Effective followership: A standardized algorithm to resolve clinical conflicts and improve teamwork

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In healthcare, the sustained presence of hierarchy between team members has been cited as a common contributor to communication breakdowns. Hierarchy serves to accentuate either actual or perceived chains of command, which may result in team members failing to challenge decisions made by leaders, despite concerns about adverse patient outcomes. While other tools suggest improved communication, none focus specifically on communication skills for team followers, nor do they provide techniques to immediately challenge authority and escalate assertiveness at a given moment in real time. This article presents data that show one such strategy, called the Effective Followership Algorithm, offering statistically significant improvements in team communication across the professional continuum from students and residents to experienced clinicians.

BACKGROUND

The frequency of poor communication between clinical team members and the associated threats to patient safety is well described in the literature.[1–4] Communication has been cited as the third most frequently identified root cause of sentinel events and was identified as a root cause in nearly 60% of sentinel events reported to the Joint Commission in 2012.[5] Moreover, the Department of Veterans Affairs (VA) National Center for Patient Safety Root Cause Analysis (RCA) database suggests that communication failures were a contributing factor in nearly 77% of all RCAs between 2010 and 2013 (Jim Turner, National Center for Patient Safety, SPOT Root Cause Analysis Database, personal communication, April 2014). In a 2013 study, Sydor and colleagues found that the ability of resident physicians to challenge authority during medical simulations was suboptimal; however, improvement was noted as residents progressed through the training program.[4] Additional factors affecting the ability to challenge authority include fear of embarrassment or retribution, concerns for reputation, jeopardizing a relationship, role ambiguity, and conflict avoidance.[1,6,7] These characteristics were noted despite known implications to patient safety.

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Hierarchy serves to accentuate either actual or perceived chains of command, which may result in team members failing to challenge the decisions made by leaders, despite concerns that such decisions may adversely affect patient outcomes.[1,4,6,8–10]

To lessen the adverse effects of hierarchy and improve healthcare team communication, tools such as checklists, trigger events, read-backs, structured handoffs, the 2-challenge rule, advocacy, and inquiry, have all been suggested in the literature.[2,3,7,11] While many of these tools have been shown to improve communication, a limited number directly address the ability to immediately challenge authority at a moment in time. Often, communicating safety concerns does not afford the luxury of extended pauses where templates can be utilized to harness and document relevant thoughts. Safety challenges in the form of respectful assertiveness and advocacy must occur in real time.[11–15] Another relevant shortcoming with existing communication models is the presence of asymmetry in that they focus on only 1 actor in the exchange. For example, "nurse-centered" communication models focus on physician strategies for messaging with nurses but are void of specific tools and communication strategies for nurses.[9] In fact, studies related to tools assisting nurses in speaking up are sparse.

Communication styles and strategies are common components of airline crew resource management (CRM) programs. CRM fundamentals are a mainstay in high-reliability operations embedding useful strategies for effective team communication at the front line. While CRM emphasizes tools and methods for leaders to improve teamwork, it also underscores the other side of the team equation, focusing on the roles and responsibilities of "followers," or those that support team leaders. Followers learn to use tools that allow them to effectively communicate information and assert concerns to gain clear resolution when safety is in question, but these tools have not been consistently applied to healthcare.[3,7,16] Increasing awareness of the threats to safety posed by communication breakdowns underscores the need for communication tools that support clinicians in their ability to "speak up" and respectfully challenge authority when necessary.[2,4,8,17] Raising awareness of common communication strategies used by other fields may lead to safer patient care.[3]

RATIONALE

Conflict, hierarchy, and followership

This article focuses on the "follower"—individuals on clinical teams who are not formally recognized as the leader and thus do not have final decision-making authority. Followers have vital influence on team undercurrents, and for this reason the concept of "followership" endures as a core element in team training programs.[13,14,18–21] Followers are critical to the timely resolution of clinical conflicts. Clinical conflicts occur when there is disagreement among team members on which course of action to take when managing patient care. These conflicts take on more prominence and urgency when they occur in critical situations, where actions taken, or lack thereof, can create irreversible consequences for patients.[9,22,23] Further complicating a clinical conflict is the effect of hierarchy, authority gradients, and intimidation on the human psyche, which can hinder or fully prevent time-critical information exchange between decision makers and team members.[9,24–27] The onus to create fertile ground for effective 2-way communication in the operational environment falls squarely on the shoulders of clinical team leaders (eg, surgeon, code team leader, charge nurse, hospitalist). This is the essence of participatory leadership espoused in any robust CRM program.[28] In aviation, the discussion centers on a captain's demeanor and behavior as he/she interacts with the flight and cabin crew. In healthcare, however, existing dyads—where leader–follower interplay profoundly affects the quality, safety, and timeliness of care—are latent and numerous. Put simply, healthcare is replete with formal and informal hierarchies, all of which, if inappropriately expressed, have the potential to reduce team effectiveness, adversely affecting clinical decision making.

Effective followership capitalizes on the inherent redundancy offered by a fully participative team, and improves situational awareness.[29,30] Effective followers are engaged; they take responsibility for team decisions and see team failures and successes as their own. They resist the natural urge to alienate themselves from team dynamics in moments when personal feelings are at odds with leader personality traits or broader organizational paradigms. Effective followers think critically when faced with operational challenges and are strategic in relaying thoughts and feedback to team leaders. To maximize the probability of a successful outcome for the patient, effective followers "speak up" when necessary, regardless of social pressures or authority gradients shaped by dictatorial leaders. They seek to preserve operational safety at all costs and embrace assertive inquiry and advocacy as a primary responsibility. In a hierarchical sense, effective followership requires a keen ability to "lead from beneath." It implies that one is willing to provide judicious feedback in real time, assertively making a statement or posing a question about a clinical situation when something is perceived to be amiss. Followership assumes that one is willing to advocate for a different course of action believed to be more appropriate than that being pursued by the leader and/or the team.[12–14,18]

Hint and hope communication

In addition to critical thought and strategic action, effective followers are conditioned to recognize suboptimal forms of communication. It is important, especially during time-sensitive or critical scenarios, that feedback is delivered in a specific, direct, and concise manner. Such

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statements can be a challenge for clinicians who are closest to the patient and have assimilated large amounts of patient data (eg, staff nurses, resident physicians). Direct statements may also present difficulties for those uncomfortable delivering information they perceive leaders may not want to hear or that conflicts with what is planned. Assertive statements become exponentially more difficult when intimidation and disrespect is encountered as a byproduct of overly authoritative leadership that often flourishes in less-than-ideal safety climates.[31]

A suboptimal form of communication that poses great risk to patients is the *"hint and hope"* phenomenon.[12,13,32] In this case, an individual sends out an indirect statement (hint), then "hopes" that it captures the leader's attention, is appropriately decoded, and corrective action taken as desired by the sender. In the clinical realm, ineffective follower behavior in the form of hinting and hoping can set the stage for perilous failure modes. Consider the following case adapted for demonstration from AHRQ's Morbidity and Mortality Rounds[33]:

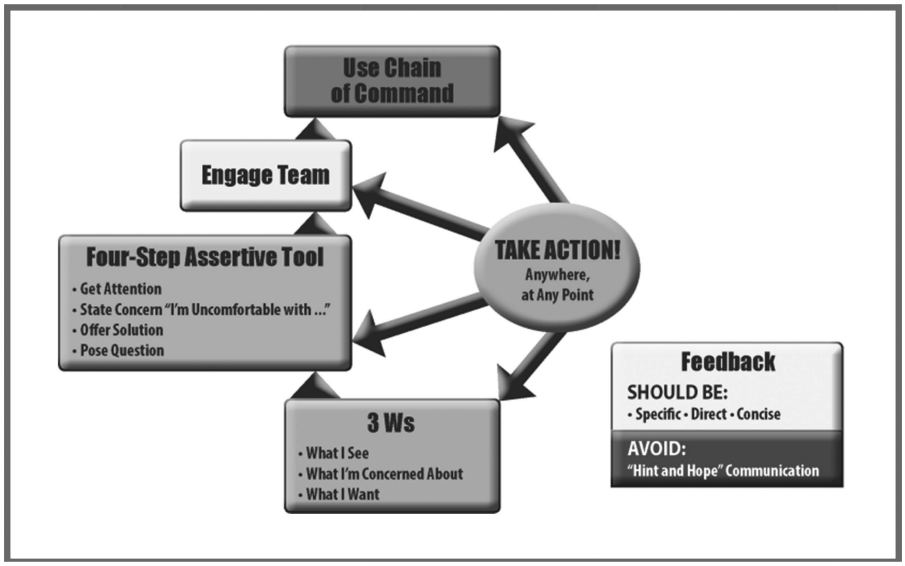
A nurse is caring for a postoperative patient after an anterior cervical discectomy. The patient is experiencing dysphagia, swelling, and pain at the operative site. After receiving 2 calls from the nurse in the middle of the night with subsequent examinations, the resident ultimately instructs the nurse to keep ice on the incision and to wait until the entire surgical team arrives for morning rounds. The nurse, concerned about the presence of a deep postoperative hematoma and potential airway obstruction, does not agree with the resident's treatment plan and wants the attending surgeon called in to evaluate the patient. Unfortunately, the nurse is not direct in relaying her concerns and issues a hint and hope statement, "I wonder if the attending surgeon is aware of these symptoms; after all, it's his patient."

This statement fails to relay the nurse's underlying clinical concerns. Nor does it convey her sense of urgency and outline an alternative plan for managing this patient. Unfortunately, 30 minutes later the patient experiences a complete airway obstruction from a postoperative hematoma, and collapses pulseless. A code blue is initiated and an emergency tracheotomy is performed. The patient survives but has a protracted and difficult rehabilitation. While the preceding nurse–physician dialogue is fictional, this type of dysfunctional interaction between and among clinicians exists in a variety of clinical settings.[16]

INTERVENTION: THE EFFECTIVE FOLLOWERSHIP ALGORITHM

Critical thought and engagement alone may fall short in synthesizing effective statements or offsetting inadequate leader responses. Followers therefore must possess not only an ability to concisely package clinical information in real time, but an adeptness in the art of escalated assertiveness, creating the appropriate inertia for leaders to reconsider operational decisions or change course altogether.[12–14,34] The Effective Followership Algorithm (EFA) (**Figure 1**) was developed to complement critical thinking and active involvement, pose key attributes for

Figure 1:
Effective Followership Algorithm



effective followership, and to avoid the suboptimal "hint and hope" trap.[12,35] The EFA is designed to flow vertically, offering simple standardized verbal templates as well as action steps. Generally, when using the EFA to engage decision makers, one begins at the bottom and works upward in order of escalation; however, there are exceptions. The EFA is explained below.

3Ws©

The algorithm begins with an entry level statement called the 3Ws©: "what I see," "what I'm concerned about," and "what I want." This statement avoids hinting and hoping by providing leaders with direct, solution-oriented feedback. Using the surgery case previously described, a 3Ws© statement would be delivered in the following manner:

What I see is that this patient has continued pain and swelling at the operative site along with dysphagia; What I'm concerned about is a deep hematoma and airway obstruction; What I want is for you to call the attending surgeon immediately.

This statement leaves little doubt as to what patient manifestations are observed, what the concern is (airway), and what action the nurse desires from the resident (surgeon notified immediately).

4-Step Assertive Tool

If entry-level 3Ws© statements fail to engage the team leader, the interaction is escalated in an attempt to resolve the conflict through emphatic dialogue via the 4-Step Assertive Tool. This statement carries with it a more ardent tone, and while its use can be thought of as "escalating assertiveness," its delivery remains respectful at all times. The first step requires that the leader's attention is captured. This can be accomplished through changing voice intonation and addressing the decision maker directly. In some cases, it is effective to address the individual by first name rather than formal title. In healthcare, for example, when considering team exchanges involving physicians, the use of titles is ubiquitous. Therefore, engaging a physician team leader by first name, not formal title, can be effective and should be considered as an option. Next, the concern is restated using a preface such as "I'm uncomfortable with" or "I'm really concerned about." This statement relays the increasing unease felt with regard to operational safety. The next step offers a proposed solution or course of action. Finally, and perhaps most importantly, the fourth part of the tool punctuates the statement with a question. The question places the onus back on the leader, making the statement difficult to ignore. The question can be simple and general, such as, "Do you agree with my suggestion?" or, more specific, such as, "Will you meet me in the patient's room in 10 minutes to assess them?" or "Do you want me to order a type and screen on the patient now?" Using the postoperative hematoma case described earlier, an example of an escalation to the 4-Step Assertive Tool is as follows:

1. Dr. Smith (or first name).
2. I'm very uncomfortable with this situation and the possibility of airway obstruction.
3. I want you to call the attending surgeon immediately.
4. Would you like me to page her for you now?

Engage team

The next escalation step in the algorithm is used in a team setting where more than 2 individuals (leader and follower) are present and can be employed if the 3Ws© and 4-Step Assertive Tool have not resolved the conflict. The purpose is to invoke the participation of other team members, who, up to this point, have been silent observers yet have similar concerns about safety. In this step the individual mounting the safety challenge appeals to the rest of the team by asking, "Does anyone else share my concerns about this situation?" Other team members on the threshold of speaking up may be drawn in. If so, force can be gained to push the leader into full engagement with team concerns, or at the very least, delaying or reconsidering an intended plan of action. The following scenario demonstrates the use of this step:

Two medical residents, a medical intern, and 2 medical students are gathered at the bedside of a patient who is about to undergo a therapeutic thoracentesis. The nurse is intermittently present after being asked to gather supplies and medicate the patient prior to the procedure. The nurse was able to see the consent form being obtained. No family is present; the medical student witnessed the consent, which was accomplished hastily. As the senior medical resident prepares the patient for the procedure, the nurse becomes concerned. The team is not performing a time-out, which is required, according to hospital standard operating procedures. No X-rays are reviewed, the site is not marked to confirm laterality, identity is not confirmed, and the patient is not asked to participate in the identification process. The nurse uses the 3Ws© and 4-Step Assertive Tool, but this only draws irritation from the resident. The nurse, feeling uncomfortable with this conflict, turns to the remaining team members and says firmly, "Is anyone else concerned that we are not completing a time-out prior to this procedure?"

The possibility increases that more than just 1 team member will advocate for adherence to protocols, which may draw the team leader into engagement and compliance.

Chain of command

A chain of command exists in any organization and must be considered as an option for resolving clinical conflicts. For example, if a nurse is speaking with a resident physician on call and does not get the desired response, the nurse has numerous individuals at his/her disposal (eg, senior resident, attending physician, house supervisor, chief of medicine). When using the chain

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of command, it is prudent to inform an individual that there are unresolved concerns and movement up the chain will occur. For example, "Dr. Smith, we don't agree as to what response is needed right now for this patient. I am going to call the attending." There are times when seeking higher levels of authority is completely appropriate; however, as is the case with other steps in the algorithm, its use has a temporal component. If the situation is critical, there may not be sufficient time to invoke the chain of command.

Action

Taking action is something that effective followers are prepared to do when verbal tools fail or threats to operational safety are imminent. Taking action can be considered a bold step and may require explanation of rationale for doing so at a later time to department supervisors. Nonetheless, this step *must* be taken and can be the last line of defense for patients in avoiding iatrogenic events. Cultures vary, many are rigidly centralized, and not all are inclined to empower those at the front line. Even in such a climate, it is not morally or ethically acceptable to stand by and allow a patient to be harmed and take no action; effective followers take action when necessary. Taking action is an option to be considered at any point in an unfolding situation. It may mean gently grabbing someone's wrist to stop them from injecting a medication, turning off an infusion pump, gently moving a clinician aside during a protracted and unsuccessful intubation to oxygenate a patient, or purposefully not procuring a drug or instrument intended for use. Whatever the case, effective followers are prepared to take action to preserve safety when necessary.

IMPLEMENTATION

The EFA was introduced as a key component of a broader CRM-based team training program[13,14] in 4 distinct quality improvement initiatives (**Table 1**). The Department of Veterans Affairs (VA) National Center for Patient Safety (NCPS) began using the EFA with nurses and other staff on inpatient units participating in CRM-based team training between 2010 and 2013. During the same time frame NCPS also introduced the EFA to medical school residents via team training and simulation modules within general patient safety curriculum workshops.[13,14,36] Likewise, between 2011 and 2014, the Algorithm was presented during CRM-based team training programs for faculty and staff in the pediatric and adult operating rooms at a large academic medical center and to senior-level nursing students at the affiliated school of nursing. Each initiative included training sessions, ranging from 4 to 6 hours in duration, delivered via interactive didactic modules. In all cases, the content included role-play and practice case studies with the EFA.

RESULTS

Several instruments were used to capture results in each initiative. Measurement focused on safety attitude, self-efficacy, clinical teamwork, and usability.

Table 1: Reported Implementation of the Effective Followership Algorithm

Site (Year(s))	Setting	Participants	Initiative	Metrics	Results
VA/NCPS, 2010–2013	Inpatient units	Staff	CRM-based team training and simulation sessions	Modified version of the Safety Attitudes Questionnaire (N = 368 pre, N = 189 post), Self-reported use of 3Ws© (N = 800)	Improvements in Safety Culture & Teamwork; Perceived ability to use EFA
VA/NCPS, 2010–2013	Medical school	Residents	Patient Safety Curriculum (includes CRM-based team training module and simulation sessions)	Self-Efficacy of Teamwork Competencies Scale (N = 680), Clinical Teamwork Scale (N = 338)	Improvements in Teamwork and Team Performance
University of Michigan Healthcare System, 2011–2014	Operating rooms	Faculty and staff	CRM-based team training program	Safety Attitudes Questionnaire (N = 390 pre, N = 367 post)	Improvements in Teamwork
University of Michigan, School of Nursing, 2010–2012	Nursing school	Students	Nursing CRM educational workshop and simulation sessions	Observation of using the EFA (N = 135)	Demonstrated ability to use the EFA

Safety Attitudes Questionnaire

In the VA, the initial program targeting nurse and other staff measured safety attitudes using a voluntary and anonymous safety climate questionnaire, derived from Sexton's Safety Attitudes Questionnaire.[37] The questionnaire was administered at baseline (prior to training), 6 months in some units, and 1 year after the initial training in all units. Results of the questionnaire suggested statistically significant improvements from baseline as compared to 1-year follow up (**Figure 2**). The average teamwork domain scores increased significantly from 63.4 at baseline to 72.2 at follow-up ($t = -4.62$, $p < .01$).[13,14]

The Safety Attitudes Questionnaire[37] was administered before and after implementation of team training in the pediatric and adult operating rooms. Independent-sample *t*-tests were conducted to compare each question pre- and post-training. There was a significant difference in scores for each question within the teamwork domain (**Table 2**).

Figure 2:

Percentage of Respondents Who Agree or Strongly Agree With Each Statement[12] (reprinted with permission)

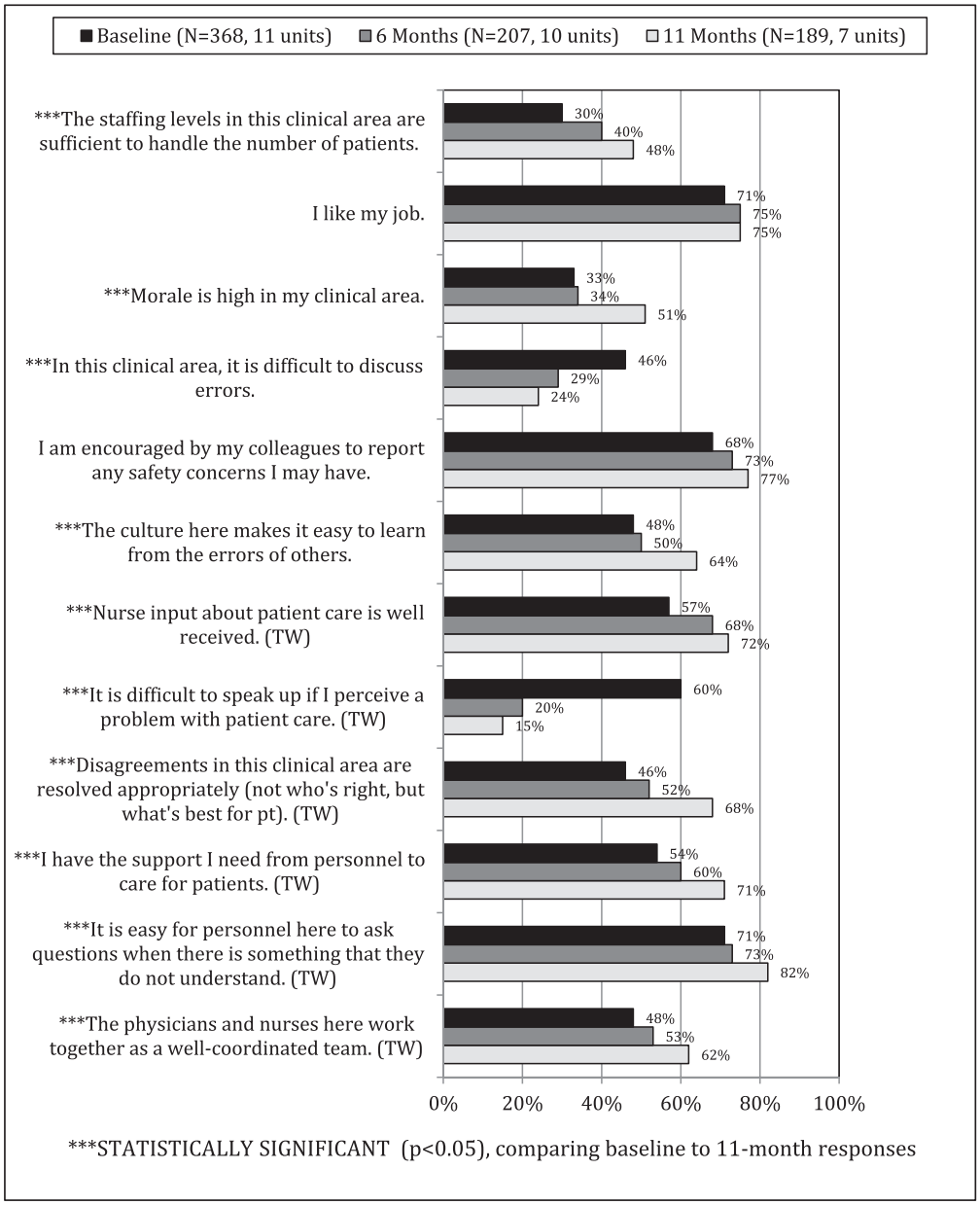

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Table 2: Safety Attitude Scores Pre- and Post-Team Training

	Team Training			
	Pre	**Post**	***t***	***df***
In this clinical area, it is difficult to speak up if I perceive a problem with patient care (reverse coded).	3.57 (1.39) (n = 388)	3.85 (1.32) (n = 367)	–2.85*	753
Disagreements in this clinical area are resolved appropriately (ie, not who is right, but what is best for the patient).	3.49 (1.34) (n = 390)	3.87 (1.23) (n = 367)	–4.08***	755
I have the support I need from others in this clinical area to care for patients.	3.81 (1.33) (n = 389)	4.15 (1.16) (n = 367)	–3.69***	750
It is easy for personnel here to ask questions when there is something that they do not understand.	3.74 (1.28) (n = 388)	4.16 (1.06) (n = 367)	–4.79***	741
Nurse input is well received in this clinical area.	3.60 (1.39) (n = 390)	4.01 (1.19) (n = 365)	–4.84***	747
The physicians and nurses here work together as a well-coordinated team.	3.81 (1.21) (n = 390)	4.04 (1.10) (n = 365)	–2.71*	753

* $p < .05$; *** $p < .001$.

These results suggest that CRM-based team training with emphasis on specific communication tools such as the EFA can improve attitudes and perceptions related to team communication.

The Self-Efficacy of Teamwork Competencies Scale and the Clinical Teamwork Scale

Pre- and post-surveys were administered to those participants undergoing high-fidelity simulation as part of both VA programs between 2010 and 2013. The Self-Efficacy of Teamwork Competencies Scale[38] was examined to capture learner attitude toward using the 3Ws© and 4-Step Assertive Tool by tabulating participant concurrence with the following statements pre- and post-simulation: *"I communicate with team members to ensure that we have a common understanding of the patient's condition"* and *"I use specific communication strategies to confirm that messages are received and the content is accurately understood."* Both nurses and residents self-reported higher efficacy in teamwork and communication skills following simulation-based training utilizing EFA tools. These improvements in team communication in a simulated crisis were highly significant across roles (**Figure 3**).

Team performance was also measured using the Clinical Teamwork Scale (CTS).[39] The CTS was completed by trained NCPS faculty observers with expertise in patient safety and team training pre- and post-simulation experiences. Observers scored element 7, "Overall situational awareness" (the teams shared understanding of the actual state of the patient via team communication) and element 14, "Perform as a helper (follower assertiveness)." Analysis demonstrates that training and use of the EFA tools were associated with a significant improvement in team performance, specifically in the domains of situational awareness and team member assertiveness (**Figure 4**).

Using the EFA

At the School of Nursing, 5 of the 9 initial nursing student groups that received CRM training used or attempted to use the 3Ws© in their communication with the physician during clinical simulations.[35] Subsequent groups, including a total of 135 nursing students (fall term, $n = 73$; winter term, $n = 62$), were evaluated in a high-fidelity simulations post-CRM training. Video observations were taken and later reviewed to determine whether the students attempted to use EFA tools. Results from this cohort showed 11 out of 23 groups were able to partially use the 3Ws© (eg, use of at least 2 of the 3Ws©) and 12 groups were able to fully utilize the 3Ws©. When asked to describe the most beneficial aspect of the training, many comments related back to the communication algorithm. Students saw the EFA as a "usable strategy" to enhance interdisciplinary communication. Additionally,

Figure 3:

Mean Self-Efficacy of Teamwork Competency Scale Scores Pre- and Post-Training

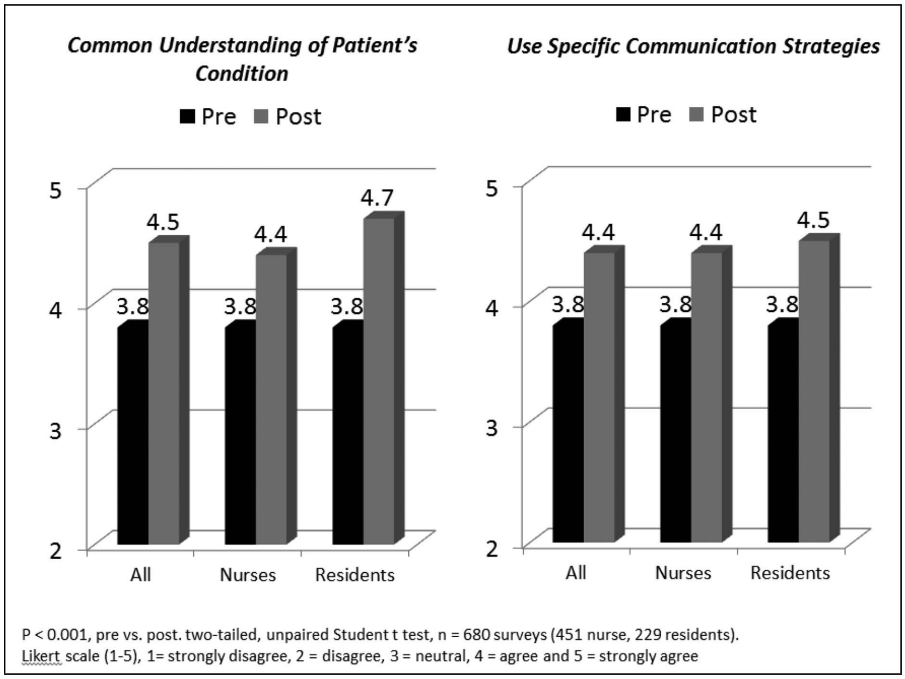
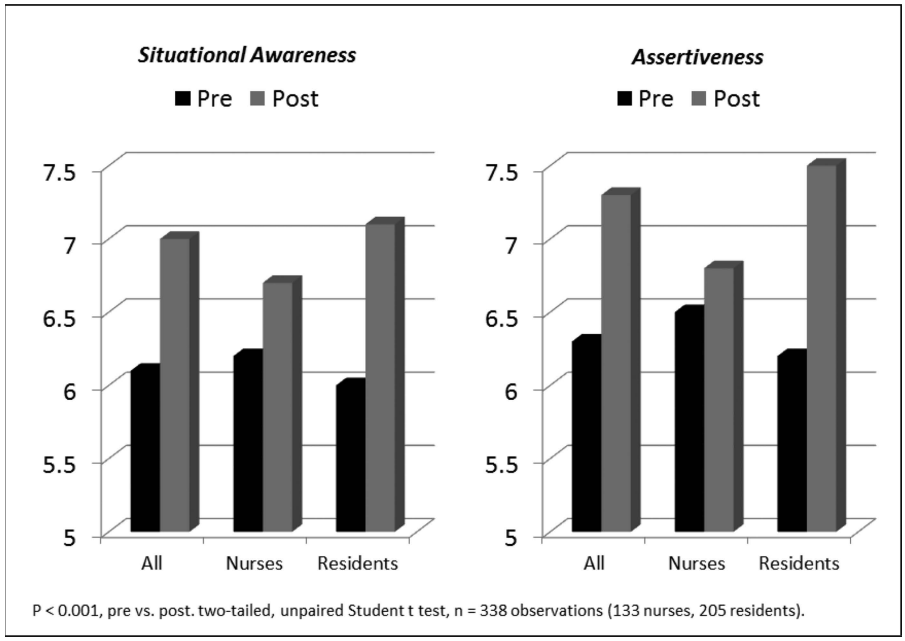


Figure 4:

Improvements in Team Performance Using the Clinical Teamwork Scale



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when VA nurses were asked to self-report use of the 3Ws© before and after the program, the proportion of participants that agreed or strongly agreed that it is common on the unit increased from 26% ($N = 109$) to 35% ($N = 128$) ($p < .01$).

CONCLUSION

Healthcare is an industry replete with authority gradients and hierarchies that can negatively affect the quality and timeliness of communication. Communication failures where team members are ineffective in speaking up to decision makers when conflicts exist can have profound negative consequences for patients. While some team training programs have proposed handoff templates and structured communication, the implementation of a comprehensive assertive communication tool for resolving disagreements or conflicts in real time can improve team communication and clinical decision making. Introduction of the EFA as a central component of a CRM-based team training program can improve team communication, team situational awareness, and a team members' ability to raise concerns so that clinical conflicts can be appropriately addressed. These improvements are multidisciplinary and occur across the professional continuum from undergraduate nursing students and resident physicians to experienced clinicians. The EFA is fundamental to a multidisciplinary team training program. Data on its use and effectiveness should continue to be examined.

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