When I say … team reflexivity

Author(s):
Schmutz, Jan; Eppich, Walter J.

Publication date:
2019-06

Permanent link:
https://doi.org/10.3929/ethz-b-000386923

Originally published in:
Medical Education 53(6), https://doi.org/10.1111/medu.13768

When I say… team reflexivity

Jan B. Schmutz, PhD*

Walter J. Eppich, MD, MEd

Dr. Schmutz is a researcher at the Department of Communication Studies, Northwestern University, Evanston, USA

Dr. Eppich is associate professor of pediatrics-emergency medicine and medical education, Northwestern University Feinberg School of Medicine, Chicago, USA

*Corresponding author:

Jan B. Schmutz

ATLAS Lab

Department of Communication Studies

Northwestern University

Frances Searle Building 1.220

2240 Campus Drive

Evanston, IL 60208

jan.schmutz@northestern.edu

The radio alerts the emergency department (ED) that paramedics are bringing an 8-year-old, Trevor, who was hit by a car while crossing the street while playing yo-yo. According to paramedics, the boy has significant trauma to the head and complains about shortness of breathing and abdominal pain. The ambulance will arrive in 10 minutes. Shortly after the radio call, the trauma team gathers in the ED. The trauma team leader briefly informs the rest of the team about the patient who will arrive shortly--everyone nods. While waiting, the team discusses a complicated case from earlier in the day. A few minutes later, the patient arrives.

During the initial assessment, the patient becomes less responsive and vomits. The blood pressure falls. Team members are not clear about priorities for immediate next steps. Should the patient be intubated or should fluid resuscitation occur first? Since the oxygen saturation also begins to fall below 90%, the young trauma team leader decides to intubate the patient first and calls out medications and equipment sizes. The resident managing the airway looks for the intubation set but cannot find the correct endotrachael tube size. The blood pressure continues to drop. The team seems uncoordinated; many people talk loudly at the same time. The senior ED physician enters the room—no one notices her. She observes the situation for a moment then interrupts the team with an assertive voice: *"Everyone listen up now, first let's start bag-mask ventilation to improve oxygen saturation (directed to resident at head of bed), then let's review the situation quickly and discuss our priorities!"*

Such dynamic and complex situations pervade healthcare. Emergency tasks, such as intubating hypotensive trauma patients, demand multiple interdependent actions that teams must coordinate and manage simultaneously. Further, the dynamic nature of critical illness requires teams to constantly assess new information "on the go" and adapt to changing circumstances. A

crucial team process that fosters team information processing and adaptation is team reflexivity (TR).

TR is defined as a team's ability to reflect collectively on group objectives, strategies (e.g. decision-making), processes (e.g. communication), and outcome of past and current performance and ultimately adapt accordingly.[1] Through these reflective process, teams recognize discrepancies between actual and desired circumstances and adapt to reach their goal(s). TR includes looking back and *seeking information* (e.g. *"Can we summarize what we have done so far?"*), *evaluating* information in order to acquire a deeper understanding about processes, situations or actions (e.g. *"Why did this treatment work/not work?"*) and finally looking forward by planning what action(s) to take based on the evaluation made previously (e.g. *"What are our next steps then?", "What will we do differently next time*?"). In contrast to individual reflection, TR represents a team-level construct and therefore necessitates communication. Depending on the timing in relation to the patient care episode, TR takes on different forms and varies in scope, thus enabling different outcomes (for a recent framework see Schmutz & Eppich, 2017).[2] Teams can reflect either *before*, *during* or *after* patient care.

Pre-action TR occurs *before* patient care episodes and collectively anticipates upcoming activities. Shared reflection before action prepares teams for impending events and increases situational awareness by predicting possible scenarios in advance. The trauma team in our vignette missed the opportunity for pre-action TR. The 10 minutes from the announcement until Trevor's arrival should have been used to collectively review expectations and possible outcomes and complications. During this process, the team might have prepared intubation equipment as well as discussed possible medications. By thinking ahead, they could have saved valuable time during patient care.

In-action TR describes concurrent reflection *during* an ongoing action. It focuses on shared reflection about the action *while the action is ongoing* and has immediate implications for the "here and now". This includes assessing whether the team attends to the right problems and executes tasks correctly. As a result of in-action TR, a team confirms correct actions deliberately or adapts if necessary. In-action TR helps teams to step back mentally from the task at hand to process emerging information. Questions addressed to the team like *"Let's summarize the situation", "What might we be missing",* and *"What are our next steps?"* trigger in-action TR and invite team members to make suggestions and contribute to the current situation. Research has shown that in-action TR is especially important for complex diagnostic tasks as well as when team size increases.[3] In our example, the senior emergency physician entering the room engages in in-action TR in its fullest form—as a brief time-out.[4] Such time-outs can "reboot" the team and bring everybody back on the same page in situations where coordination gets out of hand.

Post-action TR happens after patient care and represents classical debriefings. In such debriefings, a team reviews and evaluates past behavior (e.g. *"What went well?", "What didn't go well?"*) and then looks ahead by answering questions like: *"What will we do differently in the future?".* Of course, learning at team and system levels comprises the immediate goal of post-action TR, which includes defining what actions should a team continue to do and what actions should be changed and improved in the future. The trauma team from our case might come together for a clinical event debriefing to discuss the case after Trevor has been stabilized in intensive care unit, even if not all team members participate. In this case, a potential take-away for future cases might be to use the timeframe between patient announcement and arrival deliberately for pre-action TR to optimize team preparation.

TR behaviors do not typically arise naturally. Further, TR may even trigger unpleasant feelings for certain team members given the potential for negative feedback and demands for change. Therefore, TR should become an integral part of existing structures (e.g. daily briefings/debriefing). Simulation-based team training (SBTT) represents an ideal venue to train TR (for recommendations on integrating TR into SBTT, see Schmutz, Kolbe & Eppich, 2018[5]). Teams that reflect together take advantage of crucial opportunities to develop and learn and, thus, improve patient care.

REFERENCES:

1. West MA. Reflexivity, revolution and innovation in work teams. In: Beyerlein MM, Johnson DA, Beyerlein ST, eds. *Product Development Teams*. Vol 5. Stamford, CT: JAI Press; 2000:1-29.
2. Schmutz JB, Eppich WJ. Promoting learning and patient care through shared reflection: A conceptual framework for team reflexivity in healthcare. *Acad Med*. 2017;92:1555-1563. doi:10.1097/ACM.0000000000001688.
3. Schmutz JB, Lei Z, Eppich WJ, Manser T. Reflection in the heat of the moment: A temporal approach to team reflexivity in healthcare. *J Organiz Behav*. doi:10.1002/job.2299.
4. Rall M, Glavin R, Flin R. The "10-seconds-for-10-minutes principle-"Why things go wrong and stopping them getting worse. *Bulletin of The Royal College of Anaesthetists*. 2008;51:2614-2616.
5. Schmutz JB, Kolbe M, Eppich WJ. Twelve tips for integrating team reflexivity into your simulation-based team training. *Med Teach*. 2018:1-7.