

# Computer-Based Patient Bias and Misconduct Training Impact on Reports to Incident Learning System

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## Abstract

**Objective:** To assess the effect of computer-based training (CBT) and leadership communication on incident learning system reports pertaining to institutional policy that targets biased, prejudiced, and racist behaviors of patients and visitors toward health care employees.

**Patients and Methods:** Mayo Clinic developed a CBT module and comprehensive communication strategy to educate staff on the Patient and Visitor Conduct Policy. Additional goals were to demonstrate leadership endorsement and support of the policy, teach how to report an incident, and facilitate how policy enforcement might occur. Using descriptive statistics, we compared the reporting data before and after the intervention.

**Results:** Participants were 13,980 employees in 68 clinics and 18 hospitals in the US Midwest. Bias and misconduct incidents entered in the incident reporting system increased 312% (n=140 incidents; pre-intervention, n=34) in the quarter (ie, 3 months) immediately after intervention. The number of incidents in the next quarter stayed increased (234%; n=114) compared with the preintervention number. Secondary debriefing with employees showed the value of the education and the importance of leadership support at the highest level to facilitate comfort in policy enforcement.

**Conclusion:** Institutional policy that targets biased, prejudiced, and racist behaviors of patients toward employees in a health care setting can be augmented with employee education and leadership support to facilitate change. The CBT, paired with a robust communication plan and active leadership endorsement and engagement, resulted in increased reporting of biased, prejudiced, and racist behaviors of patients.

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In the diverse US health care workforce, 36% of practicing physicians are women and 44% are not white.<sup>1</sup> Unfortunately, health care workers frequently encounter biased, prejudiced, and racist patients.<sup>2,3</sup> In a recent survey,<sup>4</sup> about 60% of respondent physicians had experienced biased patient behavior based on the physician's sex, sexual orientation, race, religion, and other factors. In a recent qualitative study,<sup>5</sup> 50 hospitalist physicians, residents, and medical students (women, 44%; not white, 48%) reported inappropriate patient behaviors ranging from belittling comments and jokes to sexist, homophobic, and racist remarks to outright refusal of care based on the clinician's characteristics. The physicians who were the target of these inappropriate behaviors reported

emotional burden, withdrawal from clinical roles, decreased learning, and acquiescence. Bystander witnesses reported moral distress and uncertainty about how to respond to the scenarios.

The interviewees cited a lack of skill in confronting biased patients and insufficient institutional support (eg, leadership and policies) as factors that prevent them from responding. They expressed a need for development and implementation of institutional policies and training on dealing with patients who exhibit inappropriate biased behaviors. These needs were amplified in an associated editorial<sup>6</sup> that called for codes of professional ethics that recognize several factors: the dignity of health care workers; institutional policies and practices for realization of a culture

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of equity; direct guidance for health care clinicians on how to respond to biased patients; bystander antidiscrimination training for all health care professionals, staff, and trainees; and leader role modeling.

Our organization, Mayo Clinic, and its employees have had similar experiences. In response, Mayo Clinic developed a Patient and Visitor Conduct Policy in 2017. A guiding principle of the policy was the need to balance the duties of providing excellent culturally appropriate patient care and a safe and supportive workplace. The policy addressed the components of: (1) requests for particular care team members with or without specific attributes unrelated to professional qualification, such as race, religion, and other personal attributes; and (2) other misconduct related or unrelated to racist or prejudiced behaviors. In 2019, a 5-step process was developed for responding to these scenarios.<sup>7</sup>

To increase knowledge of and adherence to the policy and implementation of the response process, Mayo Clinic implemented a strategy consisting of a thorough communication plan and computer-based training (CBT). The communication efforts relayed the importance of the policy and process while the CBT provided rationale for each, with instructions for how to report incidents of patient bias, prejudice, racism, and other misconduct through the preexisting institutional incident learning system. We report preliminary descriptive results of this communication strategy and the CBT on events that had been entered in the institutional incidence reporting system.

## PATIENTS AND METHODS

The Mayo Clinic Institutional Review Board declared this study exempt from review in accordance with the Code of Federal Regulations, 45 CFR 46.102.

Participants were allied health staff employed at a large health system comprising 68 clinics and 18 hospitals in the US Midwest. Employees had various educational backgrounds and professions and included (but were not limited to) nursing staff, environmental services staff, security employees, door attendants, and business professionals. All had participated in safety and security training, including reporting and awareness

of the institutional learning system during orientation.

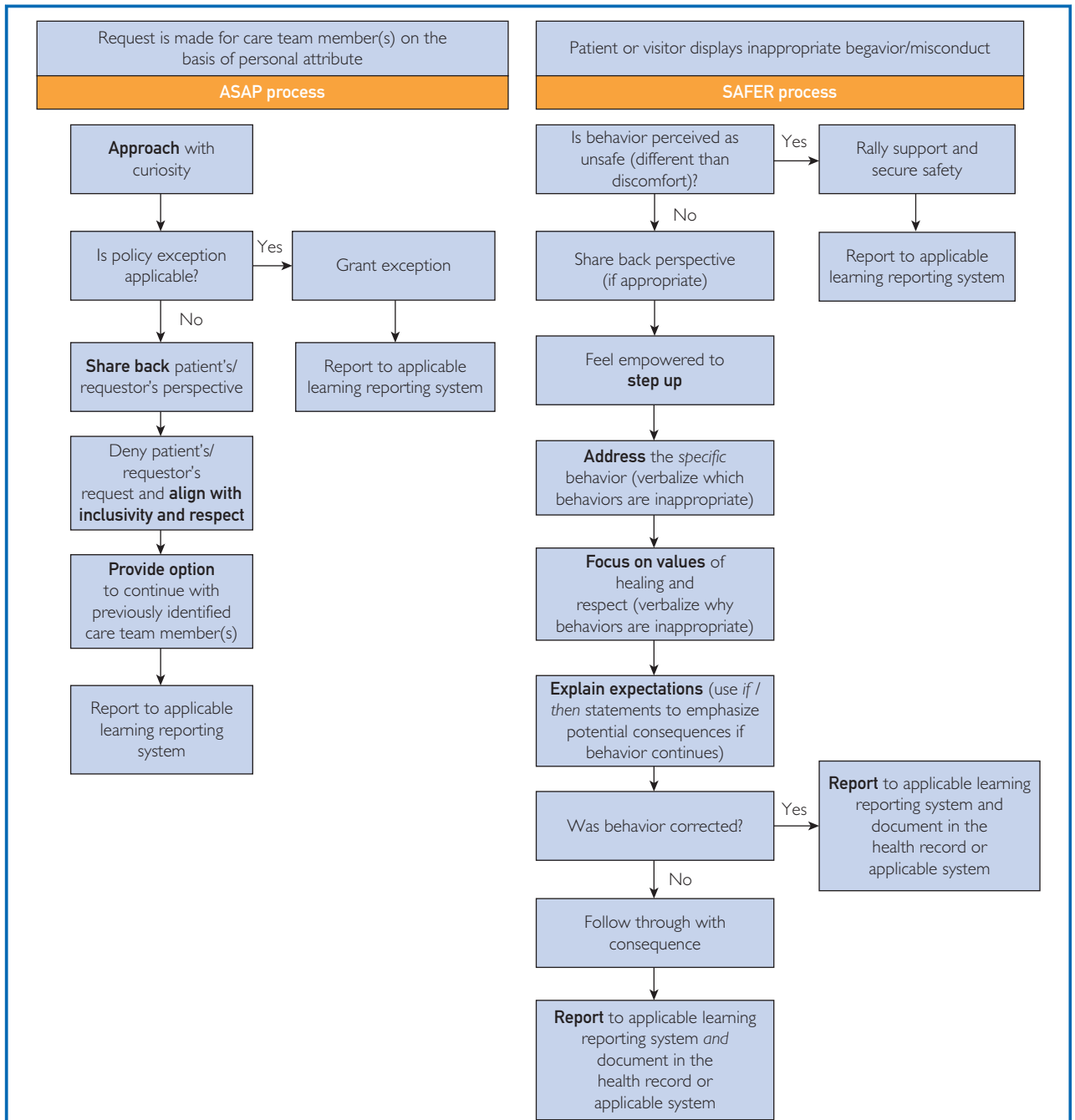
## Materials

Instructional materials consisted of CBT education on Mayo Clinic's Patient and Visitor Conduct Policy and the associated procedure to report incidents of biased requests and any other patient or visitor misconduct (Figure 1). Electronic presentations were developed to assist high-level leaders in facilitating discussions with their staff who serve in a managerial role with employees who directly report to them. Scripted emails, related articles, and additional tools were also made available to learners, which explained the rationale and encouraged adherence to the policy and procedures. Through this comprehensive communication strategy, employees were instructed to report incidents of bias and misconduct in the Patient and Visitor Conduct incident learning system reporting tool.

## Procedure

Members of Mayo Clinic Quality facilitated discussions at administrative and frontline leadership meetings to enhance awareness of the Patient and Visitor Conduct Policy and to share instructions for reporting incidents of misconduct through the incident learning system. Leaders were asked to distribute these materials to the staff who directly report to them. Each leader also received an email from regional chief medical officers and chief administrative officers, who encouraged the leader to model behaviors outlined in the policy and to exemplify reporting of inappropriate behavior through the incident learning system.

All allied health employees were assigned a CBT module in the institution's learning management system as part of standard compliance and safety training. Employees completed the module during regularly scheduled work hours. The module took 10 to 15 minutes to complete. Persons completing the module were required to pass a postlesson examination to receive credit. The CBT consisted of a narrated overview of prohibited patient and visitor behaviors (ie, derogatory, discriminatory, and verbally or physically abusive behaviors, including but not limited to disparaging or disrespectful comments,



**FIGURE 1.** Algorithm for response to inappropriate patient or visitor behavior or request for a specific clinician. Bold indicates the main steps of the algorithm. ASAP, approach with curiosity, share back their concerns, align with inclusivity and respect, provide option; SAFER, step up, address the specific behavior, focus on institution values, explain expectations and boundaries, and report all misconduct and bias. Modified from Warsame and Hayes<sup>7</sup>; used with permission.

volatile verbal and physical behaviors that may make others feel threatened, and inappropriate sexual comments and gestures), and guidance

on how to respond to and report these behaviors (Figure 1). Additionally, the module included the specific process of reporting

and an explanation of how reports would be reviewed. (Affected employees or supervisors, or both, report events using a web-based form. Reports are reviewed by a multidisciplinary team, which advises on a response to the behaviors.) Finally, sentiments of support and a call to action from the organization to respond to and report instances of inappropriate behavior were expressed in the CBT. Overall, reporting and responding to inappropriate behavior were framed as important elements to support an environment of mutual respect and inclusivity.

Baseline measures consisted of extracted data from the Patient and Visitor Conduct incident learning system, which had been in existence for several years before the communication strategy and implementation of required CBT. Data collected from the Patient and Visitor Conduct tool were cross-referenced with a complementary Mayo Clinic security report. On the basis of policy, every security report was mandated to have a corresponding report in the Patient and Visitor Conduct tool. However, every incident did not require a security report. The discrepancy between these 2 measures showed that an opportunity and need existed to capture bias and misconduct incidents and served as the improvement gap addressed with the communication strategy and CBT.

The number of reported incidents at baseline was compared with the number in the quarter when the intervention was

implemented and the number for the first quarter after its implementation. To ensure accurate reporting in the incident reporting tool, we cross-referenced the misconduct incidents with the security reports of a defined region of the health system with a smaller employee sample before and after the intervention. Descriptive statistics were used.

Finally, we conducted facilitated discussions with leaders and frontline staff to gather feedback regarding the intervention.

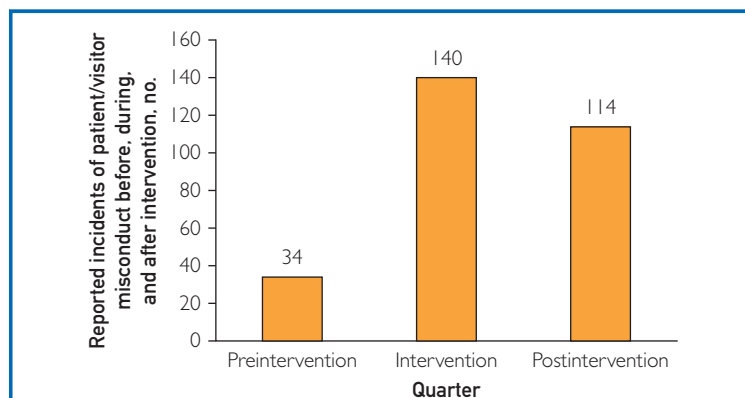
## RESULTS

Of the 13,980 employees assigned to CBT, a total of 10,558 (76%) completed the module and passed the postmodule examination. Bias and misconduct incidents entered in the incident learning system were increased in both the quarter of intervention implementation and the subsequent quarter.

In the quarter immediately preceding the intervention, 34 incidents were reported. In contrast, during the intervention quarter, 140 incidents were reported—a 312% increase. In the quarter following the intervention (Figure 2), 114 incidents were reported—a 234% increase compared with the quarter before implementation but a 19% decrease compared with the quarter of implementation.

A secondary analysis of the reported incidents was used to track how staff responded to patient misconduct. On follow-up with employees and leaders who reported incidents, many reported a lack of necessary skills and the confidence to respond to harassment, discrimination, and other forms of patient misconduct.

Facilitated discussions with frontline employees and leaders provided feedback on the intervention. Negative feedback included several employees and leaders who shared difficulty in their recall of CBT details of their completed training. Leadership messaging (for frontline employees) and facilitated discussion (for leaders) were the elements reported as most positively influencing their interest in the Patient and Visitor Conduct Policy and resultant reporting behavior. Employees and leaders identified leadership messaging, leadership engagement, and facilitated discussion about the policy as key elements of the intervention.



**FIGURE 2.** Patient or visitor misconduct incidents before, during, and after implementation of computer-based training about the patient and visitor conduct policy.

## DISCUSSION

In this before-and-after study, reports of patient and visitor bias and misconduct submitted to an institutional incident learning system increased more than 300% ( $n=34$  vs  $n=140$  reports) during the quarter of training program implementation of a communication strategy and CBT about patient and visitor bias and misconduct. Furthermore, during the quarter after implementation, the number of reports stayed substantially increased compared with the quarter before the intervention but decreased by nearly 20% ( $n=114$  vs  $n=140$ ) compared with the intervention quarter. To our knowledge, these are novel findings.

In alignment with published recommendations<sup>5-7</sup> and to help ensure a respectful environment for employees, our institution created and implemented a Patient and Visitor Conduct Policy. Nonetheless, before the CBT program intervention, few incidents of patient bias, prejudice, and racism were reported through our incident learning system. Unclear at the time was whether this observation was due to a low prevalence of patients demonstrating inappropriate behaviors or whether these behaviors were occurring and were unaddressed and unreported. Anecdotal experience suggested the latter. Hence, we created and implemented the CBT intervention.

The results of our before-and-after study indicate that CBT is a viable option for providing awareness and rationale for a new policy about patient and visitor bias and misconduct. Our results indicate that CBT can result in increased employee reports of incidents of patient and visitor bias and of misconduct. Furthermore, CBT is cost-effective; offers a flexible, self-paced, learner-controlled option for participants; and renders a tracking and analytic measure of support for the team responsible for documenting the findings.

Beckman and Cook<sup>8</sup> and Kirkpatrick<sup>9</sup> describe a 4-level hierarchy of learning evaluation. This stratified hierarchy is from lowest rigor to highest rigor: level 1 reaction (eg, learner satisfaction), level 2 learning (eg, knowledge and skills), level 3 behavior, and level 4 results. Our CBT program resulted in important outcomes at levels 1 through 3.

Participants regarded our CBT program favorably and relevant to their work environment (level 1). The examination requirement of the CBT program measured knowledge (level 2). The substantial increase in employee reporting of patient and visitor bias and misconduct during and after the CBT program implementation indicates program-changed behaviors (level 3). Whether the CBT intervention affected level 4 results, such as employee satisfaction, productivity, and retention, could not be determined.

Other key success factors of our program were a thorough communication plan describing the rationale for the Patient and Visitor Conduct Policy and the reporting process, coupled with visible and active leadership endorsement, encouragement, and engagement. Feedback from the participants revealed that leadership buy-in was crucial for success of the CBT initiative. This involvement relays genuine commitment to the endeavor and affects the design of the communication and training plan. Scripting provided to leaders to share with their subordinates saved the leaders' time and ensured that consistent messaging was distributed across the organization.

Our program resulted in an immediate increase in employee reporting of patient and visitor bias and misconduct during the quarter of implementation. However, the number of reports decreased by nearly 20% ( $n=114$  vs  $n=140$ ) during the quarter after implementation. This observation indicates that the learning and associated behaviors (ie, reporting incidents) may not be durable and that follow-up training and reinforcement are necessary. Long-term follow-up plans are in place to monitor ongoing employee reporting behaviors.

Of note, a secondary analysis of the reported incidents showed that many staff did not have the necessary skills and confidence to respond to harassment, discrimination, and other misconduct—data consistent with the published literature.<sup>5</sup> Mayo Clinic has now developed a Patient and Visitor Conduct Policy support unit led by a physician and an administrative partner. A facilitator with expertise in interpersonal communication and a background in de-escalation and

behavioral psychology has joined the unit to assist with the development of a training plan for staff. Overall, a major goal of the Patient and Visitor Conduct Policy is to create robust processes and resources to support staff in their response to bias, racism, and other patient and visitor misconduct.

Our study has several limitations. First, with a before-and-after study, confounding is possible. Second, the details and severity of the incidents are beyond the scope of this study, as are the questions of: (1) whether each represented a unique incident or person or the same incident reported by multiple persons and (2) whether 1 person demonstrated multiple episodes of inappropriate behavior over time. Third, we do not know the number of incidents that are unreported. Fourth, attention bias and availability bias may have influenced the frequency of reports immediately around the implementation. Conversely, negative attention bias and negative availability bias may have influenced staff or may influence them in the future, in the absence of ongoing education on the importance of incident submission to the incident learning system. Fifth, our results may not be generalizable to other health care systems with different employee and patient demographic characteristics.

## CONCLUSION

Patient and visitor misconduct occurs in health care facilities. Policy and process for the incidents can be relayed through CBT, which substantially increases employee reporting of visitor and patient misconduct, especially when paired with a robust communication plan and active leadership endorsement and engagement. Further efforts are needed to understand whether the effects of the program are durable, to optimize ongoing employee education, and to develop employee education programs to increase skills and confidence in managing patient and visitor misconduct.

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**Abbreviations and Acronyms:** **ASAP**, approach with curiosity, share back their concerns, align with inclusivity and respect, provide option; **CBT**, computer-based training; **SAFER**, step up, address the specific behavior, focus on institution values, explain expectations and boundaries, report all misconduct and bias

**Potential Competing Interests:** The authors report no competing interests.

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