PubMed database search results
Creating psychological safety in healthcare settings
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1. J Patient Saf. 2015 Mar;11(1):60-6. doi: 10.1097/PTS.0000000000000082.

Psychological safety and error reporting within Veterans Health Administration hospitals.

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OBJECTIVE: In psychologically safe workplaces, employees feel comfortable taking interpersonal risks, such as pointing out errors. Previous research suggested that psychologically safe climate optimizes organizational outcomes. We evaluated psychological safety levels in Veterans Health Administration (VHA) hospitals and assessed their relationship to employee willingness of reporting medical errors.
METHODS: We conducted an ANOVA on psychological safety scores from a VHA employees census survey (n = 185,879), assessing variability of means across racial and supervisory levels. We examined organizational climate assessment interviews (n = 374) evaluating how many employees asserted willingness to report errors (or not) and their stated reasons. Finally, based on survey data, we identified 2 (psychologically safe versus unsafe) hospitals and compared their number of employees who would be willing/unwilling to report an error.
RESULTS: Psychological safety increased with supervisory level ($P < 0.001$, $\eta = 0.03$) and was not meaningfully related to race ($P < 0.001$, $\eta = 0.003$). Twelve percent of employees would not report an error; retaliation fear was the most commonly mentioned deterrent. Furthermore, employees at the psychologically unsafe hospital (71% would report, 13% would not) were less willing to report an error than at the psychologically safe hospital (91% would, 0% would not).
CONCLUSIONS: A substantial minority would not report an error and were willing to admit so in a private interview setting. Their stated reasons as well as higher psychological safety means for supervisory employees both suggest power as an important determinant. Intentions to report were associated with psychological safety, strongly suggesting this climate aspect as instrumental to improving patient safety and reducing costs.

DOI: 10.1097/PTS.0000000000000082
PMID: 24583957 [Indexed for MEDLINE]

2. J Health Organ Manag. 2014;28(6):754-76. doi: 10.1108/jhom-12-2012-0241.

Communication and psychological safety in veterans health administration work

environments.

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PURPOSE: The purpose of this paper is to explore employee perceptions of communication in psychologically safe and unsafe clinical care environments.
DESIGN/METHODOLOGY/APPROACH: Clinical providers at the USA Veterans Health Administration were interviewed as part of planning organizational interventions. They discussed strengths, weaknesses, and desired changes in their workplaces. A subset of respondents also discussed workplace psychological safety (i.e. employee perceptions of being able to speak up or report errors without retaliation or ostracism--Edmondson, 1999). Two trained coders analysed the interview data using a grounded theory-based method. They excerpted passages that discussed job-related communication and summarized specific themes. Subsequent analyses compared frequencies of themes across workgroups defined as having psychologically safe vs unsafe climate based upon an independently administered employee survey.
FINDINGS: Perceptions of work-related communication differed across clinical provider groups with high vs low psychological safety. The differences in frequencies of communication-related themes across the compared groups matched the expected pattern of problem-laden communication characterizing psychologically unsafe workplaces.
ORIGINALITY/VALUE: Previous research implied the existence of a connection between communication and psychological safety whereas this study offers substantive evidence of it. The paper summarized the differences in perceptions of communication in high vs low psychological safety environments drawing from qualitative data that reflected clinical providers' direct experience on the job. The paper also illustrated the conclusions with multiple specific examples. The findings are informative to health care providers seeking to improve communication within care delivery teams.

DOI: 10.1108/jhom-12-2012-0241
PMID: 25420355 [Indexed for MEDLINE]

3. J Nurs Care Qual. 2018 Jan/Mar;33(1):53-60. doi: 10.1097/NCQ.0000000000000265.

Relationship Between Psychological Safety and Reporting Nonadherence to a Safety Checklist.

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Patient safety checklists are ubiquitous in health care. Nurses bear significant responsibility for ensuring checklist adherence. To report nonadherence to a checklist and stop an unsafe procedure, a workplace climate of psychological safety is needed. Thus, an analysis of organizational data was conducted to examine the relationship between psychological safety and reports of nonadherence to the central line bundle checklist. Results showed varied perceptions of psychological safety but no relationship with nonadherence. Considerations for this finding and assessing psychological safety are provided.

DOI: 10.1097/NCQ.0000000000000265
PMID: 28505056 [Indexed for MEDLINE]

4. BMC Health Serv Res. 2019 Mar 28;19(1):199. doi: 10.1186/s12913-019-4014-4.

"I just have to take it" - patient safety in acute care: perspectives and experiences of patients with chronic kidney disease.

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BACKGROUND: Frequent hospitalizations and dependency on technology and providers place individuals with chronic kidney disease (CKD) at high risk for multiple safety events. Threats to their safety may be physical, emotional, or psychological. This study sought to explore patient safety from the perspectives and experiences of patients with CKD in acute care settings, and to describe willingness to report incidents utilizing an existing safety reporting system.
METHODS: This study was conducted using a qualitative interpretive descriptive approach. Face to face interviews were conducted with 30 participants at their bedside during their current hospital admission. The majority of the participants were 50 years or older, of which 75% had a confirmed diagnosis of end stage renal disease with the remainder at stages 3 or 4 of CKD. Eighty percent of the participants were either on hemo- or peritoneal dialysis.
RESULTS: Participants expected to receive safe care, to be taken care of, and to be cared for. Safety threats included: sharing a room with patients who were on precautions; lack of cleanliness; and roommates perceived to be threatening. The

concepts of being taken care of and being cared for constituted the safety threats identified within the interpersonal environment. Participants felt taken care of when their physical needs are met and cared for when their psychological and emotional needs are met. There was a general lack of awareness of the presence of a safety reporting system that was to be accessible to patients and families by telephone. There was also an overall unwillingness to report perceived safety incidents, although participants did distinguish between speaking up and reporting.
CONCLUSIONS: A key finding was the unwillingness to report incidents using the safety reporting system. Fear of reprisals was the most significant reporting impediment expressed. Actively inviting patients to speak up may be more effective when combined with a psychologically safe environment in order to encourage the involvement of patients in patient safety. System-wide organizational changes may be necessary to mitigate emotional and physical harm for this client population.

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PMID: 30922299 [Indexed for MEDLINE]

Conflict of interest statement: ETHICS APPROVAL AND CONSENT TO PARTICIPATE: Ethics approval was obtained from the University of Saskatchewan Behavioural Ethics Board (17–300). Written and informed consent was obtained from all participants prior to being interviewed. CONSENT FOR PUBLICATION: N/A COMPETING INTERESTS: The authors declare that they have no competing interests.
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5. Int J Qual Health Care. 2020 Jun 4;32(4):240-250. doi: 10.1093/intqhc/mzaa025.

A systematic review of factors that enable psychological safety in healthcare teams.

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PURPOSE: The current systematic review will identify enablers of psychological safety within the literature in order to produce a comprehensive list of factors that enable psychological safety specific to healthcare teams.
DATA SOURCES: A keyword search strategy was developed and used to search the following electronic databases PsycINFO, ABI/INFORM, Academic search complete and PubMed and grey literature databases OpenGrey, OCLC WorldCAT and Espace.
STUDY SELECTION: Peer-reviewed studies relevant to enablers of psychological safety in healthcare setting that were published between 1999 and 2019 were

eligible for inclusion. Covidence, an online specialized systematic review website, was used to screen records. Data extraction, quality appraisal and narrative synthesis were conducted on identified papers.
DATA EXTRACTION: Thirty-six relevant studies were identified for full review and data extraction. A data extraction template was developed and included sections for the study methodology and the specific enablers identified within each study.
RESULTS OF DATA SYNTHESIS: Identified studies were reviewed using a narrative synthesis. Within the 36 articles reviewed, 13 enablers from across organizational, team and individual levels were identified. These enablers were grouped according to five broader themes: priority for patient safety, improvement or learning orientation, support, familiarity with colleagues, status, hierarchy and inclusiveness and individual differences.
CONCLUSION: This systematic review of psychological safety literature identifies a list of enablers of psychological safety within healthcare teams. This list can be used as a first step in developing observational measures and interventions to improve psychological safety in healthcare teams.

DOI: 10.1093/intqhc/mzaa025
PMID: 32232323

6. BMJ Qual Saf. 2019 Jan;28(1):39-48. doi: 10.1136/bmjqs-2017-007163. Epub 2018 Jun 28.

Speaking up about patient safety concerns: the influence of safety management approaches and climate on nurses' willingness to speak up.

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BACKGROUND: Speaking up is important for patient safety, but healthcare professionals often hesitate to voice their concerns. Direct supervisors have an important role in influencing speaking up. However, good insight into the relationship between managers' behaviour and employees' perceptions about whether speaking up is safe and worthwhile is still lacking.
AIM: To explore the relationships between control-based and commitment-based safety management, climate for safety, psychological safety and nurses'

willingness to speak up.
METHODS: We conducted a cross-sectional survey study, resulting in a sample of 980 nurses and 93 nurse managers working in Dutch clinical hospital wards. To test our hypotheses, hierarchical regression analyses (at ward level) and multilevel regression analyses were conducted.
RESULTS: Significantly positive associations were found between nurses' perceptions of control-based safety management and climate for safety (β=0.74; p<0.001), and between the perceived levels of commitment-based management and team psychological safety (β=0.36; p<0.01). Furthermore, team psychological safety is found to be positively related to nurses' speaking up attitudes (B=0.24; t=2.04; p<0.05). The relationship between nurse-rated commitment-based safety management and nurses' willingness to speak up is fully mediated by team psychological safety.
CONCLUSION: Results provide initial support that nurses who perceive higher levels of commitment-based safety management feel safer to take interpersonal risks and are more willing to speak up about patient safety concerns. Furthermore, nurses' perceptions of control-based safety management are found to be positively related to a climate for safety, although no association was found with speaking up. Both control-based and commitment-based management approaches seem to be relevant for managing patient safety, but when it comes to encouraging speaking up, a commitment-based safety management approach seems to be most valuable.

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Conflict of interest statement: Competing interests: None declared.

7. Int J Qual Health Care. 2018 Nov 1;30(9):701-707. doi: 10.1093/intqhc/mzy089.

Speaking up behaviors and safety climate in an Austrian university hospital.

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OBJECTIVE: To analyze speaking up behavior and safety climate with a validated questionnaire for the first time in an Austrian university hospital.
DESIGN: Survey amongst healthcare workers (HCW). Data were analyzed using descriptive statistics, Cronbach's alpha was calculated as a measure of internal consistencies of scales. Analysis of variance and t-tests were used.
SETTING: The survey was conducted in 2017.
PARTICIPANTS: About 2.149 HCW from three departments were asked to participate.
INTERVENTION: To measure speaking up behavior and safety climate.
MAIN OUTCOME MEASURE: To explore psychological safety, encouraging environment and resignation towards speaking up.
RESULTS: About 859 evaluable questionnaires were returned (response rate: 40%). More than 50% of responders perceived specific concerns about patient safety within the last 4 weeks and observed a potential error or noticed rule violations. For the different items, between 16% and 42% of HCW reported that they remained silent though concerns for safety. In contrast, between 96% and 98% answered that they did speak up in certain situations. The psychological safety for speaking up was lower for HCW with a managerial function ($P < 0.001$). HCW with managerial functions perceived the environment as less encouraging to speak up ($P < 0.05$) than HCW without managerial function.
CONCLUSIONS: We identified speaking up behaviors for the first time in an Austrian university hospital. Only moderately frequent concerns were in conflict with frequent speaking up behaviors. These results clearly show that a paradigm shift is needed to increase speaking up culture.

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PMID: 29701770 [Indexed for MEDLINE]

8. PLoS One. 2019 Sep 12;14(9):e0222461. doi: 10.1371/journal.pone.0222461. eCollection 2019.

Speaking up culture of medical students within an academic teaching hospital: Need of faculty working in patient safety.

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BACKGROUND: Speaking up behavior is a manifestation the culture of safety in an organization; however, withholding voice is commonly observed. Within one academic teaching hospital, it was the aim to assess students' speaking up behaviors and perceived culture in order to stimulation of the academic development in terms of patient safety.
METHODS: Survey amongst medical students using a validated questionnaire. Data were analysed using descriptive statistics.
RESULTS: 326 individuals completed the questionnaire (response rate 24%). 37% of responders were in their 5th- 6th clinical term, 32% were in their 7th-8th term and 31% were in the 9th-12th term. 69% of students had a specific safety concern in the past four weeks, 48% had observed an error and 68% noticed the violation of a patient safety rule. Though students perceived specific patient safety concerns, 56% did not speak up in a critical situation. All predefined barriers seemed to play an important role in inhibiting students' voicing concerns. The scores on the psychological safety scale were overall moderately favourable. Students felt little encouraged by colleagues and, in particular, by supervisors to speak up.
CONCLUSION: Speaking up behaviour of students was assessed for the first time in an Austrian academic teaching hospital. The higher the term the more frequent students reported perceived patient safety concerns or rule violations and withholding voice. These results suggest the need to adapt the curriculum concept of the faculty in order to address patient safety as a relevant topic.

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PMID: 31514203 [Indexed for MEDLINE]

Conflict of interest statement: The authors have declared that no competing interests exist.

9. J Healthc Risk Manag. 2019 Jul;39(1):19-27. doi: 10.1002/jhrm.21360. Epub 2019 Apr 12.

Improving safety through speaking up: An ethical and financial imperative.

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BACKGROUND: Fostering a culture that empowers staff to speak up when concerned about the quality or safety of patient care is both an ethically1 and

economically2 responsible endeavor. The Michigan Health & Hospital Association (MHA) Keystone Center has implemented the Speak-Up! Award program that acknowledges frontline health care staff for voicing their concerns and making care safer. The objective of this effort was to advance patient safety in Keystone Center member organizations through widespread, measurable culture improvement. After extensive data collection and analysis, there was a discernable improvement in culture survey results across a 2-year period coinciding with the launch and sustainment of the award program. Furthermore, in an effort to demonstrate the power of speaking up among staff, the Keystone Center applied a cost-savings framework to the types of harm avoided. Results from the cost-savings analysis suggest that each instance of speaking up by staff saves patients, families, and health care organizations an average of more than $13,000.

METHODS: Keystone Center Speak-Up! Award nominations were submitted through an electronic form that collects open, closed, and Likert-type question responses, producing a data array on type and severity of harm prevented, as well as the difficulty and magnitude of the decision to speak up. All data were then coded by harm type and subsequently applied to a tailored version of the cost-savings estimation framework used in the Great Lakes Partnership for Patients Hospital Improvement and Innovation Network. Safety culture was measured through the use of a survey instrument called the Safety, Communication, Operational Reliability, and Engagement (SCORE) instrument.

RESULTS: The Keystone Center Speak-Up! Award program received 416 nominations across the 2-year study period, of which 62% (n = 258) were coded as a specific harm type. Adverse drug events (n = 153), imaging errors (n = 42), and specimen errors (n = 27) were the most common harm types prevented by speaking up. After applying the cost-savings framework to these data, it is estimated that for every instance of speaking up, approximately $13,000 in total expenses were avoided, which is in line with the findings from a report on the economic impact of medical errors sponsored by the Society of Actuaries.3 Furthermore, culture survey results improved by 6% between 2015 and 2017, coinciding with the Keystone Center Speak-Up! Award program.

CONCLUSIONS: The Keystone Center Speak-Up! Award has proven to be a valuable tool in recognizing staff awareness and willingness to raise concerns about quality and safety in health care. Data analysis from this program presents evidence that fostering a psychologically safe culture of speaking up yields fiscal and humanistic returns, both of which are crucial to sustainable, meaningful progress in safety and quality. However, further research is required to adequately gauge the degree to which safety culture improvement is proportional to cost savings.

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PMID: 30977243 [Indexed for MEDLINE]

10. J Appl Psychol. 2012 Nov;97(6):1273-81. doi: 10.1037/a0030076. Epub 2012 Sep 17.

Behavioral integrity for safety, priority of safety, psychological safety, and patient safety: a team-level study.

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This article clarifies how leader behavioral integrity for safety helps solve follower's double bind between adhering to safety protocols and speaking up about mistakes against protocols. Path modeling of survey data in 54 nursing teams showed that head nurse behavioral integrity for safety positively relates to both team priority of safety and psychological safety. In turn, team priority of safety and team psychological safety were, respectively, negatively and positively related with the number of treatment errors that were reported to head nurses. We further demonstrated an interaction effect between team priority of safety and psychological safety on reported errors such that the relationship between team priority of safety and the number of errors was stronger for higher levels of team psychological safety. Finally, we showed that both team priority of safety and team psychological safety mediated the relationship between leader behavioral integrity for safety and reported treatment errors. These results suggest that although adhering to safety protocols and admitting mistakes against those protocols show opposite relations to reported treatment errors, both are important to improving patient safety and both are fostered by leaders who walk their safety talk.

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