Patient Violence Toward Healthcare Workers in Primary Care: A Quality Improvement Project

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Abstract

In this quality improvement project, a standardized tool was developed to study the types, incidence, and psychological impact of violent incidents perpetrated by patients against staff at a federally qualified community health center. Fifty-nine percent of staff reported experiencing violence by patients in the past year. An average of two violent incidents was reported per week over a four-month period. Verbal violence was the most common form of violence, accounting for 54% of all incidents reported. Intimidating and threatening behavior was reported 27% of the time. Over 60% of staff experienced temporary psychological stress resulting from patient violence. Another 39% experienced continuous stress. This data supports findings in the literature that workplace violence is a prevalent and serious public health issue. Reporting and documentation is the first step in mitigating this clinical issue, and the data can be used to inform future interventions.

Problem Description

The Occupational Safety and Health Administration (OSHA) defines workplace violence as "any act or threat of physical violence, harassment, intimidation, or other threatening disruptive behavior that occurs at the worksite. It ranges from threats and verbal abuse to physical assaults and even homicide" (Occupational Safety and Health Administration). Violence perpetrated by patients against healthcare workers is a growing public health problem. Workplace violence affects worker job performance and satisfaction, retention, mental well-being, and patient care (Lee, 2015; Tonso et al., 2016). Disproportionate incidences of workplace violence occur against healthcare workers compared to all other industries. According to OSHA, there were between 23,540 and 25,630 reports of workplace assaults annually from 2011 to 2013 in the United States; 70 to 74% of these incidences occurred in healthcare and social service settings (OR-OSHA, 2016). Healthcare workers are nearly four times as likely to take time off from work due to violence compared to other types of injury (Phillips, 2016). Additionally, workplace violence costs U.S. hospitals and health systems approximately $2.7 billion in 2016 (Van Den Bos, 2017)

Between 2013 and 2018, 3,160 work-related disability claims from assaults were filed by workers in Oregon. Physical assault towards healthcare workers accounts for 27% of these claims (OR-OSHA, 2016). While physical abuse is the most commonly reported form of workplace violence, other types of aggression, such as verbal abuse, threatening behavior, and harassment, remain underreported (Blando et al., 2013). Nonphysical forms of violence are ubiquitous, persistent, and often ignored in the workplace. Exposure to any abuse by patients has harmful effects on the mental well-being of the healthcare workers (Inoue et al., 2006). Patients are the most common perpetrators of violence against healthcare workers (Sabri, 2015)

This paper will describe the process and findings of a quality improvement project in which a tool was created for documenting and evaluating patient violence towards staff. The project sites include a federally qualified community health center (FQHC) and an immediate care clinic (IC) located in a mid-size city in the western United States. The FQHC provides primary care services to a majority of Medicaid, Medicare, and uninsured patient populations. The IC is a same-day clinic providing urgent medical care located close to the FQHC. There is an overlap in the clinics' patients due to the two clinics' physical proximity. The anecdotal evidence suggests abuse perpetrated by patients toward healthcare workers is occurring almost daily and impacting staff morale; however, there is no reporting system in place to track the prevalence of these incidents. This project aims to develop a mechanism for reporting abuse by patients against healthcare staff, a first step to inform future work to reduce workplace violence.

Available Knowledge

The National Institute of Occupational Safety and Health (NIOSH) and the Oregon Occupational Health Safety Administration (OR-OSHA) guidelines support an integrated organizational approach incorporating workplace violence monitoring tools, staff training, and response policies (OR-OSHA, 2016). Despite these recommendations, standardized mechanisms and tools for reporting patient violence are lacking. A systematic review of sixty-two cross-sectional studies found an insufficient number of validated reporting instruments for workplace violence against healthcare workers (Campbell et al., 2015). Campbell et al. (2015) found most reporting tools studied one specific population, such as nurses or physicians, and lack psychometrics to measure violence's psychological impact. Additionally, few studies evaluated interventions (Campbell et al., 2015). Unvalidated independent reviews and anecdotal reporting support a high prevalence and severe underreporting of incidents (Campbell et al., 2015; Sato et

al., 2013). Without accurate data about the prevalence and contributory factors, the development of effective interventions and policies to decrease the incidents of violence remains stagnant (Geiger-Brown et al., 2007)

Rationale

Both clinic sites did not have mechanisms to document and track violent incidents by patients against staff. As a result, the prevalence rate of aggressive behavior is not known. This project aims to develop a standardized tool to record and measure the prevalence of violent incidents in both clinics. The long-term goal will be to use the data to inform future interventions. The Model for Improvement developed by the Institute for Healthcare Improvement (IHI) was used as the framework for this inquiry. The model was selected for its multidisciplinary foundation grounded in clinical science, systems theory, psychology, and statistics (IHI, n.d.). The IHI model also uses a rapid-cycle testing method, Plan-Do-Study-Act (PDSA), which focuses on identifying a problem and designing measurable improvement plans while testing small-scale interventions over a short period. This framework is influenced by Kurt Lewin's Change Theory, a three-step model of unfreezing, changing, and refreezing to create organizational change. Under this theory, change starts with awareness and letting go of existing behavior, which is hindering improvement (unfreezing phase) followed by implementation of new changes (changing phase), and finally reinforcing and solidifying the changes (refreezing phase) (Manchester et al., 2014). The influences of Lewin's Change Theory are emphasized in using multiple PDSA cycles to refine (unfreezing, changing, and freezing cycles) for continuous quality improvement and scaling up the interventions over time.

Specific Aims

This project aims to develop a context appropriate tool to record and measure the prevalence of violent incidents perpetrated by patients against staff at the FQHC and IC. The reporting instrument will be available to staff at both clinics. Staff experience and feedback will aid in the development and refinement of a permanent reporting tool for clinic staff. In addition, results and data from the submitted reports will be used to inform future interventions to prevent patient violence towards healthcare staff.

Methods

Context

The FQHC is located in an inner-city neighborhood in an urban area, providing primary care services to over 15,000 patients annually. More than 42% of them live below 200% of the federal poverty line. In 2019, over 60% of the patients had Medicaid, Medicare, or were uninsured (Internal Clinic Communications, 2020). The clinic employs 125 staff members, including clinical and administrative staff. In addition to the team members who are physically present in the clinic, most of the Patient Access Specialists (PAS), who answer phones and schedule appointments, work from home. These staff members only interact with the patient by telephone and rarely face-to-face. The IC is a same-day clinic providing urgent care services. The IC is staffed by 15 clinical and administrative personnel and serves a similar patient demographic as the FQHC. Many IC patients are without primary care providers and seek care at the clinic to manage chronic health conditions, while others seek episodic care for urgent health needs.

Both clinics serve a high percentage of patients with chronic illnesses, mental health problems, and substance abuse challenges. Providers and clinic staff are committed to

maintaining a patient-centered and trauma-informed care culture through the organizations' policies, practices, and procedures. In 2019, the Support Action Team (SAT) was created as a venue for team members to refer and review patients whose behavior impacts their care. SAT is an interdisciplinary team comprised of behavioral health, clinical providers, and support staff who meet to review patient behavior. Patients do not participate in the SAT committee review. Using an equity and trauma-informed perspective, SAT creates individual patient plans to improve care. SAT's interventions are patient-centered and are not designed to address the impact of patient behavior on health care staff. Therefore, trauma-informed interventions are needed to safeguard the well-being of clinic staff. This quality improvement project is supported by both the clinic's SAT team and leadership, committed to developing interventions to improve staff safety and well-being.

Interventions

A standardized reporting tool was developed and distributed to staff to document violent episodes by patients. The tool was created in collaboration with the FQHC's behavioral health staff using examples from the literature and OSHA. The reporting instrument collects information on the demographics of the reporting team member (age, job role, race/ethnicity, and gender), violence type (verbal, physical, or ideological), a brief description of the incident without the inclusion of identifying patient information, any interventions used, and the physical and mental health impacts on clinic staff. For details of the reporting tool, please refer to Appendix A. Before implementing our tool, a pre-intervention survey was distributed to evaluate the perceived need for tracking violence and the frequency of incidents against our healthcare team. In addition, the reporting tool was introduced to the entire team at a clinic all-staff meeting, a provider meeting, and a patient access specialist huddle. Staff members were encouraged to document violent incidents using the tool for four months.

Implementing the Plan-Do-Study-Act (PDSA) model, this improvement project was reviewed at one and four months. Before the rollout of the reporting tool, the pre-intervention survey was distributed to the staff. In addition, a post-intervention survey was distributed to clinic staff at the end of the four months to evaluate the work burden and effectiveness of the reporting tool. The impact of the intervention will be assessed through evaluation of the submitted tool results and completed post-intervention surveys.

Measures

The outcome measure for this project is the number of violent incidents against healthcare staff by patients as self-reported using the provided reporting form. The types of violent incidents, the psychological impact of violence on staff, and the actions taken were also tracked as outcome measures. Data collection occurred over four months using the newly developed tool. The data were analyzed at one month and four months post-intervention. This project's process measure is the number of staff with access to the reporting tool per week and the number of completed forms. A link to the reporting document was made available on the entire clinic's daily schedule. The author monitored this process by checking that the link was sent out daily and quickly accessible by staff. Submitted reports were reviewed for completeness. We tracked the perceived increased work burden of using the tool as a balancing measure. Work burden was monitored with a brief staff survey one month after implementing the intervention and post-intervention. The reporting instrument and processes were modified based on the survey results. The pre-survey also documented the perceived frequency of violence in the clinic. The post-survey measured the usefulness of the reporting tool and staff desire to continue using the instrument.

Data Analysis

This improvement project was implemented over four months between December 2020 and March 2021. The collected data was analyzed at one month, two months, and four months after implementation. The rate of violent incidents was calculated at these intervals and analyzed. The incidence rate was quantitively subcategorized by staff gender, race/ethnicity, job title, violence types, and physical/mental health impact. Patient demographic information was not collected with the reporting tool. The pre-intervention survey and post-intervention survey data were qualitative and therefore analyzed by describing themes to examine perceived issues of work burden and psychological impact.

Ethical Considerations

All staff at both clinics were informed of the project during staff meetings and by email. Participation in the improvement project was voluntary. By submitting reports of violent incidences, the staff gave their approval to participate. The incidents were submitted anonymously with no identifying information of the author. The participating clinical sites gave consent to the project by signing a letter of support. Therefore, no identifiers or characteristics of the patients who have been violent towards staff are documented. This project was submitted to the OHSU Investigational Review Board (Study #00022233) and was deemed not to be research and did not need further review.

Results

Thirty-four staff members returned the pre-survey. Two surveys were not included due to incomplete responses. All the respondents (100%) agreed that it is vital for the clinics to track the incidents of violence towards staff. Fifty-nine percent of the respondents experienced violence by patients in the last year. When asked to estimate the frequency of violence towards

staff by a patient, 44% of respondents reported that they believe it happens daily, while 41% estimate incidents occur weekly.

An email was sent to the entire staff at both clinics in January 2021, one-month post-intervention, to elicit feedback about the reporting tool. Minor changes to the wording language of the instrument were made based on the input. It became more advantageous to wait until two months post-intervention to evaluate data generated by the tool. Thirty-one completed reports of violence were received from the clinics during the first two months of the intervention, from December to January. Four responses were excluded due to incomplete information. Clinic team members from various job categories, including patient access specialists (PAS), clinical providers, nurses, medical assistants, and community health workers, reported experiencing violence by patients. Of the reports received, 44% were from PASs, and 41% were from nurse practitioners.

Female employees, which comprise 65% of the staff, submitted 93% of the reports. Thirty-five percent of respondents identified as white, 19% Asian, 19% Native Americans, 7% mixed race and 7% Black Americans, 3% Latino, and 10% declined to answer. Verbal acts of violence were the most commonly reported (54%), followed by intimidation/threats (27%), physical violence (10%), and ideological violence (10 %). Only one-third of all incidence was reported to clinic management, while 31% did not report the incidents at all. Fifteen percent were reported to clinic security, another 15% referred the patient incident to the SAT committee for review, 2% were reported to the hospital safety department, and another 3% of the incidents were reported to the local police. The majority of staff members reported no physical injury due to violent incidents (86%), while others reported bodily injury but did not seek treatment (14%). Temporary psychological stress was reported in 61% of incidents, while 39% reported

continuous psychological pressure causing the staff member to be reluctant to interact with patients. No team members reported somatic symptoms or inability to perform their job as a result of patient violence. The results demonstrate an average of two violent incidents against clinic staff occurred per week, out of a total of 135 employees. This finding is supported by the pre-test survey in which 44% of clinic staff estimated patient violence occurred daily, and another 41% estimated violent events occurred weekly.

A survey was sent to the entire clinic staff one-month post-intervention to measure the intervention's effectiveness in documenting violence in both clinics and increased work burden in using the reporting tool. The survey included three questions seeking feedback on staff awareness of the reporting tools, barriers to using it, and interest in continuing to use the tool. Ninety percent of respondents were aware of the reporting tool. The majority of respondents (80%) did not cite any barriers to using the instrument, including increased work burden. Forty percent of respondents would like to continue using the tool. Some staff questioned if the tool would lead to significant organizational changes or systemic improvement.

Discussion

Female employees reported over 90% of incidents. Male employees submitted only two reports out of the 30 received. The majority of staff at both clinics identify as female (65%); however, gender distribution alone cannot explain female employees' higher incidence rate. Studies have shown female employees are more impacted by acts of violence than their male colleagues (Chen et al., 2019). In addition, female healthcare workers are more likely to experience verbal violence, whereas male workers experience physical abuse (Magnavita & Heponiemi, 2012). This is consistent with our results, with over 50% of the reported incidents involving verbal confrontation.

Nearly 60% of clinic staff reported experiencing violence by patients. The results demonstrated that healthcare staff was equally as likely not to report violent incidents (30%) as they reported the events to management (33%). Underreporting of violence is well established in the literature (Arnetz et al., 2015; Taylor & Rew, 2011). This phenomenon may be attributed to attitudes that violence is part of the job or perceived lack of available interventions, reporting mechanisms, or management support (Arnetz et al., 2015). Exploration of the low reporting rate should be further investigated in the development of interventions and prevention measures.

Clinic staff reported a diversity of responses to patient violence from not reporting, informing management, calling clinic security, and summoning the city police. The inconsistency in responses may be due to the lack of standardization in clinic policy and staff education about dealing with incidents. Staff training and the development of clinic policies to address patient violence are areas for future work.

Conclusion

In this quality improvement project, a reporting tool captured a high frequency of violence experienced by healthcare staff. These results support the need to develop high-quality and standardized instruments to document this public health problem. A greater understanding of the prevalence, types of violence, and impact on health care staff will inform future interventions to decrease the frequency of incidents and improve staff safety. Development of clinic policy to standardize staff response and reporting of clinic violence is an area of future work. Staff de-escalation training and psychological support for staff impacted by patient violence should also be addressed in future interventions.

References

Arnetz, J. E., Hamblin, L., Ager, J., Luborsky, M., Upfal, M. J., Russell, J., & Essenmacher, L. (2015). Underreporting of workplace violence: comparison of self-report and actual documentation of hospital incidents. *Workplace Health & Safety*, *63*(5), 200-210.

Blando, J. D., O'Hagan, E., Casteel, C., Nocera, M. A., & Peek-Asa, C. (2013). Impact of hospital security programmes and workplace aggression on nurse perceptions of safety [Article]. *Journal of Nursing Management*, *21*(3), 491-498. https://doi.org/10.1111/j.1365-2834.2012.01416.x

Campbell, C. L., Burg, M. A., & Gammonley, D. (2015). Measures for incident reporting of patient violence and aggression towards healthcare providers: A systematic review Review]. *Aggression and Violent Behavior*, *25*, 314-322. https://doi.org/10.1016/j.avb.2015.09.014

Chen, C., Smith, P. M., & Mustard, C. (2019). Gender differences in injuries attributed to workplace violence in Ontario 2002–2015. *Occupational and environmental medicine*, *76*(1), 3-9.

Geiger-Brown, J., Muntaner, C., McPhaul, K., Lipscomb, J., & Trinkoff, A. (2007). Abuse and violence during home care work as predictor of worker depression [Article]. *Home Health Care Services Quarterly*, *26*(1), 59-77. https://doi.org/10.1300/J027v26n01_05

Inoue, M., Tsukano, K., Muraoka, M., Kaneko, F., & Okamura, H. (2006). Psychological impact of verbal abuse and violence by patients on nurses working in psychiatric departments [Article]. *Psychiatry and Clinical Neurosciences*, *60*(1), 29-36. https://doi.org/10.1111/j.1440-1819.2006.01457.x

Internal Clinic Communications. (2020). *Internal Clinic Data*.

Lee, J., Daffern, M., Ogloff, J. R., & Martin, T. (2015). Towards a model for understanding the development of post-traumatic stress and general distress in mental health nurses. *International journal of mental health nursing*, *24*(1), 49-58. https://doi.org/ https://doi-org.liboff.ohsu.edu/10.1111/inm.12097

Magnavita, N., & Heponiemi, T. (2012). Violence towards health care workers in a Public Health Care Facility in Italy: a repeated cross-sectional study. *BMC health services research*, *12*(1), 1-9.

Manchester, J., Gray-Miceli, D. L., Metcalf, J. A., Paolini, C. A., Napier, A. H., Coogle, C. L., & Owens, M. G. (2014). Facilitating Lewin's change model with collaborative evaluation in promoting evidence-based practices of health professionals. *Eval Program Plann*, *47*, 82-90. https://doi.org/10.1016/j.evalprogplan.2014.08.007

Occupational Safety and Health Administration. *Work Place Violence*. Retrieved April 6, 2021, from https://www.osha.gov/workplace-

violence#:~:text=Workplace%20violence%20is%20any%20act,%2C%20clients%2C%20customers%20and%20visitors.

Oregon Occupational Health and Safety Administration (OR-OHSA. (2016). *Workplace violence: Can it happen where you work?* .http://osha.Oregon.gov/OSHAPubs/2857.pdf

Phillips, J. P. (2016). Workplace Violence against Health Care Workers in the United States. *New England Journal of Medicine*, *374*(17), 1661-1669. https://doi.org/10.1056/NEJMra1501998

Sabri, B., St. Vil, N. M., Campbell, J. C., Fitzgerald, S., Kub, J., & Agnew, J. (2015). Racial and Ethnic Differences in Factors Related to Workplace Violence Victimization. *Western Journal of Nursing Research*, *37*(2), 180–196. https://doi.org/ https://doi.org/10.1177/0193945914527177

Sato, K., Wakabayashi, T., Kiyoshi-Teo, H., & Fukahori, H. (2013). Factors associated with nurses' reporting of patients' aggressive behavior: A cross-sectional survey [Article]. *International Journal of Nursing Studies*, *50*(10), 1368-1376. https://doi.org/10.1016/j.ijnurstu.2012.12.011

Taylor, J. L., & Rew, L. (2011). A systematic review of the literature: workplace violence in the emergency department. *Journal of Clinical Nursing*, *20*(7-8), 1072-1085. https://doi.org/https://doi.org/10.1111/j.1365-2702.2010.03342.x

Tonso, M. A., Prematunga, R. K., Norris, S. J., Williams, L., Sands, N., & Elsom, S. J. (2016). Workplace violence in mental health: a Victorian mental health workforce survey. *International journal of mental health nursing*, *25*(5), 444-451.

Van Den Bos, J., Creten, N., Davenport, S., & Roberts, M. (2017). *Cost of community violence to hospitals and health systems.* https://www.aha.org/system/files/2018-01/community-violence-report.pdf

Appendix A: Patient to Staff Violence Reporting Form

Patient to Staff Violence Reporting Form

Workplace violence is defined as "Any act or threat of physical violence, harassment, intimidation, or other threatening disruptive behavior that occurs at the worksite. It ranges from threats and verbal abuse to physical assaults and even homicide" (OSHA)

The information collected is anonymous and confidential.

Date:

Clinic (Primary Care or Immediate Care)**:**

Staff info:

Gender: _____ Age: _____ Race/Ethnicity: _____

Role (PAS, MA, pharmacy, provider, BH, etc.) _____

Type of aggressive behavior:

Verbal _____

Physical _____

Intimidating/threatening_____

Ideological (i.e., hate speech) _____

Brief description of the incident (DO NOT include identifying information):

Actions taken (select all that apply):

_____Incident reported to clinic security

_____Incident reported to hospital safety

_____ incident reported to the city police

_____Incident reported to clinic management

_____Incident submitted for SAT review

_____No action taken

Physical Impact

_____ I experienced NO physical injury as a result of an aggressive incident

_____ I experienced a physical injury but did not seek treatment

_____I experienced physical injury and sought medical treatment

Mental Health Impact

_____ The incident caused some temporary stress

_____ The incident caused me continuous stress. I am reluctant to interact with the patient

_____The incident caused me ongoing stress with somatic symptoms like poor sleep, increase anxiety, and poor appetite. I am unable to provide services or care to the patient.

_____The incident caused me continuous stress. I am unable to provide services or care to ANY patients or carry out my regular job duties.

(Adapted from Sato, K., Wakabayashi, T., Kiyoshi-Teo, H., & Fukahori, H. (2013). Factors associated with nurses' reporting of patients' aggressive behavior: A cross-sectional survey. *International journal of nursing studies*, *50*(10), 1368-1376.)