Managing teamwork in the face of pandemic: evidence-based tips

Scott I Tannenbaum,[1] Allison M Traylor ,[2] Eric J Thomas,[3,4] Eduardo Salas[2]

[1]Group for Organizational Effectiveness, Albany, New York, USA
[2]Department of Psychological Sciences, Rice University, Houston, Texas, USA
[3]The McGovern Medical School at The University of Texas Health Science Center Houston, Houston, Texas, USA
[4]The University of Texas at Houston – Memorial Hermann Center for for Healthcare Quality and Safety, Houston, Texas, USA

Correspondence to
Dr Eduardo Salas, Department of Psychology, Rice University, Houston, TX 77005, USA; eduardo.salas@rice.edu

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Front-line medical teams are experiencing unprecedented stressors as a result of the COVID-19 pandemic. In the face of these pressures, teamwork has become both more important and more challenging. Fortunately, numerous examples of naturally occurring cooperation are appearing at healthcare institutions around the globe, including instances of people trying to work together during the crisis who may not have done so under 'normal' conditions. A crisis can stimulate some people's willingness to cooperate, for example, to ignore prior disagreements to tackle a shared predicament. But even when the intent to cooperate is present, the incessant stress present during a crisis makes it significantly harder for teams to sustain coordinated performance over time.[1 2] Focused attention on teamwork is required.[3]

Prior research conducted on teams under stress can be used to help anticipate risk points that can adversely impact teamwork and reveal what can be done to help teams coordinate effectively, maintain resilience and ensure patient safety during the pandemic. This article offers several evidence-based recommendations to help clinical teams that work directly with patients during COVID-19 and in future crises. Tips are included for clinical care team leaders and team members, as well as for members of management who support or oversee clinical teams (senior leaders, middle managers, crisis management teams).

Over the last 30 years we have studied and advised teams across a broad range of settings. Some of these teams work in what you might think of 'normal' or routine settings, such as manufacturing or sales. But many perform in high-stress conditions where the consequences of failure and personal pressures are high, including teams of astronauts, deep sea divers, jet fighter pilots, smoke jumpers, miners, emergency medical technicians, soldiers and trauma teams. During this time, research on team effectiveness has expanded and close to 50 meta-analyses have been published.[4] Based on those meta-analytic findings, numerous studies on team effectiveness specifically in healthcare settings[5] and our nearly 100 years of collective experience studying teams, we offer the following advice on how to counteract prevalent stressors and overcome risks that can adversely affect teamwork.

As shown in figure 1, the COVID-19 pandemic creates a set of individual, team, organisational and work-life stressors that can impact front-line patient care teams. Those stressors can stimulate emergent risk points, which, if not avoided or mitigated effectively, will likely result in poor teamwork, and negatively affect patient safety and quality of care.

Table 1 contains a set of seven recommendations and 19 associated tips for addressing those risk points, with key psychological constructs highlighted in bold. Our focus is on offering research-based advice that is actionable and feasible in the midst of a crisis: for example, we do not recommend intact team training because, despite evidence of its effectiveness, it is typically not feasible during a crisis. Below we briefly explicate each of the recommendations and several of the tips.

1. *Recognise wins and successes—large and small*. Research shows that teams perform better when they possess '*collective efficacy*', or a belief that their team can succeed in these conditions.[6] Note that this is different from self-efficacy, or the belief that *you* can succeed. It is also different from team potency, or the belief that your team is *generally* capable. Collective efficacy is context specific: it describes beliefs

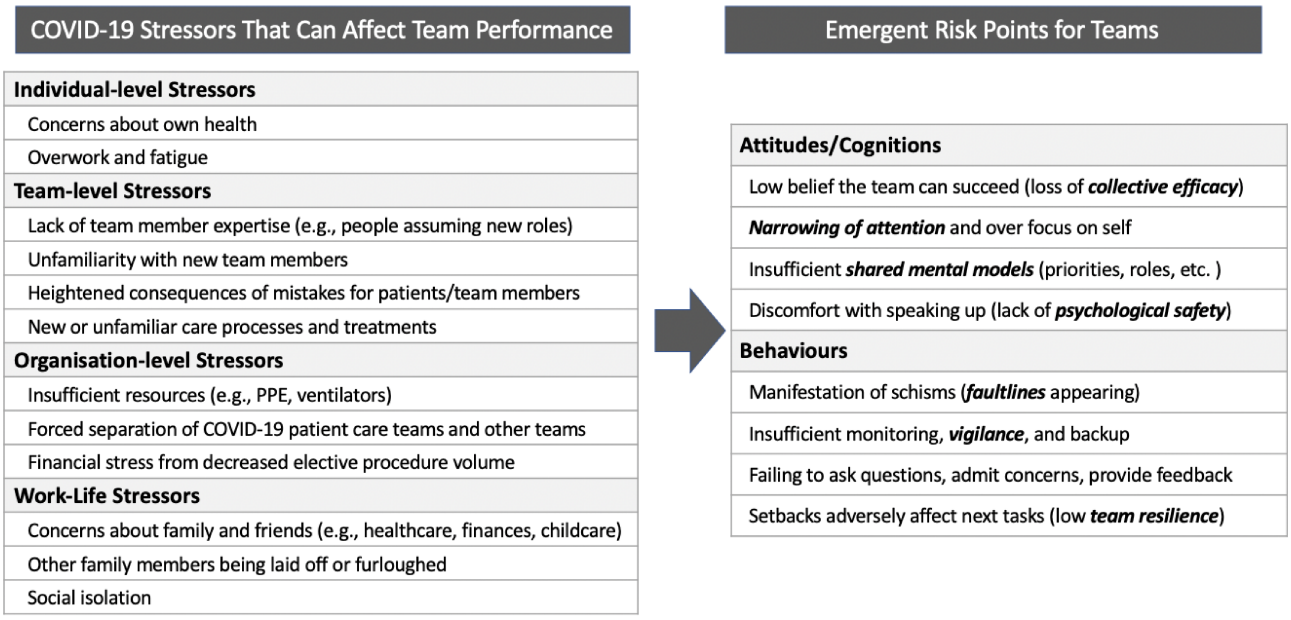

Figure 1 Stressors and risk points. PPE, personal protective equipment.

about your team's likelihood to successfully perform specific tasks under the current circumstances. During the pandemic, teams may be overwhelmed by high patient volume, scarce resources and challenging cases. If continually confronted with fatalities, a team can easily lose collective efficacy. Therefore, it is important to communicate the team's wins, both large and small. For example, when a high-acuity patient survives through the actions of the team, a team leader can share an update with the entire team, not just those who happened to be bedside. Middle managers can ensure that if a 'win' occurs after a shift is over, that information about the win is communicated back to the team that was originally involved. Repeated exposure to and a sole focus on problems, mistakes, obstacles and undesirable consequences drains collective efficacy. During COVID-19, reminders about successes, signs of progress and obstacles overcome are needed to retain a sense of efficacy.

2. *Ensure the team sustains shared mental models (SMM)*, particularly about roles and priorities. Psychologists use the term *SMM* (or team cognitions) to refer to a team's shared, accurate and complementary understanding of their domain. Teams need strong SMMs to coordinate seamlessly and adapt dynamically.[7] It's not that every team member must know the exact same thing, but that they share a 'common enough' understanding of key elements. During the pandemic, when work tempo is high and new treatments and care processes are being adopted, team members can readily develop different understandings about the purpose of an action or about responsibilities. While we recognise that time is limited, we encourage teams to conduct quick, periodic prebriefs, debriefs and huddles[8] as well as thoughtful handoffs,[9] using those touchpoints to share current priorities, clarify responsibilities and decision authority and confirm who has the most expertise/latest information related to key needs.[10] Team members can help their team sustain a shared perspective by asking questions when they are unsure about a priority or a new process. Often when one team member is uncertain, others are as well, so all team members can benefit from hearing the answer.
3. *Don't forget the people behind the scenes*. Healthcare providers who are providing hands-on patient care during the pandemic have rightly been referred to as heroes. They face the greatest personal risk, and often serve as both service provider and source of emotional support for patients who are sick and dying and are isolated from their loved ones. Though much of the attention should be on supporting those hands-on teams, it is also important to recognise that others are continuing to work behind the scenes, ensuring supplies are procured, families are updated, information systems remain functional, non-COVID patients are cared for, and so on. Research has uncovered the perils of '*faultlines*', where schisms can occur in a team under pressure, creating 'us' versus 'them' dynamics.[11] One potential fault line is between those providing COVID care and those in supporting roles. Management should be sure to acknowledge the contributions of those in supporting roles to help them stay engaged during the pandemic and, equally important, to help avert fault line-induced silos and fractures during the postcrisis recovery period. Team members and leaders can help by recognising the people behind the scenes who have helped them.
4. *Emphasise and promote team mutual monitoring*. Research shows that effective teams successfully monitor three things: the situation, team performance and teammates.[4] In a highly stressful, high-tempo, dynamic environment, monitoring is both more important and more difficult to maintain. When humans experience stress, a well-documented response is a *narrowing of attention*[12] and an overfocus on the self,[13] so monitoring

Table 1 Evidence-based recommendations and related risk points

Risk points	Recommendations and tips to address risk points	For whom		
		Management	Team leaders	Team members
Uncertainty or doubt that team can succeed; poor collective efficacy	*1.* Recognise wins and successes—large and small.			
	Communicate wins within the team.		X	
	Share success stories across teams.	X		
	Congratulate teammates when they successfully overcome a challenge.		X	X
Competing or inconsistent mental models; narrowing of attention	*2.* Ensure the team sustains shared mental models (SMM).			
	Conduct quick, periodic prebriefs and huddles.		X	
	Ensure thoughtful cross-shift/cross-team handoffs.	X	X	
	Ask questions when you become unsure about priorities or expectations.			X
Manifestation of schisms, fault lines; silos	*3.* Don't forget the people behind the scenes.			
	Acknowledge the contributions of those in supporting roles.	X		
	Recognise people who help your team (eg, who find resources or deal with a problem).		X	X
Insufficient monitoring, vigilance, backup; narrowing of attention; low psychological safety	*4.* Emphasise and promote team mutual monitoring.			
	Begin a shift or prebrief with a reminder about what to monitor.		X	
	Proactively ask if you can help, particularly with teammates who may be in an unfamiliar role.		X	X
	Thank people when they offer feedback or assistance, even if you didn't need it.		X	X
Discomfort with speaking up; lack of psychological safety; failing to ask questions or admit concerns	*5.* Take actions that build and sustain psychological safety.			
	Acknowledge where you can improve and admit when you have questions.	X	X	X
	Thank others when they admit a mistake or offering a dissenting view.	X	X	X
Narrowing of attention; overfocus on self; reduced vigilance	*6.* Help team members address concerns with their 'home team' (if possible).			
	Seek ways to help team member's family (financial, informational or emotional assistance).	X		
	Be a good listener to teammate's problems.		X	X
Setbacks adversely affecting readiness to perform subsequent tasks; low team resilience	*7.* Consciously boost team resilience.			
	Anticipate, plan for and attempt to address stressors, surges and likely setbacks.	X	X	
	Quickly identify what is not working and encourage adaptations.		X	X
	Apologise for dysfunctional behaviours that occurred under stress.		X	X
	Smartly and 'intentionally' shift the team from normal to emergency modes as appropriate.		X	

may naturally decline. Teams need to focus consciously on monitoring, or they risk getting swept up in the turbulence. One way team leaders can encourage this is to begin a shift or prebrief with a reminder about monitoring: for example, to alert the team to be ready to *back up* one another if they see someone who appears to be overwhelmed or fatigued. Or perhaps the leader can emphasise situation monitoring (eg, about case volume) or performance monitoring (eg, early spotting of a concern where patient care may be at risk, or performance related to donning and doffing of personal protective equipment). Team members can make it easier for their colleagues to engage in mutual monitoring by openly offering and readily accepting assistance. Monitoring and subsequent communications are prerequisites for sustaining SMMs about roles and priorities.

5. *Take actions that build and sustain psychological safety*. Psychological safety is the extent to which team members perceive that they can take interpersonal risks such as speaking up, admitting a mistake, acknowledging confusion and offering a dissenting opinion without undue risk of being punished or rejected. Research shows it is one of the strongest predictors[14] of team effectiveness (Google found it to be the top predictor in their teams). It is particularly important in dynamic situations where the leader cannot see everything and must rely on the team to speak up and ask questions, as is likely to be quite prevalent during a pandemic. Team leaders and manage-

ment can promote psychological safety by acknowledging how challenging the circumstances are for everyone, by vocalising how they can personally improve and by thanking others for admitting a mistake. Maintaining psychological safety now will also pay big dividends in the aftermath of the crisis, when teams need to be able to reflect openly on what happened and establish the new normal.

6. *Help team members address concerns with their 'home team'*. While patient care teams are at work, team members are also probably worrying about their own family and friends. Patient care teams are being asked to monitor multiple cases and make real-time adjustments to emergent challenges. However, it is difficult to sustain high-level *vigilance* when distracted by outside pressures.[15] Team members may be worried about bringing home the virus, and may be dealing with financial, childcare or healthcare concerns at home. These stressors are very difficult to combat strictly within a team, and often require attention at the organisational level. During a mission, astronauts also have concerns about their families, which National Aeronautics and Space Administration helps to alleviate by focusing on how they can support astronaut families. Healthcare crisis management teams can try to ease some of these concerns by devoting attention to the needs of team members' families, for example, by identifying where financial, informational or emotional assistance can be offered (eg, about health, food, childcare). We recognise that this is a time of reduced revenues and resource scarcity, and we acknowledge that an organisation cannot eliminate all the fears employees have about their families. But we encourage senior leaders and crisis management teams to look for ways, even small ones, of offering support. One caveat here is to avoid false or empty assurances. Simply saying 'You have nothing to worry about', without anything to support that contention can be counterproductive.
7. *Consciously boost team resiliency. Team resilience* is the capacity of a team to withstand and recover from adversity, and it operates differently from individual resilience.[16] A highly resilient individual can personally withstand pressures but that does not mean they will monitor or support teammates who are under stress. Highly resilient teams take intentional actions to minimise, manage and mend from stressful events. They minimise the impact of stressors by anticipating and preparing for challenging events. As a result, they are less surprised when those events occur, better able to withstand the stress and better equipped to mitigate the risks. Leaders can also help manage stressors by accurately assessing emergent challenges, guiding the team smartly to and from 'normal' and 'emergency' modes and providing timely updates. Team members can boost team resilience by taking actions to mend after a troubling event, which can include learning from the experience and apologising to teammates for any dysfunctional behaviours they may have exhibited in the heat of the moment. When a team incorporates these actions into their way of working, they boost their capacity to handle subsequent challenges.

We are living in extraordinary times. Healthcare teams face unprecedented challenges that they can only overcome by responding, learning and adjusting as a team. Effective teamwork matters more than ever, and so it is imperative to apply the same evidence-driven approach to enabling teamwork and coordination as we do to other medical challenges. We hope the evidence-based tips we provided about teamwork under stress can be used by healthcare providers, team leaders and management to take constructive actions both during and in the early aftermath of the COVID-19 pandemic.

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ORCID iD

Allison M Traylor http://orcid.org/0000-0003-2821-6228

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