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Katherine A. Meese
University of Alabama at Birmingham

Alejandra Colón-López
University of Alabama at Birmingham

Aoyjai P. Montgomery
University of Alabama at Birmingham

Laurence M. Boitet
University of Alabama at BIrmingham

David A. Rogers
University of Alabama at Birmingham

See next page for additional authors

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Authors

Katherine A. Meese, Alejandra Colón-López, Aoyjai P. Montgomery, Laurence M. Boitet, David A. Rogers, and Patricia A. Patrician

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Research

Rules of engagement: The role of mistreatment from patients in the nurse, physician and advanced practice provider experience

Katherine A. Meese, *University of Alabama at Birmingham, kameese@uab.edu*
Alejandra A. Colón-López, *University of Alabama at Birmingham, colon92@uab.edu*
Aoyjai P. Montgomery, *University of Alabama at Birmingham, Aoyjai@uab.edu*
Laurence M. Boitet, *University of Alabama at Birmingham, lmblac@uab.edu*
David A. Rogers, *University of Alabama at Birmingham, darogers1@uabmc.edu*
Patricia A. Patrician, *University of Alabama at Birmingham, ppatrici@uab.edu*

Abstract
The objective of this study is to examine the incidence of reported stress due to mistreatment by patients toward clinicians and the role of mistreatment from patients along with organizational factors in clinician distress. A survey of clinicians was conducted at a large academic medical center, resulting in a final analytic sample of 1,682 physicians, nurses, advanced practice providers and clinical support staff. Nurses reported the greatest incidence of mistreatment by patients as a major stressor (18.69%), followed by Advanced Practice Providers (11.26%), Clinical Support Staff (10.36%), and Physicians (7.69%). Logistic regression analysis was conducted to determine the relationship of individual- and organization-level characteristics with the odds of reporting mistreatment from patients as a major stressor. Overall findings indicate that nurses and those who work in the ER and ambulatory or outpatient clinics were more likely to be stressed from mistreatment by patients than other clinicians. Stress due to mistreatment by patients was also associated with higher Well-Being Index (WBI) distress scores, rapid changes in workflows or policies, ongoing care of COVID-19 patients, under-staffing, and low perceived organizational support. Gender or sexual minorities (not identifying as male or female) and younger (18-34 years of age) healthcare workers were also more likely to experience stress from mistreatment by patients. Individual resilience was not statistically significantly associated with reported stress from mistreatment by patients. Organizations must examine expectations for patient and visitor behavior in tandem with service standards for clinicians toward patients.

Keywords
Patient incivility, mistreatment, patient experience, clinician experience, nurse, physician, advanced practice provider

Introduction

Violence and mistreatment toward healthcare workers has been on the rise. Before the COVID-19 pandemic, a meta-analysis found that over 61% of healthcare workers reported experiencing workplace violence, including physical violence, and verbal threats, bullying and harassment.[1] Furthermore, 20% of participants in a study of over 15,000 nurses indicated an increase in violence on the job during the first year of the pandemic.[2] A study of 1,500 physicians reported that 23% experienced mistreatment at work, and patients and visitors were the most common source of mistreatment at 16%.[3] Health systems have responded using a number of strategies, including the installation of panic buttons in patient rooms so clinicians can call for help if aggression or violence escalates.[4]

Simultaneously, health systems across the United States are facing historic staffing shortages, driven in part by The Great Resignation and the exodus of workers due to COVID-19.[5] During the first year of the pandemic, 18% of healthcare workers left their jobs.[6] Additionally, a recent report shows that 47% of U.S. healthcare workers plan to leave their role within the next two to three years, which may further exacerbate existing workforce shortages.[7] This poses significant threats to the ability of health systems to provide care to their communities.

Given the widespread staffing shortages and turnover intentions of healthcare workers, an intense focus must be placed on creating work environments and cultures that can support the worker and increase their likelihood of remaining in the organization and profession. Alarming reports of increased violence and mistreatment at work by patients may lead to a further exodus of healthcare workers from organizations and may worsen existing staffing shortages. This creates an environment where there are fewer people to do the work and potentially results in a substantial impact on clinicians' ability to

provide high-quality clinical care and service to patients. In the same way the healthcare industry has dedicated efforts and resources to improving the patient experience, it must now do so for the clinician experience. The challenge is to do so in an environment where the patient and clinician experiences may be in direct conflict. Addressing clinician mistreatment by patients may negatively impact the patient's experience, while failure to do so may negatively impact the clinician's experience.

The Beryl Institute's Experience Framework for patient experience suggests that culture and leadership, as well as staff and provider engagement, are core pillars of an organization's ability to provide an excellent patient experience.[8] Therefore, it is important to identify how organizational factors relate to mistreatment from patients, and whether this is associated with negative outcomes for clinician experiences at work. Efforts to improve patient experience have led to a focus on positive, service-oriented behaviors from clinicians toward patients. However, expectations for patient behavior are both less standardized and less prevalent in healthcare organizations.

There is an important gap in the literature regarding mistreatment from patients toward healthcare workers. Before the onset of the COVID-19 pandemic, patient incivility toward nurses was associated with burnout and subsequently turnover intent, job dissatisfaction, and patient dissatisfaction.[9-12] Recent literature has exposed an increase in incivility of patients towards nurses compared to pre-pandemic times, which was exacerbated by perceived failure of leadership to address workplace stressors, conflict with colleagues, and hostility toward healthcare workers from the pubic.[13] Other recent reports of physician mistreatment correlated with occupational distress, with perceived protective work environments correlating with occupational well-being.[3] While the prevalence of depression and anxiety has increased in healthcare workers since the onset of the pandemic,[14] the authors are not aware of any existing studies that have examined patient mistreatment relative to the entire healthcare team, including whether individual resilience plays a role, the role of organizational support, and the potential relationship to overall distress. Furthermore, to the authors' knowledge, this is the first study to assess difference in stress from mistreatment by patients for gender and sexual minorities. The purpose of this paper is to explore the features of those healthcare workers that report mistreatment from patients as a major stressor, and to identify elements of the work environment that are associated with stress related to patient mistreatment of clinicians across the entire healthcare team.

Methods

Study Sample and Data Collection

An anonymous, cross-sectional survey was administered via email to 6,276 employees at a large medical center in the Southeastern United States. Data were collected between June and July 2020 using a self-reported, internet-based survey designed on the Qualtrics platform. The survey measured distress, resilience, work and non-work-related stressors, organizational-level factors, and experiences with patient mistreatment across the medical system. Physicians, advanced practice providers, nurses, and clinical support staff were included in the target sample.

A total of 3,196 clinician and non-clinical healthcare workers participated in the survey, of which though 630 cases (20%) had missing information, for a response rate of 41%. Of the larger sample, 1,682 respondents held clinical health care roles, including physicians, nurses, advanced practice providers (APPs) and clinical support staff. This study was reviewed and approved by the organization's Institutional Review Board.

Dependent Variables

Participants reported work-related and clinical stressors that included general anxiety and uncertainty, fear of job loss, and decreased income. From this list of stressors, we chose mistreatment by patients as the outcome variable for this study. Cases in which participants selected experiencing mistreatment by patients as a major stressor received a value of 1, and those who did not select this as a major stressor received a value of 0.

Independent Variables

Study participants provided information regarding their job role, work location, gender, age, and race. Nurses were independently classified and used as an indicator variable. Work location was represented using Emergency Room (ER) and Ambulatory, Outpatient, and Clinic as indicator variables. Gender was represented in three categories: Non gender or sexual minority (male and female), gender or sexual minority (not male or female) and prefer not to answer. Age of the participants was classified into four categories: 18-34, 35-54, 55 or older, and prefer not to answer. Race was divided into three categories: white, non-white, and prefer not to answer.

A validated 2-item Connor-Davidson Resilience (CD-RISC-2) scale[15] was used to measure individual resilience, resulting in scores ranging from 0 (lowest resilience) to 8 (highest resilience). Cronbach's alpha coefficient for reliability of CD-RISC-2 was 0.714 (See Appendix A). A validated 9-item Well-Being (WBI) tool was employed to capture levels of distress.[16-19] WBI scores range from -2 to 9, with higher scores indicating greater distress. WBI scores equal to or greater than 2 are interpreted as "high

distress" for the general population. Well-established scholarship link high WBI distress scores with greater risk of poor quality of life, medical errors, burnout, and suicidality.[16,17,20] Cronbach's alpha coefficient for reliability of WBI was 0.747 (See Appendix A).

The previously reported Perceived Organizational Support measurement[21] was adapted into 3-items and measured in a 5-point Likert scale. The items measured the degree to which the organization values the extra efforts and values of the individual, individual well-being, and workplace satisfaction, which resulted in a score that ranged from 3 to 15. Cronbach's alpha coefficient for reliability of perceived organizational support was 0.896 (See Appendix A).

Respondents were further asked to report their most concerning work and clinical related stressors from a predetermined list of stressors developed with input from over 20 clinical department "wellness champions," including mistreatment from patients, heavy workloads or long hours, rapid change in workflows or policies, ongoing care of COVID-19 patients, perception that they could not give patients the help or treatment they deserve, and the feeling that their work area was understaffed.

Data Analysis

Categorical participant descriptive statistics and stressors were represented by frequency and percentages. Perceived organizational support and CD-RISC-2 measures were represented by mean and standard deviation. Chi-squared analysis was used to test the association between the outcome (clinician mistreatment by patients) and all categorical predictors. Bivariate binary logistic regression was performed to test the association between numeric predictors. Multivariable binary logistic regression analysis was utilized to predict the odds ratio of mistreatment by patients as a major stressor when considering a number of individual and organizational level factors. We examined Pseudo R-squares, the Akaike's Information Criterion (AIC) and Bayesian Information Criterion (BIC) to assure the best selection of variables for the model. The absence of multicollinearity was checked using variance inflation factor (VIF) values. The VIF values of all variables were between 1.05 and 1.79 which indicated the absence of problematic multicollinearity.

Results

Descriptive Analysis

Table 1 includes the percent and means of all predictor variables selected for this study from an analytic sample of 1,682 healthcare workers. Eighteen percent of participants identified as a nurse (18.08%) and participants' job role was significantly associated with clinician mistreatment by patients as a major stressor ($p<.001$). Approximately ten percent of the total sample of respondents selected mistreatment by patients as a major stressor (9.99%). Nurses reported the greatest incidence of stress due to mistreatment by patients as a major stressor (18.69%), followed by Advanced Practice Providers (11.26%), Clinical Support Staff (10.36%), and Physicians (7.69%). Concerning work location, 4.46% of respondents indicated they spend most of their time working at the Emergency Room (ER), whereas 33.53% chose Ambulatory, Outpatient, or Clinic as their main work area.

More nurses chose heavy workload (43.61%, $p<.001$), rapid changes in workflows or policies (36.45%, $p<.001$), ongoing care of COVID-19 patients (17.45%, $p<.001$), feelings of not giving patients the help or treatment they need (28.97%, $p<.001$), and department or unit understaffing issues (57.32%, $p<.001$) as major stressors, compared to other healthcare workers. On average, nurses showed lower WBI scores ($M=1.75$, $SD=2.62$) compared to other clinicians. Nurses also felt less supported by their organization ($M=8.79$, $SD=3.25$) ($p<.001$). Nurses additionally showed higher individual resilience scores ($M=6.79$, $SD=1.08$) than other employees ($M=6.67$, $SD=1.20$).

Most respondents identified as male or female (90.01%) and gender was significantly associated with mistreatment as a major stressor ($p<.05$). Concerning age, nearly forty percent of participants indicated they were between 35 to 54 years old (30.68%). More than half of participants identified as white (66.35%).

Multivariate Regression

Table 2 presents the odds ratio (OR) and standard errors (SE) of binary logistic regression models predicting the odds of reporting mistreatment from patients as a major stressor. Nurses ($OR=2.84$, $p<.001$) and healthcare employees working in the emergency room (ER) ($OR=4.10$, $p<.001$) and Ambulatory, Outpatient or Clinic ($OR=2.87$, $p<.001$) showed higher odds of selecting mistreatment by patients as a major stressor. Healthcare employees who selected rapid changes in workflows or policies ($OR=1.70$, $p<.01$) as major stressors exhibited higher odds of choosing mistreatment as a major stressor. Employees who selected ongoing care of COVID-19 patients ($OR=2.28$, $p<.001$) and department or unit understaffing issues ($OR=1.55$, $p<.05$) as major stressors were more likely to select mistreatment by patients as a major stressor. Higher WBI distress scores were associated with higher odds of selecting mistreatment by patients as a major stressor ($OR=1.13$, $p<.01$). Healthcare workers who felt more supported by their organization exhibited lower odds of selecting mistreatment as a major stressor ($OR=0.91$, $p<.01$). Gender or sexual minorities ($OR=4.64$, $p<.05$) were more likely to select mistreatment by patients as a major stressor. On the contrary, 35-to-54-year-old

Table 1. Sample description (N=1,682)

	Nurses (N=321)			Others (N=1,361)			Total			
	M	(SD)	%	M	(SD)	%	M	(SD)	%	*p*[1]
Nurse [a]									18.08	
Mistreatment by patients as a major stressor [a]			18.69			7.94			9.99	***
Emergency Room [a]			1.25			5.22			4.46	***
Ambulatory, Outpatient, or Clinic [a]			29.91			34.39			33.53	*
Stressors										
Heavy workload or long hours [a]			43.61			42.47			42.69	***
Rapid changes in workflows or policies [a]			36.45			31.08			32.10	***
Ongoing care of COVID-19 patients [a]			17.45			12.27			13.26	***
Feelings of not giving patients the help or treatment they need [a]			28.97			17.41			19.62	***
Department or unit is under-staffed [a]			57.32			44.01			46.55	***
Well-being index [b]	1.75	(2.62)		1.81	(2.71)		1.80	(2.70)		***
Perceived Organizational Support [b]	8.79	(3.25)		9.27	(3.16)		9.18	(3.18)		***
Resiliency [b]	6.79	(1.08)		6.67	(1.20)		6.69	(1.81)		
Gender [c]										*
Non gender or sexual minority (Male or Female)			92.21			89.49			90.01	
Gender or sexual minority			0.62			0.51			0.54	
Prefer not to answer			7.17			9.99			9.45	
Age [a]										*
18-34			29.91			30.86			30.68	
35-54			36.14			40.85			39.95	
55 or older			25.23			15.65			17.84	
Prefer not to answer			8.72			12.64			11.89	
Race [a]										
White			73.21			64.73			66.35	
Non-White			14.95			20.57			19.50	
Prefer not to answer			11.84			14.70			14.15	

Note: M=Mean, SD=Standard Deviation

[1] Significance of Chi-Square, bivariate logistic regression, Fisher exact test determining the association between mistreatment by patient as a major stressor and the predicting variable.

[a] Chi-Square

[b] Bivariate logistic regression

[c] Fisher exact test

employees (OR=0.64, p<.05) had lower odds of selecting mistreatment as a major stressor.

Discussion

Sustaining a healthy workplace environment is an essential responsibility of everyone including healthcare organizations' administrative teams, healthcare professionals, patients, and visitors. The findings from this study highlight the existence of clinician mistreatment by patients and provide a broader understanding of mistreatment as a major stressor among healthcare providers. Overall findings indicate that healthcare providers who were more likely to be mistreated by patients were nurses, and those who work in the ER and ambulatory or outpatient clinics. Stress due to mistreatment by patients was also indicated by employees reporting the following: higher WBI distress score, rapid changes in workflows or policies, ongoing care of COVID-19 patients, under-staffing, and low perceived organizational support. Furthermore, gender or sexual minorities and younger (18-34 years of age) healthcare workers were also more likely to experience stress from mistreatment by patients.

Table 2. Logistic regression predicting odds ratio of mistreatment by patients as a major stressor (N=1,682)

	OR (SE)		
Nurse	2.84	(0.57)	***
Emergency Room	4.10	(1.37)	***
Ambulatory, Outpatient, or Clinic	2.87	(0.57)	***
Stressors			
Heavy workload or long hours	1.34	(0.27)	
Rapid changes in workflows or policies	1.70	(0.31)	**
Ongoing care of COVID-19 patients	2.28	(0.50)	***
Feelings of not giving patients the help or treatment they need	1.34	(0.27)	
Department or unit is under-staffed	1.55	(0.32)	*
Well-being index distress score	1.13	(0.05)	**
Perceived Organizational Support	0.91	(0.03)	**
Resiliency	1.05	(0.08)	
Gender (Ref.= Non gender or sexual minority)			
Gender or sexual minority	4.64	(3.41)	*
Prefer not to answer	0.78	(0.34)	
Age (Ref.=18-34)			
35-54	0.64	(0.14)	*
55 or older	0.80	(0.23)	
Prefer not to answer	1.03	(0.40)	
Race (Ref.= White)			
Non-White	1.00	(0.25)	
Prefer not to answer	1.07	(0.39)	
Model Fit			
Pseudo R-square	0.179		

Note: OR = Odds Ratio, SE = Standard Error, Ref. = Reference

*<.05, **<.01, ***<. 001

Nurses

Before the pandemic, 41.2% of nurses reported mistreatment by a patients, including verbal abuse, incivility, and aggression.[22] Here, we report that nurses are more likely than other healthcare professionals to be mistreated by patients. This is congruent with a study among Australian emergency department nurses during the COVID-19 pandemic, wherein one-third of nurses (37%) reported greater incivility at work and half of nurses reported that they witnessed more incivility than before the outbreak.[13] This study also reported higher incivility from patients and families during the pandemic in the US, targeted specifically at nurses. According to the nurses, this was largely due to visitor restrictions and rules mandating masking in healthcare facilities during the pandemic.[13] Nurses may be relatively easy targets for mistreatment from patients and families because of their constant and continuous accessibility in patient care areas. Nurses are not only the largest workforce in healthcare, but also devote more time to direct patient care than any other healthcare professional.[23] As such, they are also responsible for enforcing visitation rules, which could prompt violence by families desperately wanting to be with their loved ones.

Emergency Room and Ambulatory, Outpatient, or Clinic

Our findings show that the odds of mistreatment by patients is 4.10 and 2.87 times higher for those who work in the ER and ambulatory and outpatient clinics, respectively, compared to other settings. Both the ER and ambulatory settings are likely to contain the first exposure or encounter that the patient has with the healthcare system. Therefore, patients and visitors who are frustrated by challenges in accessing care or wait times may be more likely to take out their frustrations in these early interactions. These may wane as the patient receives more attention and follow-up during subsequent components of the visit, including admission to the inpatient setting. Additionally, patients in the inpatient or operating room setting may be given certain medications such as anesthetics or sedatives that could possibly reduce mistreatment toward healthcare workers. These results are supported by other literature on the topic.[24-26] ER nurses

are the first to interact with patients and their families as patients experience life-threatening illnesses and other medical conditions that predispose them to violence, such as acute psychosis.[24] Other reasons for the high frequency violence or abuse by patients in emergency departments include (1) 24/7 public access to emergency departments[25]; (2) vulnerability of ER staff due to lack of visible security[26]; and (3) long waiting times with a lack of patient privacy.[25]

Stressors

This study reveals several significant stressors that are related to mistreatment by patients including higher WBI distress scores, rapid changes in workflows or policies, ongoing care of COVID-19 patients, and department or unit understaffing.

Higher WBI Distress Score

Healthcare workers with higher WBI distress scores reported higher odds of experiencing mistreatment by patients as a major stressor. While the cross-sectional nature of this study does not allow us to comment on a causal relationship, there are two potential explanations for these findings: (1) Healthcare workers report higher WBI distress scores due to mistreatment by patients; or (2) Individuals reporting higher WBI distress scores are more susceptible to feeling stressed due to patient incivility, potentially in part due to psychological vulnerability compared to those with lower WBI distress scores. Regardless of the directionality, it is important to note that patient mistreatment of clinicians is an important component of the broader well-being conversation. Previous studies have noted that distress is linked to heavy workload among health care workers.[27] While heavy workload did not show statistical significance in this study, it is still an important factor to consider based on previous findings in the nursing literature. Healthcare providers including nurses are often faced with a heavy workload, high patient-nurse ratios, long working hours (12+ hours shifts), irregular shift (night shifts), and underpayment[28]. Heavy workloads are associated with nurses' capacity to deliver the care effectively, which could result in anxious and frustrated patients who become violent.[29,30] Furthermore, a previous study argued that staff workload is directly related to workplace violence and that patient or family complaints of nursing care mediate the relationship between the workload factors and workplace violence.[31]

Rapid changes in workflows or policies and ongoing care of COVID-19 patients

Even before the pandemic, the experience of incivility from patients and families toward healthcare providers has been documented,[32,33] which was further exacerbated by the sudden and profound changes in healthcare due to COVID-19, including visitor policy. The surveyed organization only allowed visitors for pediatrics, end-of-life care, or labor during the peak of the pandemic, which may have led to confusion and fear among patients and families. This was in part a result of the hospital's goal of minimizing COVID-19 transmission,[34] yet allowing visitors or individual support could improve patient experience and health outcomes (e.g., less fear, reduced delirium, faster recovery time, hospital safety surveillance including reducing patient falls and medical errors).[35-38]

Department or unit under-staffing

As previously mentioned, high patient-to-nurse ratios can introduce heavy workloads which relates to nurses' capacity to deliver care effectively, resulting in anxious and frustrated patients who may become violent.[29,30] This mistreatment of clinicians by patients may accelerate the high rate of nurses leaving their position or profession, which could lead to inadequate staffing, higher patient-to-nurse ratios, and increased workload of those who remain in the workplace. This catalyzes a vicious cycle of understaffing, heavy workloads, inability to meet patient needs, and patient incivility.[39] The National Institute for Occupational Safety and Health (NIOSH) notes that healthcare workplace violence disrupts quality nursing care, negatively impacts the healthcare setting, and is a leading cause of nurse attrition in the profession.[40]

Perceived organizational support

Here, we report that perceived organizational support was an important correlate of mistreatment by patients. This finding is congruent with a study that poses failure of leadership as a primary correlate of incivility among nurses. Nurses stated that leaders ignored their concerns (such as insufficient equipment and/or isolation protocols), ignored their emails, or were sequestered in their offices behind closed doors.[13] These experiences are the antithesis of organizational support. Organizations that do not address this clinical issue may create a cycle in which workers who feel unsupported experience greater distress regarding patient incivility because they perceive that the organization will not come to their aid based on past experiences.

Gender

A recent study of physician mistreatment found that women experienced mistreatment at nearly twice the rate of men; however, they noted that failure to allow for a non-binary gender selection as a notable limitation of the study.[3] In our study, gender and sexual minorities, including those who identified as non-binary or self-described, were more likely to report mistreatment by patients compared to individuals identifying as male or female. Though there are limited studies on this topic in the literature, a study among physicians reported that women and ethnic minorities were experiencing verbal mistreatment at rates higher than male physicians.[41] Studies should include gender and sexual minority healthcare workers in future analyses and attempt to understand the experiences of this population. In further

exploring their experiences, organizations can attempt to circumvent stressors that disproportionately affect these individuals.

Age

Here we found 18-34-year-old healthcare providers were more likely to report mistreatment by patients, compared to those who were 35-54 years of age. This is congruent with a study that evaluated the stressors of emergency department nurses, wherein younger nurses (22-31 years old) significantly reported a greater number of stressors than those who were 32-48 and 49-69 years old.[24] However, our findings conflict with a longitudinal study that found no relationship between nurses' age and patient mistreatment.[22] Cultural differences and work environments may explain these conflicting findings. It is important to note that our model controlled for individual resiliency, and this measure was not statistically significantly associated with stress from mistreatment from patients. Thus, we did not find support for a narrative that might suggest that younger clinicians feel more stressed from mistreatment by patients because they lack personal resilience. However, it could be postulated that younger employees have fewer experiences with patient incivility and are still developing their response and approach to this behavior. Additionally, it may be that younger employees represent an easier "target" for mistreatment than older colleagues and thus experience mistreatment at greater frequency.

Limitations

We note that there are several limitations to this study. Due to the cross-sectional design of our survey, we cannot draw any causal relationships between outcome (patient mistreatment) and predictors (e.g., type of professions, units or department, personal characteristics, and stressors). A second limitation is that the study was conducted at a single institution, thus limiting the generalizability of the results. As with all surveys, we cannot rule out response bias. Due to the psychologically sensitive nature of the study, we aimed to reduce non-response bias by making the study anonymous to reduce the fear of disclosing personal distress. However, the tradeoff of this approach is that we cannot directly compare responders and non-responders in a post-hoc analysis. This study measured stress from mistreatment by patients but did not separately measure mistreatment from visitors or family members accompanying the patient. This represents an opportunity for further study, and caution must be exercised in applying these findings to visitors accompanying patients. Lastly, it is important to note that this study reports on the differences in perceived stress resulting from mistreatment by patients but does not objectively evaluate the incidence or frequency of mistreatment. Therefore, this study does not capture who is more likely to be mistreated, but rather who is more likely to experience stress from the mistreatment.

Recommendations

The significance of organizational factors in the role of mistreatment by patients on clinical experiences creates an organizational obligation for system-level interventions. Healthcare organizations should provide interventions to help prevent clinician mistreatment by patients in the workplace and train healthcare providers to confidently handle these events. This may be particularly salient for nurses, clinicians who work in the ER and Ambulatory and Outpatient clinics, and gender and sexual minorities. Building a culture of mutual respect is important for all healthcare stakeholders, including patients, providers, and the organization itself. Policies and expectations exist regarding healthcare provider behavior, service, and interaction with patients. However, behavioral expectations of patients and visitors must also be clarified and respected within the healthcare setting. In some scenarios, violent or aggressive behavior from patients is unavoidable. In situations where the patient is experiencing psychosis or is under the influence of certain drugs or substances, these behaviors are likely to occur and may not be preventable. Nevertheless, this does not make these events more easily manageable for clinicians. Thus, organizations must provide support for workers who experience mistreatment, violence, or aggression.

It is critical to have a heightened awareness for the potential mistreatment of clinicians by patients. For patients and visitors who display incivility, hostility, or aggression due to their own frustration or unwillingness to manage their own behavior, organizations need policies in place to mitigate, manage, and reduce such interactions. Mahoney and colleagues (2022) provide an example of a successful multi-modal curriculum that prepares healthcare workers for mistreatment by patients which includes didactics, simulation videos, and role-play scenarios.[42] Of utmost importance, healthcare organizations should provide robust infrastructure and processes in the workplace to not only address mistreatment, but to support their staff who experience this type of violence. The American Nurses Association (ANA) and Occupational Safety and Health Administration (OSHA) provide voluntary guidelines to implement workplace violence prevention programs.[43,44]

At the policy level, some states have legislated that healthcare organizations develop a program to address mistreatment of clinicians by patients, while many states have advanced laws that amend existing statutes for assaults of first responders by adding healthcare professionals and/or increasing the penalty associated with such behavior. Alabama is one such state that increased the penalty to felony for assault of nurses and other health care workers in Alabama Law Code: 13A-6-21.[45] The

existence of these laws is a positive step but does not absolve the organization of also addressing the issue internally.

In summary, clinician mistreatment by patients is an important component of the patient experience. Clinicians experiencing stress due to mistreatment by patients are more likely to have higher overall distress and to feel a lower sense of perceived organizational support. This may reduce their interest in remaining in the organization or the workforce altogether and reduces the organization's ability to provide high quality clinical care and service to its patients. While the experience of the patient is of critical importance, it cannot come at the expense of the well-being of the healthcare worker.

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Appendix A. Survey constructs and items

Construct	Items	Response options	Cronbach's alpha
Well-Being Index (WBI)			0.747
	Have you felt burned out from your work?	0=No; 1=Yes	
	Have you worried that your work is hardening you emotionally?	0=No; 1=Yes	
	Have you often been bothered by feeling down, depressed, or hopeless?	0=No; 1=Yes	
	Have you fallen asleep while sitting inactive in public places?	0=No; 1=Yes	
	Have you been bothered by emotional problems (such as feeling anxious, depressed, or irritable)?	0=No; 1=Yes	
	Has your physical health interfered with your ability to do your daily work at home and/or away from home?	0=No; 1=Yes	
	The work I do is meaningful to me.	1=Agree or Strongly agree; 0=Neutral; -1=Disagree or Strongly disagree	
	My work schedule leaves me enough time for my personal/family life.	1=Agree or Strongly agree; 0=Neutral; -1=Disagree or Strongly disagree	
Perceived Organizational Support			0.896
	My institution values my contribution and extra efforts.	1=Strongly disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly agree	
	My institution cares about my well-being and satisfaction.	1=Strongly disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly agree	
	My institution shows very little concern for me.	1=Strongly disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly agree	
Connor-Davidson Resilience (CD-RISC)			0.713
	I am able to adapt to change.	0= Not true at all; 1=Rarely true; 2=Sometimes true; 3=Often true; 4=True Nearly all of the time	
	I tend to bounce back after illness or hardship.	0= Not true at all; 1=Rarely true; 2=Sometimes true; 3=Often true; 4=True Nearly all of the time	

What have been most concerning [general work or clinical] stressors during the last 3 MONTHS? Select all that apply:	1	2	3	4	5	6
1. Mistreatment by patients as a major stressor.	1.000					
2. Heavy workload as a major stressor.	0.125	1.000				
3. Rapid changes in workflows or policies as a major stressor.	0.132	0.097	1.000			
4. Ongoing care of COVID-19 patients as a major stressor.	0.156	0.070	0.182	1.000		
5. Feelings of not giving patients the help or treatment they need as a major	0.145	0.179	0.112	0.107	1.000	
6. Department or unit is under-staffed as a major stressor.	0.170	0.289	0.155	0.148	0.241	1.000