Teamwork in a pandemic: insights from management research

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ABSTRACT

Background Amidst the unprecedented outbreak of COVID-19, it is both critical and increasingly difficult for healthcare professionals to engage in the teamwork that will underlie an effective response to the pandemic. The simultaneous need for and challenge to teamwork, though, is not unique to healthcare.

Results Drawing on management and organisational research conducted in healthcare as well as other industries, this article offers an overview of key, and robust, findings that highlight both what teamwork looks like and how to achieve it. I focus on two aspects of teamwork (the coordination of expertise and communication), and I review how leaders can jumpstart them by leveraging mechanisms including framing the work, using communication structures and engaging in leader inclusiveness.

Across healthcare settings, teamwork is critical to ensure the quality and safety of patient care, the well-being of healthcare professionals, and positive financial outcomes for healthcare organisations.[1 2] The requisite teamwork in these settings is difficult in that it involves coordination across boundaries, be they professional-based, unit-based or status-based. Exacerbating that challenge, the set of people working together in these settings is constantly fluctuating due to organisational designs such as shift changes, as well as the evolution of patient needs.[3] Decades of research in the field of management and organisational science suggests that teamwork is best in stable conditions, where people have time to learn how to work together;[4] yet, that stability is simply not possible in most healthcare settings. Individuals with little, if any, history working together must find ways, often quickly, to coordinate care.

As the COVID-19 outbreak develops, healthcare professionals face additional challenges to teamwork. Consider that to cope with rising demand on emergency departments and intensive care units, some hospitals are repurposing spaces to serve as triage areas and are redeploying residents, nurses and other personnel. Around the world, this is happening on a larger scale as teams move across national borders to provide aid in current hotspots. Not only will these individuals lack (recent) experience in the units and hospitals they join, this dramatic shift in the workforce increases the odds that the individuals coming together will not have worked with each other in the past, let alone know one another. Consider that, at the same time, resources are becoming scarce. Natural biases may trigger inward-looking behaviour and a protection of one's in-group, dampening both communication and the coordination of equipment across professional, unit and organisational boundaries—coordination that is critical to navigate an effective response to the pandemic.

These challenges to teamwork are not unique to healthcare. Increasingly in other industries, the way work is organised is becoming more dynamic. In this article, I present an overview of the research on teamwork, drawing on management and organisational research conducted in healthcare as well as other highly dynamic settings (eg, swat teams, firefighting and cyber-security). Rather than a comprehensive review, I organise the literature around two topics. First, I present key, and robust, findings about what characterises teamwork. I focus on the aspects of teamwork that boost outcomes ranging from quality care to organisational learning and individual well-being. I then review research that highlights how to foster that teamwork, focusing on what managerial and clinical leaders—whether in clear positions of authority or not—can do to enhance teamwork in their workplaces.

CHARACTERISING TEAMWORK

Throughout decades of management and organisational research, a variety of dimensions of teamwork have been discussed, theorised and tested. Two features are robust to a range of settings: coordination of expertise and communication.[5]

Teamwork is characterised, in large part, by the coordination of expertise (and other resources). In diverse groups, there is a natural inclination to focus inward and think about people who are like us, in roles like ours. Yet, effective teamwork in healthcare increasingly requires coordination across professions, units and even organisations, as well as up and down hierarchy and status lines.[6] For example, the use of multidisciplinary rounds to coordinate the expertise from multiple professions can improve a variety of health outcomes and reduce prescription errors,[1] as well as expedite patient care.[7] This kind of boundary-spanning with patients, too, has benefits. For example, involving patients in a discussion about postdischarge plans and any issues for which the patient should be watching leads to fewer readmissions.[8]

In addition to spanning boundaries, the coordination of expertise involves what has been called workload sharing. Going beyond job expectations to help and backup others has been found to benefit swat teams and film crews responding to surprises,[9] as well as emergency department teams.[10] Overall, there is a growing acknowledgement that teamwork in highly dynamic, complex settings—those much like the current healthcare context—is perhaps better conceptualised as 'teaming', as there is an

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increasing need to actively adapt and engage in 'teamwork on the fly' in order to learn and perform effectively.[6]

The second aspect of teamwork worth exploring, and one that in part underlies effective coordination of expertise, is communication. Effective communication in the near-term is characterised as the sharing of useful, precise information in a timely manner.[11] Communication within a work group can facilitate greater awareness of other's knowledge, more trust in other's knowledge and better coordination; subsequently, communication can enhance performance.[12] To this end, a variety of guides and checklists have been implemented in healthcare to ensure that the right information is transmitted (eg, in handoffs).[3] However, the timing of communication is also fundamental to effective teamwork. Management research, for example with online innovation and banking teams, has demonstrated that when team members are highly responsive to one another and jointly attend to a task, they more effectively use their resources.[13 14] This pattern is evident in healthcare, too, where performance improves with closed-loop communication, in which the receiver of information interprets and relays it back to the speaker to convey that the message was received.[15] This practice reduces the likelihood of delays due to not hearing a teammate or inappropriate action due to misunderstandings. As the healthcare workforce becomes more dynamic in response to COVID-19, strangers will come together without previously having developed a shared approach to the work; the explicit, timely sharing of information is increasingly important.

Finally, communication can enhance longer term and adaptive performance when it is reflective. When team members communicate about mistakes, share feedback and discuss the potential to improve work processes, they subsequently improve their performance in a variety of contexts.[16] Additionally, reflective communication can diffuse knowledge and innovative work processes across boundaries (even organisational ones) when one entity communicates to another about the effectiveness of new routines or work processes.[17] This applies to the current COVID-19 context, for example regarding attempts to address shortages of personal protective equipment (PPE). While drastic operational steps to improve the sourcing and distribution of PPE are necessary, innovative ways of creating masks or protective shields could be communicated across professional, unit and organisational boundaries to aid the fight against the spread of the disease.

In summary, teamwork can be characterised by the effective coordination of expertise (integration across boundaries and workload sharing) and communication (information sharing that is accurate, timely and reflective). When these two aspects are achieved, teams offer the promise of enhancing care, learning and financial performance.

MECHANISMS TO ENHANCE TEAMWORK

When time is precious, leaders can take brief steps to leverage mechanisms that will foster the teamwork described above. These mechanisms (table 1) include framing the work, using communication structures and practising inclusivity.

Frame the work

Leaders have an opportunity to frame the work at the start of a shift, procedure, or case or even mid-way through working with others to reset the course. One important aspect of this framing is the development of a mutual understanding of the work. The value of developing a shared understanding of the situation has been demonstrated in a range of contexts including healthcare. For example, interprofessional teams in acute care that developed mutual understanding were better able to innovate in their work.[18] In contrast, without this kind of shared sensemaking, teams will be more likely to fail to adapt in a crisis; this failure can be devastating, as it was, for example, when the lack of shared sensemaking contributed to the failure to adapt and the loss of lives in the Mann Gulch fire.[19] In short, leaders who help others to make sense of the unfolding situation can foster adaptation. Moreover, developing a mutual understanding can provide the stability[19] that is much needed in the face of exhaustion and a complex problem.

Leaders also have an opportunity to frame the task in terms of who is (or should be) involved. In highly complex organisations, such as hospitals, leaders would be well served to frame the task as involving a broad network of individuals, thereby shifting attention from oneself or one's unit to the larger system of healthcare providers—bringing into relief what kind of coordination is possible and increasing the likelihood of coordination across boundaries.[3] For example, when inpatient physicians viewed other professions as a part of the overall work of providing care, they were more likely to effectively involve those other professions into the work—communicating with them and involving them in decision-making—which, in turn, enhanced both how much the physicians learnt and overall efficiency of care.[7]

Finally, leaders can make use of roles: the set of expectations that come with a defined position.[20] Roles can serve as a guide to help strangers coordinate, but those roles often have grey areas. This was documented in the early 1990s with flight crews, in which roles were previously thought to be quite clear and rigid,[21] and it holds in healthcare. From hospital to hospital, unit to unit, even attending to attending, expectations of a role can vary. An intern working with one attending physician might face different expectations from week to week as attendings change.[7]

Table 1 Key teamwork mechanisms and recommended actions

Teamwork mechanism	Recommended action
Frame the work	Use beginnings (eg, of teams, procedures, shifts) to: ► establish mutual understanding: help others to make sense of the situation and goals ► build a team orientation: remind others that the work involves an entire network of people from different professions and tenures ► clarify roles and interdependencies: identify who's who, and what is expected of each position
Leverage communication structures	Use communication structures to: ► share information: use structures like handoff guides and closed-loop communication ► learn: use debriefs to identify issues and then make adjustments ► adapt on the fly: for example, use elements from extant handoff structures to create a procedure for handoffs from newly created triage areas
Practice inclusivity	Manage discussions to: ► surface information: ask others (including other professions and those with less power) to speak up ► manage information: pay attention to and reiterate uniquely held information voiced by others

Even within a shift, an attending physician might delegate and then reassume authority over a certain task.[22]

This fuzziness creates a need to discuss roles and lay the foundation for role flexibility. If an individual can see and understand the general expectations that come with her own role and how that fits with others' roles, she will better see how to coordinate her expertise with others as well as how to adapt in the face of an evolving situation. Critically, management research from a wide range of industries including healthcare suggest that role clarity as well as role flexibility and the backup behaviour described above can be jumpstarted at a team's onset. For example, in inpatient teams, when the team's weekly start was used to highlight roles and interdependencies, subsequent teamwork, learning and care performance improved.[7]

Taken together, this research suggests that leaders can use the start of a shift, procedure and week, to frame the work and establish a mutual understanding, create a team orientation and clarify roles. These practices are likely to be particularly important during the COVID-19 outbreak, given the dual conditions of ambiguity and a fluctuating workforce.

Leverage communication structures

Practising closed-loop communication and relying on current structures such as handoff routines should benefit care performance, as mentioned above. Leaders can use these structures to both adapt in the moment and learn. Adaptation is essential when responding to a crisis[19] as old ways of working can be rendered inadequate as the environment shifts.[23] Critically, routines are (and should be) adaptable in that they can evolve over time, and elements of different routines can be combined to create a new approach to the work at hand. For example, research with US Marine Corps and cyber-security teams demonstrated that when elements of past routines were recombined on the fly to develop new approaches to the work, teams were able to effectively adapt to the changing environment.[24] To this end, healthcare professionals can take steps both before and during responses to the evolving COVID-19 outbreak. Ahead of a local surge in patient numbers, healthcare professionals can establish and reinforce their communication norms and routines; for example, leaders can ensure the widespread use of closed-loop communication or best practices for handoffs. Then, amidst responding to the crisis, they can return to those communication structures as resources, using elements of them as fodder for creating emergent ways of organising. For example, handoff guides might be adapted to establish a new procedure for handoffs from a newly created triage area.

That said, the continued or even increased use of extant routines focused on reflection can ensure learning and improved performance over time. For example, 'after action reviews' are used in the military to ensure opportunities to learn from past experiences.[4] Similar in concept, guided debriefs (relative to no reflection or unstructured reflection) enhance subsequent teamwork and performance[25] and have been widely called for and implemented in surgical settings.[16] Debriefs can be used at the end of shifts, too. Though debriefs take time, leaders' inquiry—asking for reflection about what happened and why, as well as how to implement any lessons learnt—can ensure that issues are rising to the surface. In times when achieving resilience at the frontline may have the unintended consequence of masking real organisational issues, leaders must work to surface any signs of vulnerability so that they can address them.[19]

Practice inclusivity

Management research suggests that teams with a high collective intelligence are likely to surface and use relevant knowledge.[26] To this end, leader inclusiveness has been shown to overcome multiple challenges to surfacing information in a range of contexts. The first challenge is a statistical one. Groups tend to focus on commonly held information and fail to recognise uniquely held pieces of information—information held by one or few members—that is important to the work at hand.[27] Even when that unique information is voiced, it is often not trusted because others might not be able to corroborate it.[27] Yet, the presence of uniquely held information is exactly the point of using multidisciplinary teams, in which team members can bring different knowledge and perspectives to the table. Leaders can help their teams to overcome this tendency to focus on commonly held information by engaging in inclusive behaviour. For example, in teams of physicians making medical diagnoses, leaders were found to play an 'information management role' in that they asked fellow teammates more questions about case information and repeated the unique information voiced by teammates;[28] such pooling of unique information has been shown to improve outcomes such as diagnosis accuracy.[29]

There is a second challenge to ensuring that all relevant information is surfaced in that there are also social forces at play. Hierarchy is deeply embedded in healthcare culture, and while hierarchy enables coordination,[30] it also creates a risk that individuals lower in status will remain quiet and withhold important information for fear of speaking out of line.[31] Here, too, inclusive behaviour from leaders can ensure that members feel a sense of psychological safety and are willing to participate.[32]

A word of caution

Teamwork, quite simply, is critical to providing care quality and safety. However, teamwork can have a dark side, too. As the focus on teamwork grows, there is a risk of losing sight of individual well-being. A study in nursing homes found that within a strong teamwork climate, employees were more likely to continue to work while sick rather than stay home,[33] behaviour that poses a great risk when fighting a pandemic. As clinical and managerial leaders work to ensure that any given person in a healthcare system adopts a team orientation, their leadership is also needed to ensure that individual well-being is maintained.

CONCLUSION

Teamwork has been widely studied across a range of industries in the field of management and organisational science. The lessons learnt from this research are now, perhaps more than ever, critical to implement as a massive coordination effort unfolds to fight a pandemic. The present review of management research on teamwork suggests that leaders will be well served to recognise and support key aspects of teamwork: the coordination of expertise and communication. Leaders can use the start of shifts, team meetings or procedures to develop mutual understanding and a team orientation, and to clarify roles. As work unfolds, leaders can also set, model and reinforce communication structures, while using old structures to innovate responses to a shifting environment. Finally, leaders can use inclusive behaviour to foster psychological safety and participation from all professions and levels of the hierarchy. These mechanisms can have powerful impacts on teamwork. Now, as ever, that teamwork is critical.

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