quantitative descriptive-correlational research design. A descriptive-correlational design aims to describe the relationship between variables without inferring causal relationships. In this study, the design was used to test the relationship among the causes of the attack, the impact of the attack, and the coping strategies of the victims.

Participants

The study included doctors and nurses who had experienced violent assaults while working in hospitals. The choice of these healthcare professionals was made because of their frequent patient contact, which makes them more likely to experience violent attacks. The study included a total of 305 respondents, who came from three different hospitals in China. To determine the sample size, an effect size of 0.25, a power probability of 0.95, and an alpha level of 0.05 were used.

Instruments

The primary data collection tool for this study was a questionnaire designed by the researcher. The questionnaire consisted of four parts:

1. Basic information about the interviewee (including gender, age, education level, position, and department).
2. Evaluation of the nature of violent attacks (including locations, types, and reasons for attacks).
3. Evaluation of the impact of violent attacks (physical, psychological, and economic).
4. Evaluation of the response to violent attacks (by the victim and the hospital).

The questionnaire was validated by the researcher's adviser and three subject experts, one from the hospital with expertise in workplace violence and two from the academic field. A pilot test was conducted, and reliability analysis demonstrated good internal consistency.

Data Gathering Procedure

The data collection process involved the administration of the survey questionnaire. At the beginning of the questionnaire, the purpose of the study was explained, and qualifying questions were included to ensure that respondents had experienced violence in a hospital setting. After obtaining their consent, the survey continued. The questionnaire was designed to minimize interference and guide respondents in completing it objectively and independently.

Data Analysis

Data analysis involved several statistical tools. The demographic profile of the respondents was described using frequency and percentage distribution. Weighted mean and ranking were used to assess the violent attacks experienced by nurses and doctors. Statistical tests, including the Mann-Whitney U test and Kruskal-Walli's test, were utilized to determine significant differences. Spearman's rank correlation coefficient (Spearman rho) was employed to test significant relationships between variables. A Likert Scale was used for variable assessment with corresponding categories. Data analysis was conducted using statistical software (PASW version 26) with an alpha level of 0.05.

Ethical Consideration

Ethical considerations were taken into account throughout the research. Respondents were informed of the study's purpose before participation, and their consent was obtained. The questionnaire survey was administered individually, and all data were treated confidentially. The collected information did not include personally identifying details.

III. RESULTS AND DISCUSSION

Table 1 Percentage Distribution of the Respondents Profile

Position	Frequency	Percentage（%）
Nurse	160	52.46
Doctor	145	47.54
Sex		
Male	119	39.02
Female	186	60.98
Age		
21 to 30 years old	85	27.87
31 to 40 years old	95	31.15
41 to 50 years old	72	23.61
51 years old and above	53	17.38
Education Attainment		
Bachelor's degree	197	64.59
Master's degree	82	26.89
Ph.D. graduation	26	8.52
Department		
Internal Medicine	51	16.72
Surgery	52	17.05
Psychiatric Department	41	13.44
Emergency Department	41	13.44
Geriatrics Department	40	13.11
Obstetrics and Gynecology	40	13.11
Pediatrics	40	13.11

Length of Service as Medical Personnel		
1-5 years	53	17.38
6-10 years	60	19.67
11-15 years	91	29.84
16-20 years	51	16.72
More than 21 years	50	16.39
Total	305	100.00

Table 1 presents a comprehensive profile of the study's respondents, which includes various demographic and professional characteristics (Position, Sex, Age, Education Attainment, and Length of Service as Medical Personnel).In summary, the profile of the respondents provides a comprehensive understanding of the composition of the healthcare workforce participating in this study, with nurses, female professionals, and individuals aged 21 to 40 years being prominent. This diversity is essential for addressing China's evolving healthcare needs.

Table 2 Violent Attacks in terms of Place

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Violent attacks happen in the Ward.	3.56	Strongly Agree	2
2. Violent attacks happen at the Doctor's Office.	3.57	Strongly Agree	1
3. Violent attacks happen at the Nurse's station.	3.46	Agree	3
4. Violent attacks happen in the Treatment room.	3.43	Agree	4
5. Violent attacks happen in the secluded area of the hospital.	3.43	Agree	4
Composite Mean	3.40	Agree	

Legend: 3.50-4.00 = Strongly Agree; 2.50-3.49 = Agree; 1.50-2.49 = Disagree; 1-1.49 = Strongly Disagree

Table 2 presents the nature of the places where violent attacks occurred, as perceived by the respondents. The composite mean for this aspect of the study is 3.40, indicating a general agreement among the respondents regarding the occurrence of violent attacks in various areas within the hospital.

Notably, the Doctor's Office stands out with a high weighted mean score of 3.57, ranking first. This score reflects a strong consensus among the respondents regarding the occurrence of violent attacks in this crucial space for patient consultations. These findings underscore the seriousness of the threat posed to medical staff in their own offices. It is essential to address this issue to ensure a safer work environment for healthcare professionals.

Following closely, the Ward received a weighted mean score of 3.56 and is ranked second. The strong agreement on violent attacks in this central area for patient care and treatment highlights significant concerns about patient safety and the well-being of medical staff. Safety measures and policies within ward areas need to be reviewed and enhanced to mitigate potential violence.

The Nurse's Station, with a slightly lower weighted mean score of 3.46, is ranked third. This area serves as a central hub for coordinating patient care and medical activities, making any occurrence of violence disruptive to healthcare operations. The findings emphasize the need to bolster security measures and develop protocols for staff safety in these central locations.

Both the Treatment Room and Secluded Area received the same agreeable weighted mean score of 3.43, ranking fourth. These findings indicate that respondents perceive violent attacks occurring in these areas. Consequently, safety measures, both physical and procedural, need to be further assessed and possibly redesigned to ensure staff and patient safety.

The composite mean of 3.40 reflects a general consensus among the respondents that violent attacks occur in various hospital areas, underscoring the urgency to address violence in healthcare settings. The implications of these findings are significant, given the multifaceted impact of violence in healthcare settings.

Violence in healthcare settings affects not only patient care but also the well-being of medical personnel. Research indicates that patient care can be negatively impacted by violence in healthcare settings, particularly in emergency departments (Dopelt et al.,

2022). Additionally, patients who witness or experience violence during their hospital stay may develop anxiety, fear, and a lack of trust in the healthcare system.

Violence can also hinder effective communication between patients and medical personnel, which can compromise the quality of care provided. Patients who experience violence from healthcare staff reported feelings of humiliation, fear, and reduced willingness to share health-related concerns.

The psychological impact of violence on medical personnel cannot be overlooked. Studies have shown that medical staff exposed to violent incidents experience higher levels of stress, anxiety, and job dissatisfaction (Alhaffar & Janos, 2021). Prolonged exposure to violence can lead to burnout, emotional exhaustion, and even symptoms of post-traumatic stress disorder (PTSD) among healthcare professionals.

Furthermore, the fear of potential violence may affect medical personnel's decision-making and clinical performance. A study found that nurses who perceived a higher risk of violence in their workplace reported lower job performance and job satisfaction, ultimately reducing the quality of care they provide (Schmitt et al., 2021).

Beyond the direct impact on individuals, violence in healthcare settings can create a hostile work environment, affecting staff morale and retention. Exposure to violence has been associated with decreased job satisfaction and increased turnover intentions among healthcare professionals. Furthermore, it can impact the overall patient safety culture within the institution, leading to communication breakdowns, errors in patient care, and increased risk for adverse events.

In conclusion, the results of this study underscore the urgency of addressing violence in healthcare settings. The multifaceted impact of violence on patient care, medical personnel, workplace morale, patient safety culture, and legal and ethical considerations necessitates a comprehensive approach to mitigate this issue. Implementing violence prevention strategies, providing psychological support for affected healthcare professionals, and fostering a culture of safety are essential steps in creating a healthcare environment that prioritizes patient well-being and the safety of medical personnel.

Table 3 Violent Attacks in terms of Type

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. The type of violent attack can be physical assault.	3.64	Strongly Agree	1
2. The type of violent attack can be emotional abuse.	3.61	Strongly Agree	2
3. The type of violent attack can be threats and intimidation.	3.57	Strongly Agree	4
4. The type of violent attack can be verbal harassment.	3.60	Strongly Agree	3
5. The type of violent attack can be physical or sexual harassment.	3.54	Strongly Agree	5
Composite Mean	3.59	Strongly Agree	

Legend: 3.50-4.00 = Strongly Agree; 2.50-3.49 = Agree; 1.50-2.49 = Disagree; 1-1.49 = Strongly Disagree

Table 3 presents the nature of different types of violent attacks within healthcare settings. Respondents strongly agree with these types of violence, resulting in a composite mean of 3.59. This emphasizes the urgent need for preventive measures to safeguard the well-being of medical personnel.

Physical assault emerges as the most concerning type of violence, with a weighted mean score of 3.64 and the highest rank. This indicates a significant risk of physical harm in healthcare settings, threatening the safety of medical personnel. Immediate attention and robust preventive measures are necessary to address physical assault and create a secure environment. Physical assault, as the most concerning Type of violence in healthcare settings, is a critical issue that requires careful examination and effective interventions.

Research indicates that physical assault in healthcare settings can result from various factors, including high levels of stress and emotions among patients and their families, long waiting times, overcrowded facilities, and substance abuse. Patients may become

agitated or aggressive due to pain, frustration, or feelings of powerlessness, leading to violent outbursts. Additionally, underlying mental health conditions and a history of aggressive behavior can also contribute to the risk of physical assault.

The consequences of physical assault can be severe for medical personnel, leading to physical injuries, emotional trauma, decreased job satisfaction, and potential turnover. It can also create a tense and fearful atmosphere in healthcare settings, affecting the overall quality of patient care and patient-provider relationships.

To address physical assault effectively, hospitals and healthcare institutions must implement comprehensive violence prevention strategies. These may include enhanced security measures, training programs for medical personnel in de-escalation techniques, and fostering a culture of safety and respect. By understanding the underlying factors contributing to physical assault and implementing evidence-based interventions, healthcare institutions can create a safe and secure environment for medical personnel.

Emotional abuse, ranked second with a weighted mean score of 3.61, highlighting the impact of non-physical behaviors on individuals in healthcare settings. The psychological distress caused by emotional abuse affects the job satisfaction of medical personnel and patients' perception of healthcare services. Promoting a safe and supportive work environment is vital to prevent emotional abuse and enhance the mental well-being of both patients and healthcare professionals.

Emotional abuse, as the second most concerning Type of violence in healthcare settings, is a significant issue that warrants careful attention and targeted interventions. This form of abuse can have profound effects on the well-being and job satisfaction of medical personnel and can also impact patients' perception of healthcare services.

Research indicates that emotional abuse in healthcare settings may manifest through various behaviors, such as verbal insults, humiliation, belittling, and demeaning comments directed at medical personnel. Such negative interactions can lead to psychological distress, anxiety, and feelings of powerlessness among healthcare professionals. Additionally, patients who experience emotional abuse from medical personnel may develop a negative perception of the quality of care and feel disengaged from the treatment process.

The consequences of emotional abuse can be far-reaching for medical personnel, leading to decreased job satisfaction, increased burnout, and reduced commitment to their profession. Moreover, it may affect their performance and ability to provide compassionate and effective care to patients. Patients who experience emotional abuse may develop mistrust toward medical personnel and become less engaged in their treatment, potentially leading to suboptimal health outcomes.

To address emotional abuse effectively, healthcare institutions must prioritize the creation of a safe and supportive work environment. Implementing training programs that emphasize empathetic communication, active listening, and conflict resolution can equip medical personnel with the necessary skills to engage with patients in a respectful and compassionate manner (Mento et al., 2020). Fostering a culture of respect and open communication within healthcare teams can promote a positive work environment and reduce the likelihood of emotional abuse incidents.

In conclusion, the high weighted mean score and ranking of emotional abuse as a concerning type of violence in healthcare settings underscore the need for proactive measures to address this issue.

Verbal harassment ranked third with a weighted mean score of 3.60, represents a pressing concern in healthcare settings that demands attention and comprehensive interventions to create a respectful and safe work environment.

Research indicates that verbal harassment in healthcare settings can take various forms, such as derogatory remarks, offensive language, and aggressive communication toward medical personnel or among colleagues. Such negative interactions can create a hostile work environment, leading to strained relationships among team members and compromising patient care quality.

The consequences of verbal harassment can be detrimental to the overall functioning of healthcare teams and patient care outcomes. Medical personnel who experience verbal harassment may feel demotivated and emotionally distressed, leading to decreased job performance and potential burnout. Moreover, witnessing or being subjected to verbal harassment can result in decreased trust and collaboration among healthcare team members, hindering effective coordination and communication in patient care settings.

To effectively address verbal harassment, healthcare institutions must implement workplace violence prevention programs and support systems. These programs should focus on raising awareness about the impact of threats and intimidation, providing training on de-escalation techniques, and promoting effective communication strategies in handling challenging situations. Ensuring that medical personnel have access to confidential reporting mechanisms and supportive resources can encourage them to come forward with their experiences and seek assistance.

Threats and intimidation, with a weighted mean score of 3.57, shed light on the concerning challenges healthcare professionals face within their work environment. Threats and intimidation create an atmosphere of fear and uncertainty, significantly impacting the mental well-being and job performance of medical personnel.

Research indicates that threats and intimidation can take various forms in healthcare settings, ranging from verbal threats of harm to nonverbal intimidating behaviors. Such experiences can lead to feelings of vulnerability and powerlessness among medical personnel, causing increased levels of stress, anxiety, and emotional distress. Moreover, exposure to threats and intimidation can contribute to burnout and emotional exhaustion, leading to decreased job satisfaction and potentially impacting the overall quality of patient care.

To address threats and intimidation effectively, healthcare institutions must implement workplace violence prevention programs and support systems. These programs should focus on raising awareness about the impact of threats and intimidation, providing training on de-escalation techniques, and promoting effective communication strategies in handling challenging situations. Ensuring that medical personnel have access to confidential reporting mechanisms and supportive resources can encourage them to come forward with their experiences and seek assistance.

Physical and sexual harassment ranked fifth with a weighted mean score of 3.54, constitutes a significant concern that necessitates targeted interventions to prevent and address this form of violence in healthcare settings.

Research reveals that physical sexual harassment in healthcare settings encompasses unwelcome and inappropriate physical advances, comments, or gestures of a sexual nature directed toward medical personnel (Tong et al.,2019). Such incidents can cause emotional distress, trauma, and a sense of vulnerability among healthcare professionals, leading to adverse psychological effects and potentially impacting their job performance and well-being.

The consequences of physical, sexual harassment can be far-reaching and devastating for medical personnel. Those who experience such harassment may feel emotionally traumatized, experience anxiety, and suffer from reduced self-esteem. These negative effects may affect their job satisfaction, engagement in patient care, and willingness to continue working in healthcare settings.

To address physical sexual harassment effectively, healthcare institutions must adopt a zero-tolerance policy towards all forms of harassment and take proactive measures to promote a safe and respectful work environment. Implementing comprehensive training programs on preventing workplace harassment and sexual misconduct can educate medical personnel about their rights and responsibilities and encourage them to report any instances of harassment.

Promoting a culture of respect and empathy within healthcare teams is vital to prevent physical sexual harassment. Leadership should lead by example and enforce a strict code of conduct that condemns any form of harassment or inappropriate behavior (Yang et al.,2019). Creating avenues for anonymous reporting and offering support services for victims of harassment can foster a supportive environment that encourages medical personnel to come forward with their concerns.

IV.CONCLUSION

Based on the results of this study, the following conclusion were drawn:

1. The majority of the respondents who encountered violent attacks in hospitals were nurses, female, 31 to 40 years old, mostly with bachelor’s degrees, in the surgery department, with 11-15 years of length of service as medical personnel
2. Sex, age, education attainment, and department showed significant relationships with the nature of violent attacks.
3. The economic impact of violent attacks was significantly influenced by factors such as age, education attainment, department, and length of service as medical personnel. However, no significant associations were observed between demographic factors and the physical or psychological impact of violent attacks.
4. There are significant relationships between response to violent attacks and both the victimized medical personnel and the hospital where the attack occurred. Specifically, the response of victimized medical personnel was significantly influenced by their position, sex, age, education attainment, and department. Similarly, the response of the hospital was significantly affected by the position and length of service of medical personnel.
5. In terms of the nature of violent attacks, there were significant correlations between the type of attack and its psychological and economic impact, emphasizing the importance of addressing the emotional and financial consequences of such incidents. Additionally, the response to violent attacks by victimized medical personnel and hospitals also showed significant relationships. The response of medical personnel was significantly influenced by the place of attack, while hospitals' response was influenced by both the place and type of attack.

V.RECOMMENDATION

1. Focus on Victim Assistance: Concentrate on the victim assistance program as the primary objective of the study, ensuring that it is comprehensive and addresses the needs of medical personnel affected by violence.
2. Legal Guarantee and Crime Prevention: Develop a legal framework that includes guarantees for the safety of healthcare workers and implements crime prevention programs within healthcare facilities.
3. Program Format and Evaluation: Create a well-defined program with a clear timeline, allocated resources, and success indicators based on key results. Establish a robust evaluation system to measure the effectiveness of the victim assistance and crime prevention programs.
4. Specific Impact: Clearly outline the specific impacts of the victim assistance and crime prevention programs, such as reduced incidents of violence, improved employee well-being, and a safer healthcare environment.
5. Feasibility Assessment: Conduct a thorough feasibility study to ensure that the recommended programs are practical, financially viable, and achievable within the healthcare context.
6. Victim Assistance: Develop a victim assistance program that encompasses legal, psychological, and medical support for medical personnel affected by violence, focusing on their well-being and recovery.
7. Specific Impact: Specify the measurable outcomes of the victim assistance and crime prevention programs, such as a percentage reduction in violent incidents, improved employee morale, and a safer working environment.

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