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Review Article

**ASPECTS TO IMPROVE TEAMWORK AND
COMMUNICATION IN THE OPERATING ROOM**

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The importance of effective communication in healthcare is widely acknowledged. When communication issues do arise, they are most commonly encountered between various members of a team, such as an anesthesiologist and surgeon or a nurse and doctor. These 'interface' challenges are also prevalent in aviation, where team collaboration and communication are seen as essential non-technical abilities. We have reviewed the literature for all relevant articles published up to the end of 2021, and furthermore, references reviewed for more relevant articles to be included.

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INTRODUCTION:

A team is defined as a distinct group of two or more people operating within a larger organizational setting to achieve a common purpose through particular interdependent responsibilities and task limits [1]. Because team tasks are interconnected, individual members must adapt their own inputs and efforts to those of their teammates in order to achieve common goals. Teamwork is defined as the behaviors (such as backup behavior and closed-loop communication), cognitions (shared mental models), and attitudes (such as cohesiveness and collective efficacy) that enable interdependent performance [2]. Teamwork has been associated with positive patient outcomes such as lower risk-adjusted ICU mortality, lower nursing turnover, and higher patient satisfaction.¹² Furthermore, provider communication has been connected to key outcomes like job satisfaction, job stress, and turnover [3].

Failures in coordination and communication among hospital doctors have been linked to higher mortality rates in intensive care units, longer lengths of stay and higher nurse turnover, and increased postoperative pain with worse functioning levels in patients.³ Nursing reports of collaboration between nurses and house staff were favorably associated with improved patient outcomes in medical intensive care units, whereas house staff reports were not [4]. Surgical teams at VA hospitals with low mortality rates communicated more efficiently and frequently than surgical teams at VA facilities with high mortality rates [5].

The value of clear communication in the operating room (OT) has long been recognized [6]. Nonetheless, poor communication is a primary cause of surgical failure [7]. The aviation industry's crew resource management principles emphasize the importance of employing the closed-loop communication (CLC) technique in preventing bad events [8]. CLC is made up of three parts: (1) an initial message that begins with the recipient's name, known as directed call out; (2) verification by the named recipient, including repeating the critical aspect of the message, known as check back; and (3) verification by the message sender that the recipient correctly interpreted the sent message, known as closing the loop [9]. As a result, before beginning an operation, the World Health Organization (WHO) Surgical Safety Checklist (SSC) briefing includes an introduction outlining the name and role of all team members. However, there is minimal evidence to suggest how name and role introductions increase staff name recall [10]. Aside

from the SSC introduction round, there are simple ways for remembering and using each other's names and roles, such as posting the names on a whiteboard and team briefing. Furthermore, the Patient Safety Network's 'Theatre Cap Challenge' emphasizes the significance of visual staff identification by writing your name and role on your surgical cap when working in high-stress situations like the OT. Name stickers are already used in other departments, such as the trauma room, to identify staff, therefore this method might be simply used in the OT [9,10].

DISCUSSION:

Communication breakdowns in the operating room are widespread and can endanger patient safety [10,11]. As a result, assessing the effectiveness of communication in surgical teams will allow for prompt issue solving and potential interventions in the delivery of surgical treatment.

Awad and colleagues [12] published baseline data from an earlier version of this questionnaire, which revealed that surgeons rated higher than anesthesiologists and nurses. Thomas and colleagues¹⁸ reported teamwork survey findings with critical care nurses and physicians who worked together and perceived the success of their collaboration differently. Again, physicians indicated higher positive attitudes toward teamwork. According to DeFontes and Surbida [13], physicians value teamwork with nurses more than nurses value teamwork with physicians. Finally, Makary and colleagues [14] reported that surgical professionals value teamwork within their own field more than teamwork in other areas, based on a comprehensive survey study of 60 hospitals. Surgeons value overall teamwork more than nurses working in the same operating room. Another essential aspect of this study was to provide more proof of the MTT questionnaire's construct validity.

Before the start of the surgical procedure, OT staff usually uses the team brief and the time-out as part of the five steps to safer surgery to establish their name and role [15]. This may be useful, but it is insufficient to recall all of the names. Because faces are hidden under surgical caps and masks in some situations or phases of a surgery, it is particularly difficult to recall names. Protective gear and breathing masks, especially during the COVID-19 epidemic, make it even more difficult to recognize each other in the hospital. Furthermore, while concentrating behind the surgical drape or staring at the laparoscopic monitor, team members may not always be able to make eye

contact. All of these things might make engagement and communication more difficult. Responding to stressful events, such as performing surgery during the COVID-19 epidemic, requires the team to promote trust and coherency among colleagues. It is critical to apply the directed call out and CLC tactics in these instances.

Other research has found that the principal surgeon's name is frequently the easiest to recall [16]. This could explain why nurses wear name stickers more frequently. According to research, strong leaders are typically distinguished by their ability to remember and use the names of others with whom they collaborate [17]. Although some may not recognize or grasp the importance of something as simple as knowing and using one another's names, it is widely accepted that people feel more valued and are more willing to contribute if they are addressed by name, hence improving team coherence [17].

The OT is a complex, dynamic, and technologically rich setting in which interprofessional teams must coordinate care using sophisticated, cutting-edge equipment and procedural approaches while reacting to frequently rapid changes in patient status and condition. As a result, OR teams must collaborate effectively in order to achieve safe, high-quality patient results. However, in the modern OR, team function is hampered by recurring problems that impede effective performance. Tribalism within professions [18] fosters a work environment characterized by dysfunctional communication, a lack of a shared mental model, role uncertainty, and disruptive conduct. Ineffective team dynamics can lead to an increase in errors, a decrease in patient safety, and an increase in morbidity and mortality [19]. According to team research, these weaknesses in OR cooperation are correctable. The implementation of team processes improves team performance in acute care settings by as much as 2.8 times [20]. Furthermore, team development interventions (TDIs) such as perioperative checklists [14] and simulation-based training (SBT) increase OR teamwork as well as clinical process and outcome metrics. Interprofessional collaboration appears to positively influence clinical process and patient outcomes in other healthcare domains as well [21,22].

Similar trends and findings occur in relation to OR team members' lack of role definition, as well as their varied inter-professional conceptions of teamwork and hierarchical organization. These concerns in the OT

were perceived or known by interviewees in this study. Members identified communication through introductions and speaking up as important to effective teamwork [23,24], as well as smooth flow as a result of knowing roles and responsibilities, a united effort involving a lack of hierarchy, and a positive attitude by staying calm and being nice.

Fortunately, there are evidence-based [25] that can address the deficiencies in modern OR team dynamics. Such interventions can also teach the components of smooth flow, collaboration, communication, and a positive attitude, which were regarded as critical for effective OR teamwork in this study by interviewees. The most common interventions in healthcare are team training, particularly SBT of healthcare teams, and debriefing. For over a decade, the authors have been conducting high-tech, student OR team training (SORTT) to present critical team-based competencies to prelicensure students preparing for clinical work in the OT [26].

CONCLUSION:

A clear, audible, and concentrated message from a transmitter is sent to an attentive, undistracted receiver, and includes both spoken and nonverbal communication kinds. Communication in the health care system is highly complicated and dynamic, encompassing a variety of venues, participants, and obstacles. Effective communication in the perioperative setting is essential for safe patient care delivery and is a crucial component of collaboration. A message must be delivered accurately in a high-risk, time-sensitive environment riddled with diversions, impediments, and challenges. Surgical checklists and time-out procedures have encouraged a standardized, "all-hands" approach to tackling some of the barriers to successful communication in the perioperative setting. Postoperative debriefing sessions have been shown to improve team functioning in the simulated learning environment and hold promise as another technique to address these problems, but further study and development is needed. Other intriguing ways for improving successful perioperative communication focus on team building activities and avoiding distractions at important periods in patient care delivery, but have yet to be supported by research.

REFERENCES:

1. Salas E., et al.: Communicating, coordinating, and cooperating when lives depend on it: Tips for teamwork. *Jt Comm J Qual Patient Saf* 34:333–341, Jun. 2008.

2. Institute of Medicine: To Err Is Human: Building a Safer Healthcare System. Washington, DC: National Academy Press, 2000.
3. Sorra J., et al.: Hospital Survey on Patient Safety Culture: 2009 Comparative Database Report. Agency for Healthcare Research and Quality, Mar. 2009. <http://www.ahrq.gov/qual/hospsurvey09/hospsurv091.pdf>.
4. Salas E., et al.: Toward an understanding of team performance and training. In Swezey R.J., Salas E. (eds.): Teams: Their Training and Performance. Norwood, NJ: Ablex, 1992, pp. 3–29.
5. Kozlowski S.W.J., Bell B.S.: Work groups and teams in organizations. In Borman W.C., Ilgen D.R., Klimoski R.J. (eds.): Handbook of Psychology (vol. 12): Industrial and Organizational Psychology. New York City: Wiley, 2003, pp. 333–375.
6. Dickinson T.L., McIntyre R.M.: A conceptual framework for teamwork measurement. In Brannick M.T., Salas E., Prince C. (eds.): Team Performance Assessment and Measurement. Mahwah, NJ: Lawrence Erlbaum Associates, 1997, pp. 19–43.
7. Brannick M.T., Prince C.: An overview of team performance measurement. In Brannick M.T., Salas E., Prince C. (eds.): Team Performance Assessment and Measurement. Mahwah, NJ: Erlbaum, 1997, pp. 3–16.
8. Cannon-Bowers J.A., et al.: Toward theoretically based principles of training effectiveness: A model and initial empirical investigation. *Military Psychology* 7:141–164, Sep. 1995.
9. Salas E., et al.: Is there a “big five” in teamwork? *Small Group Research* 36:555–599, Oct. 2005.
10. Wahr JA, Prager RL, Abernathy JH, 3RD, et al. 2013. Patient safety in the cardiac operating room: human factors and teamwork: a scientific statement from the American Heart Association *Circulation* 128 1139–1169.
11. Wakefield JG, Mclaws M-L, Whitby M, Patton L. 2010. Patient safety culture: factors that influence clinician involvement in patient safety behaviours *Quality and Safety in Health Care* 19:585–591.
12. Awad SS, Fagan SP, Bellows C, et al. Bridging the communication gap in the operating room with medical team training. *Am J Surg* 2005;190:770–774.
13. DeFontes J, Surbida S. Preoperative safety briefing project. *Permanente J* 2004;8:21–27.
14. Makary MA, Sexton JB, Freischlag JA, et al. Operating room teamwork among physicians and nurses: teamwork in the eye of the beholder. *J Am Coll Surg* 2006;202:746–752.
15. Russ S, Rout S, Caris J, et al. 2015. Measuring variation in use of the WHO surgical safety checklist in the operating room: a multicenter prospective cross-sectional study *Journal of the American College of Surgeons* 220 1–11.e4
16. Burton ZA, Guerreiro F, Turner M, Hackett R. 2018. Mad as a hatter? Evaluating doctors’ recall of names in theatres and attitudes towards adopting #theatrechallenge *British Journal of Anaesthesia* 121 984–986
17. Lussier RN, Achua CF. 2015. Leadership: Theory, Application, & Skill Development Boston, Cengage Learning.
18. Schmutz JB, Meier LL, Manser T. How effective is teamwork really? The relationship between teamwork and performance in healthcare teams: a systematic review and meta-analysis. *BMJ Open*. 2019;9:e028280-2018-028280.
19. Pugel AE, Simianu VV, Flum DR, Dellinger EP. Use of surgical safety checklist to improve communication and reduce complications. *J Infect Pub Health*. 2015;8:219–225.
20. Sacks GD, Shannon EM, Dawes AJ, et al. Teamwork, communication and safety climate: systematic review of interventions to improve surgical culture. *BMJ Qual Saf*. 2015;24:458–467.
21. Paige JT, Garbee DD, Kozmenko V, et al. Getting a head start: high fidelity, simulation-based operating room team training of inter-professional students. *J Am Coll Surg*. 2014;218:140–149.
22. Salas E, Shuffler ML, Thayer AL, Bedwell WL, Lazzara EH. Understanding and improving teamwork in organizations: a scientifically based practical guide. *Hum Resour Manage*. 2015;54:599–622.