

What is happening under the surface? Power, conflict and the performance of medical teams

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CONTEXT The effect of teamwork on team performance is broadly recognised in the medical field. This recognition is manifested in educational programmes in which attention to interpersonal behaviours during teamwork is growing. Conflict and power differences influence interpersonal behaviours and are marked topics in studies of group functioning in the social and organisational psychology literature. Insights from the domain of social sciences put the ongoing improvement of teamwork into broader perspective.

OBJECTIVES This paper shows how knowledge from the domain of social and organisational psychology contributes to the understanding of teamwork in the medical environment. More specifically, this paper suggests that unfolding the underlying issues of power and conflict within medical teams can be of extra help in the development of educational interventions aimed at improving team performance.

METHODS We review the key social psychology and organisational behaviour literature

concerning power and conflict, and relate the insights derived from this to the team process of ad hoc medical action teams.

RESULTS We present a theoretical framework in which insights into power and conflict are used to explain and predict team dynamics in ad hoc medical action teams.

CONCLUSIONS Power and conflict strongly influence interpersonal behaviour. Characteristics of medical action teams give rise to all kinds of issues of disagreement and are accompanied by complex issues of intra-team power distribution. We argue that how team members coordinate, cooperate and communicate is steered by members' personal motivations, which, in turn, strongly depend on their perceptions of power and conflict. Given the importance of the performance of these teams, we suggest future directions for the development of training interventions building on knowledge and theories derived from social and organisational psychology.

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A CLINICAL SCENARIO

At 02.00 hours, a patient is brought into the emergency department. The on-call resuscitation team arrives. The patient has trouble breathing. The anaesthesiologist inserts a tube and begins mechanical ventilation. Cardiac arrhythmias occur and therapy is given. The intensive care doctor takes the lead. The anaesthesiologist, however, comments upon the doctor's action and suggests setting other priorities. A dispute on how to proceed arises. This causes questions from and agitation among the rest of the team members. One of the team members, a junior resident, makes a suggestion, which is firmly dismissed by the intensive care doctor. The atmosphere becomes tense, team members no longer speak up, and the quality of the resuscitation is questionable.

INTRODUCTION

There is growing attention in the medical literature on methods of improving team performance.¹⁻⁷ Teams have the potential to increase productivity, adaptability and creativity,⁸ and teams are able to solve more complex, innovative and comprehensive problems⁹ than are individuals working alone. However, despite their potential, many teams fail to meet expected outcomes.¹⁰ More precisely, there is evidence of the significant impact of human factors on team processes, such as communication and cooperation, and on the realisation of the full potential of teamwork in the medical environment.^{1,3} This article will focus on two main reasons why teams may fail, both of which refer to internal team dynamics, specifically to power differences and conflict.

The clinical scenario described at the start of this paper demonstrates that power and conflict issues may strongly influence how team members behave while interacting with one another during performance. These interpersonal behaviours affect medical team processes, such as communication and cooperation, and thereby the outcomes of patient care. Characteristics of medical action teams and tasks, such as a multidisciplinary composition, working under time pressure, and the highly interdependent nature of various tasks, give rise to many issues, including some that are accompanied by complex challenges to the intra-team balance of power. Moreover, as these teams are often composed on an ad hoc basis, membership varies and individual experiences in former tasks and former work relations may raise expectations of power and conflict in

the newly composed team and task context. We will clarify how these expectancies may influence group processes such as communication, cooperation and actual conflict during teamwork.

In this paper, we review key research on power and conflict in teams from the literature on social and organisational behaviour. To show how this knowledge is applicable to the medical field, we present a theoretical framework specifically oriented toward ad hoc medical action teams. Finally, we explicate how the understanding of underlying issues of power and conflict can assist in the development of educational interventions aimed at improving team performance.

Conflict in teams

In contexts in which people work together, conflicts are bound to arise. Because conflict is inevitable in work teams,¹¹ it is important to understand how it affects team processes. Conflict, in general, is defined as the perception by the parties involved of differences, discrepancies and incompatible wishes.¹² Typically, conflict is considered a negative social process, which is confirmed by empirical evidence demonstrating negative consequences for team performance.^{13,14} These findings suggest that team members become distracted because of conflict within their team, and that this impedes the processing of information relevant to task execution.

However, the empirical findings are inconsistent. Some empirical studies have found that conflict can improve team performance. These studies support the hypothesis that conflict leads to the sharing of viewpoints and increased discussions, which, in turn, improve team decision making and, consequently, performance.¹⁵⁻²¹ One important step in research that aims to understand how and when conflict may sometimes benefit outcomes of teamwork is to distinguish what the conflict is about.^{16,22} Three types of conflict can be distinguished. Task-related conflicts are disagreements in the team regarding ideas and opinions about the task. Referring to the introductory example, the intensive care doctor and the anaesthesiologist may disagree about the medication the patient needs. By contrast, the discussion between the doctors in the example may also represent an expression of a personality clash that arises as a result of incompatibilities relating to personal issues. This is an example of relationship conflict. A third type of conflict is process conflict, which refers to logistical or delegational issues, such as when doctors disagree about who is responsible for preparing necessary

equipment and transporting the patient to the diagnostic ward. Process and relationship conflicts are generally found to be negatively related to group outcomes.^{13,14} Compared with task conflict, these types of conflict are more strongly associated with negative emotions (e.g. anger and frustration, and negative affect), which may overwhelm rational reasoning ability.^{23,24} Task conflict of moderate intensity may contribute to effective decision making and group performance.^{16,22,25} Discussing different opinions about medication among members may generate constructive ideas and thereby enhance patient treatment. Task conflict may also contribute to learning,²⁶ specifically in teams that face complex, non-routine tasks, as do medical action teams.²⁷

In the effort to understand and explain the effects of conflict in work groups, research on asymmetry in intra-group perceptions of conflict is growing. Conflict asymmetry refers to the existence of different perceptions among group members regarding the amount of conflict in their work group.²⁸ For instance, a disagreement about medication may be perceived as a serious conflict by the nurse, whereas the resident may not perceive there to be conflict at all. Recent empirical results suggest that this asymmetry of conflict perceptions within teams is detrimental to group functioning.²⁹ It is better for all members to agree on a high level of conflict than to disagree about whether there is or is not conflict^{28,30} because resolving the conflict can only commence if team members at least agree that a problem exists. We will elaborate on why medical action teams are likely to suffer from asymmetric perceptions and how these may further complicate team processes.

Differences in power may also have an important influence on team functioning. Power is related to conflict. The resolution or maintenance of conflict often involves power and disputes over the relative positions of power and the social hierarchy among the individuals within a group may cause conflict.

Power in teams

Like conflict, power is a central concept in the social science disciplines. Power is the relative ability of an individual to control or influence others.^{31–34} An abundance of research confirms that social perceptions and behaviours are influenced by individuals' respective levels of power (for a review, see Keltner *et al.*³²). Research on power in group settings shows that team effectiveness may be influenced by the ways in which a powerful team member uses his or her power.³⁵ Intra-team power differences may inhibit

team members from sharing or combining task-relevant knowledge through interaction with one another.^{36–38} Moreover, there is empirical evidence that the power structure within a group may affect interactions by influencing the conflict resolution abilities of the group.³⁹ For example, a disagreement about the task may be used by team members to reinforce their personal positions of power, rather than prompting constructive discussion to gain common insight. An interesting finding is that when group members disagree about the intra-team distribution of power, the team is more likely to experience process conflict that, as outlined earlier, may hurt performance.⁴⁰ This may be explained by the fact that without a clear power distribution, team members may engage in competition over power. Therefore, the composition of a team in terms of power may affect the development and management of intra-team conflict, as well as other team processes.

POWER AND CONFLICT IN MEDICAL ACTION TEAMS

As in teams in general, teamwork in medical teams is influenced by power differences and conflict.^{41–43} We focus here on medical action teams such as resuscitation, trauma and operating room (OR) teams. These teams are challenged to perform urgent, unpredictable tasks, with major consequences. In all these circumstances, performance should be reliable and the prevalence of error should be low because the consequences of errors may be life-threatening.⁴ Hence, negative disturbances of teamwork by issues of power and conflict should be prevented.

However, these action teams feature a number of characteristics that may give rise to many instances of disagreement and a complex intra-team balance of power. Firstly, medical action teams are multidisciplinary in nature. Team members have different backgrounds of knowledge and expertise, but they work together with high levels of interdependence on a common task. Past research on functional diversity in teams has underscored the double edge of diversity: it can enhance team decision making and performance because it allows for an increased exchange of information, but it may raise the possibility – as a result of processes of categorisation and intergroup bias^{44,45} – of destructive conflicts about, for instance, patient management or personal argument.^{46,47}

Secondly, multidisciplinary may entail complex hierarchical structures in the team. Team members from different disciplines (e.g. surgeons and anaesthesiologists) have a shared professional

responsibility, but it is unclear who is in charge. Leadership is dynamic in these teams⁴¹ and actually powerful team members are not necessarily the formal keepers of power. Think, for instance, of a young, inexperienced doctor who works with an experienced nurse. It is therefore evident that power distribution within the team is complex, may give rise to conflict over status⁴⁸ and may also influence how effectively conflicts are managed or resolved.³⁹

A third characteristic of medical action teams is that they perform their tasks under time constraints. Working together under pressure may lead to disagreements about issues of logistics and delegation: what has the highest priority? Who is responsible for what? How should the team proceed? Empirical evidence shows that a moderate level of this type of conflict (process conflict) when teams are forming can be beneficial because it helps members to identify roles, procedures and responsibilities.⁴⁹ However, this benefit is questionable in medical emergency situations in which roles, procedures and responsibilities must be completely clear at the moment the team forms because any loss of time may be detrimental to the patient.

Finally, a distinguishing feature of medical teams compared with teams in general is that medical teams are formed on an ad hoc basis. This characteristic may lead, certainly in larger teaching hospitals, to a relevant alteration of team composition which may have significant consequences. We will explain how the ad hoc formation of medical action teams adds an extra dimension to how the team processes are affected by conflict issues and power differences.

THE AD HOC FEATURE OF MEDICAL ACTION TEAMS: EXPECTATIONS OF POWER AND CONFLICT

A typical and identifying characteristic of medical action teams on which we would like to focus is the ad hoc composition of team members. Teams often exist only for the duration of the task and are then split up. One important way in which ad hoc teams may differ from well-defined teams may refer to the greater effort it takes for an ad hoc team to achieve a shared understanding of the task domain and the actions required. Research suggests that when team members have a shared understanding of the situation – known as a ‘shared mental model’ in the literature – team performance benefits.^{50,51} In civilian aircrafts, in which flight crews are also ad hoc, training of personnel ensures that task-related procedures and knowledge will be shared across members when they

gather for a new task. Such training programmes derived from practice in aviation have been adopted into the medical field over the last decade.^{1,52} Shared mental models can refer to several types of knowledge.⁵³ In addition to knowledge about the task and procedures, a mental model of teamwork-related aspects has been recognised.⁵¹ This team-based mental model contains members’ information concerning attitudes, preferences, strengths, weaknesses, and so forth, of team mates. Such knowledge is essential for team effectiveness because it allows team members to adapt their behaviour according to how they expect their fellow team members to behave.⁵⁴ In ad hoc medical action teams, professionals with various levels of hierarchy, experience and expertise are put together to accomplish a newly presented task. Furthermore, team members vary in the levels of familiarity they have with one another. People may know each other well because they have worked together on a regular basis in comparable or complete different circumstances. However, team members may also have hardly any or no previous experience of working together. Pre-existing work relations in another team and task context may help or hinder group performance.⁵⁵ Given that medical teamwork is characterised by issues of power and conflict, team members who meet in a team on an ad hoc basis may have expectations regarding the distribution of power, and conflict, based on prior experiences (or based on stereotypes when prior experiences are non-existent).

Pre-existing perceptions of power and conflict

Power is a property of relationships between people, rather than a property of an individual.⁵⁶ As such, power exists within the interpersonal context of a team. We use the term ‘power’ here in the broadest sense to encompass power that may be derived from various sources,⁵⁷ such as an individual’s position within the team or organisation, his or her expertise, and his or her personality traits, such as friendliness or aggressiveness. Although the power distribution in a multidisciplinary interdependent team is already complex and not static, the ad hoc nature of medical action teams may intensify this complexity. As the composition of ad hoc teams changes, power relations change accordingly, and new power distributions may occur. In some team and task settings a given member may feel powerful, whereas, in others, he or she may not feel powerful at all. For example, a team member can have a high sense of power because he or she feels most senior in that team, but in another team and task context, that individual may sense less power because he or she is working with a

team member who is very experienced with the patient problem in question. In sum, we state that at the start of a new task, team members have expectations of the dispersion of power in the newly formed team. We call these expectations 'pre-existing power perceptions' (PPPs) and consider them to define the sense of power individual team members perceive themselves to have in relation to their team mates at the start of a new task, in the actual team and task context. These PPPs result from the individual's personal history, and his or her histories with different team members, in different team compositions, doing different tasks.

In addition to the PPPs, team members may have expectations regarding potential conflicts they might encounter with individual members in a newly composed ad hoc team with a newly presented task. We can view teamwork in the context of a repeating input–process–output framework. Various feelings, beliefs, thoughts and values can emerge through experiences caused by various interactions during teamwork.^{46,47} These experiences may be inputs for the next team process.⁵⁸ Hence positive and negative experiences will affect social behaviour in a subsequent team and task context. These experiences can serve either as a basis for the development of a more cooperative relationship or as the starting point of conflict in a subsequent team task. Pondy⁵⁹ describes conflict in separate phases and recognises the 'aftermath' of conflict as a result of conflict. This 'aftermath' is the legacy of conflicts that are suppressed but are not resolved and may represent the basis of new conflict in a new episode of teamwork. Even if unfamiliar team members meet in a team setting, they may have presumptions about cooperation as a result of stereotyping others.^{46,60,61} In line with this, we argue that, in addition to PPPs, team members have expectations of their team mates in terms of conflict, which we refer to as 'pre-existing conflict perceptions' (PCPs).

In sum, because of the ad hoc nature of medical action teams, team members will have pre-existing perceptions of intra-team power and conflict relations based upon former work experiences and relationships with different team members, in different team compositions, in different task contexts. Classic psychology work has suggested that such pre-existing perceptions guide human behaviour.⁶² People orient themselves to the world according to their expectations and evaluations. This means that behaviour is influenced by both the expectation that certain behaviour will have particular consequences and the degree of affect, positive or negative, toward

the behavioural outcome. Given that power and conflict both have strong motivational impact, it is likely that pre-existing perceptions of certain intra-team power and conflict relations affect the dynamics in teams. In the next section we will explain how.

THE IMPACT OF PPPS AND PCPS ON ACTUAL TEAM PROCESSES

Wittenbaum writes: 'Simply having the ability to share information does not guarantee that members will do so.'⁶³ What, how and to whom information is dispensed are influenced by personal motivations.⁶⁴ Perceptions of power and conflict may affect processes that are important to the disclosure of necessary information during medical teamwork. The perceptions that already exist when members of medical action teams gather may have similar impact. Interpersonal behaviours, such as seeking help, speaking up and the practice of using different perspectives, are important for intra-team communication and coordination. We will clarify how these behaviours may be influenced by perceptions of power and conflict.

Help-seeking behaviour within teams is influenced by perceptions of power. Research shows that between individuals of unequal status (such as a doctor and a nurse), less help-seeking behaviour manifests.⁶⁵ Help-seeking behaviour enhances problem-solving capacity,⁶⁵ is associated with a higher quality of strategic decision making,⁶⁶ and is ultimately a step to higher performance.⁶⁷ Proactively seeking help from others involves a 'social cost' because the help seeker may perceive that he or she will appear incompetent, dependent and inferior to others.⁶⁸ Thus, help seeking may be facilitated by a psychologically safe environment. In this way, conflict perceptions can also limit help-seeking behaviour as conflict perceptions may be associated with a decrease in trust and respect²³ and therefore may reduce the level of psychological safety experienced by an individual.

Additionally, the practice of speaking up within teams may be obstructed by members' conflict perceptions because the act of freely voicing concerns and ideas also requires a psychologically safe environment.³⁷ Large power differences, such as those between doctors and nurses, or seniors and juniors, may also adversely affect the extent to which members with lower levels of power feel safe in voicing their concerns and ideas. Speaking up is important for decision making in interdependent teams. Group members must share ideas, knowledge and insights so

that multiple viewpoints can be considered.^{2,69,70} In a safe environment with high intra-group trust,⁷¹ differing viewpoints may be exchanged in a constructive debate and improve the quality of outcome.^{15,16}

Finally, perspective-taking behaviour may be influenced by perceptions of power and conflict. Perspective taking is defined as the process of imagining the world from another's point of view.⁷² Persons with a high sense of power are less likely to take into account the possibility that another person may not have all of the knowledge relevant to a particular context.⁷³ This is of particular importance in medical action teams as smooth coordination is facilitated if team members anticipate the actions and needs of colleagues and dynamically adjust their own behaviour accordingly.⁷⁴ Furthermore, high-powered individuals are less accurate in detecting the emotional states of other people.⁷³ They may therefore be less accessible and receptive to a team member who hesitates to speak up with important observations. Trying to understand the view of another person decreases negative conflict effects⁷⁵ and promotes collaboration to create solutions that meet the needs of all parties.⁷⁶ In addition, research shows that perspective taking improves the quality of communication, enhances interpersonal problem-solving ability, and lowers interpersonal aggression.⁷⁷ Conflict perceptions may also have a negative effect on perspective-taking behaviour within teams because of the negative emotions often associated with conflict and negative affect.^{78–80} Perspective-taking behaviour is enhanced by positive affect,⁸¹ positive mood and liking.^{82,83} In sum, we propose that perceptions of power and conflict have a motivational effect on important communication and cooperation behaviours and therefore may help or hinder teamwork.

What does this mean for the medical field? In this arena, communication and coordination are acknowledged to be extremely meaningful to team performance. Speaking up, and help-seeking and perspective-taking behaviours are recognised as important to interpersonal communication and coordination in medical action teams.^{5,6,84} Because of the ad hoc nature of medical action teams, team members have pre-existing perceptions of power and conflict that have evolved as a result of their former experiences. These perceptions underlie expectations regarding each other's interpersonal behaviours⁸⁵ that influence social interactions.⁸⁶ Imagine the resident in the clinical scenario, who is firmly put aside by the senior doctor. In the next team setting, he or she may remain silent rather than speaking up, thus inhibiting open communication with a senior

colleague. This example demonstrates how events in the current task may add to a team member's personal pre-existing perceptions of power and conflict, and thus may amplify the effects of conflict and power differences in future tasks.

Thus, the more team members perceive a high potential for conflict (high PCPs) and the more power differences they perceive (high or low PPPs) in an ad hoc medical action team, the less effective intra-team communication and coordination processes will be because of the inhibition of speaking up and help-seeking and perspective-taking behaviours in team members. Managing or resolving conflicts in such teams can be imagined as a challenging task. However, a real disruption created by conflict may take place when team members' pre-existing perceptions about the power distribution and conflict potential are not aligned. We will elaborate on this in the next section.

Asymmetry of pre-existent perceptions

Despite the common assumption that group members hold similar perceptions, team members perceive their team interactions differently.⁸⁷ Research suggests that team members can differ in their perceptions of both the distribution of power within the team³⁹ and the level of intra-team conflict.^{28,30} One team member may feel that he or she is the most powerful person in the team, but may be perceived as having equal or even less power by others. Thus, members may have discrepant views of the power distribution within the team. Subsequent to these differing perceptions of the distribution of power, team members may perceive the same situation differently in terms of conflict. Depending on the personal beliefs, thoughts and values derived from their former experiences, the expectations of team members may differ in terms of how they imagine that conflict will manifest. We refer to these discrepant PPPs and PCPs as being asymmetric.²⁸ Thus, members may have asymmetric expectations in relation to both the distribution of power (PPP) and conflict (PCP). This asymmetry is even more likely to disrupt effective team processes, particularly if an issue of disagreement emerges in the actual task.

To explain the effect of asymmetric PPPs, picture the intensive care doctor in the clinical scenario. Imagine he views himself as the formal leader of this team and, in line with this view, he takes the lead and indicates how to proceed with the task at hand. For contrast, picture the anaesthesiologist and imagine he overrules this leadership action because he feels that he is

more senior and experienced. When team members have different expectations of the intra-team distribution of power (i.e. asymmetric PPPs), a high level of competitiveness within the team may result.^{88,89} Moreover, team members with a high sense of power over one another may engage in a struggle over power.⁴⁸ Arguing over a disagreement may then lead to a change in power positions and a potential change in power positions can evoke a physiological threat response.⁹⁰ If people with power feel threatened, they may become defensive and dominant.^{89,91,92} Expressions of defensive and dominant behaviour may affect the intra-team atmosphere and psychological safety.³⁷ In OR teams, it is found that in response to tension in communication, team members may react with mimicry or withdrawal behaviour and thereby intensify conflict.⁹³ Confirmatory research suggests that asymmetric power perceptions within management teams may lead to conflicts that detract from performance.⁴⁰ Consequently, in medical action teams, the extent to which the distribution of power is perceived as asymmetric by the ad hoc team is likely to affect processes of conflict in the actual task. To be precise, the more asymmetric PPPs are, the more a disagreement that occurs in the task at hand may escalate conflict, thereby leading to negative consequences for team performance.

To examine the effect of asymmetric PCPs, let us take another look at the intensive care doctor and the anaesthesiologist in the example clinical scenario. Depending on their previous experiences, they may expect to encounter different types of conflict (task-, relationship- or process-related) of different levels in the new team and task setting, which may result in dissimilar perceptions of an actual disagreement by several team members. Past research on conflict mostly ignores the possibility that different parties involved in conflict may perceive the conflict differently in terms of its level.^{13,14} However, more recent literature on the effects of asymmetric conflict perceptions shows that team processes and performance are negatively affected if team members have differing perceptions of the actual conflict.^{28,29,94,95} Imagine that the intensive care doctor, as a result of his particular PCPs, perceives a high level of conflict in the current team, but the anaesthesiologist perceives himself as merely addressing an extra option to proceed. An individual who perceives more conflict than others may be led to expend energy on discussing, resolving or ignoring the conflict,^{16,96} rather than spending time and effort on performance-relevant tasks. Likewise, when a team member perceives a higher level of conflict than other members, he or she is often less receptive to the ideas

of other group members and therefore communicates less, which then interferes with constructive group processes and individual performance.⁹⁷ Finally, in addition to perceiving different levels of conflict, team members may experience different types of conflict. What if the encounter in the example scenario were to be coloured by expectations of personality differences by one of the two doctors? The emerging discussion might then be perceived as a straightforward task conflict by one, but experienced as a (much more destructive) relationship conflict by the other. A recent meta-analysis¹⁴ found that a high association with relationship conflict frustrates the positive effect that moderate task conflict can have on performance. Therefore, we suggest that the more asymmetric PCPs the members of a medical action team have, the more a disagreement in the actual task may be perceived asymmetrically by team members and the more this conflict may be expected to negatively influence team performance.

CONCLUSIONS AND PERSPECTIVES ON EDUCATION

Using recent literature on the roles of power and conflict in teams, we have explained how power and conflict may negatively affect teamwork processes and the performance of medical action teams. A theoretical framework for unravelling the underlying motivations and perceptions of medical professionals working in ad hoc teams has been presented. We theorise that the ad hoc characteristics of medical action teams may complicate the issues of power and conflict that already exist as a result of the multidisciplinary, highly interdependent, and unpredictable and urgent tasks these teams undertake. We have outlined how the fluidity of team composition in these ad hoc teams may cause their members to arrive in the team with pre-existing perceptions of power and conflict, which play a role under the surface of the newly composed team, and therefore may affect team dynamics and outcomes. We argue that, if individual team members sense substantial differences in levels of power and potential for conflict, this may affect their motivation to speak up or to engage in help-seeking and perspective-taking behaviours in the actual task, which may, in turn, impede communication and coordination processes. We also argue that, if intra-team power distribution is unclear and team members have differing conflict-related expectations as a result of the asymmetry of these pre-existing perceptions, a simple disagreement in the actual task may deteriorate to serious conflict. Although these arguments are empirically supported in the social and organisational psychology literature,

further research is necessary to prove the relevance and accuracy of this framework in medical practice.

Although it is interesting to theorise and gain more knowledge on how team processes in medical action teams are affected, the real challenge lies in using this understanding to determine how negative effects of power and conflict issues can be diminished. A first direction for research on interventions is to develop and introduce a briefing for medical action teams, in line with the existing preoperative briefing.⁹⁸ The preoperative briefing or checklist for surgical teams was originally introduced for reasons of patient safety in order to prevent the occurrence of rare but terrible incidents such as when surgery is performed in the wrong limb of a patient.⁹⁹ The checklist is a brief (< 1 minute) procedure carried out by the OR team and demands that they check critical details before the start of surgery. It requests team members to share information on the task and procedure related to the specific patient case. The act of completing the checklist helps the team to build a shared mental model of the actual medical task and thus reduces the potential for task and process conflicts.^{28,51} We propose that the framework presented here should be used to develop a supplemental procedure to build a shared mental model of team member characteristics. The existing procedure includes an introduction to each participant so that all team members understand who each member is and his or her roles and capabilities. This may already (partly) clarify the intra-team distribution of power. In addition, a mini procedure could be incorporated with the intent of providing a safe atmosphere at the start of teamwork. For instance, an introduction that explicitly announces that, in this team, 'novices and juniors can feel free to speak up' and that 'even seniors and leaders may need help' may be useful. It would be interesting to establish whether such a mini procedure on team interaction can help team members to build a shared mental model of intra-team attitudes on psychological safety and can contribute toward attenuating the effects of high and asymmetric pre-existing perceptions of power and conflict.

A second direction for research is to introduce a debriefing procedure to take place within the operational environment of medical action teams after a patient case has been concluded.¹⁰⁰ This debriefing could take the form of a standardised intervention tool for guided reflexivity^{101,102} that induces team members to reflect on the completed task, as well as on the teamwork-related aspects of their performance in a structured manner.¹⁰³ Such organised perfor-

mance feedback provides team members with more accurate and shared mental models for both the task at hand and teamwork.¹⁰³ In the context of ad hoc teams, in which the composition of the team is inherently subject to continual change, a structured debriefing that includes reflection on team interactions may mitigate the negative effects of experiences of conflict and power-related battles that occurred during the case. The hypothesis that such a debriefing may diminish the influence of negative experiences on pre-existing perceptions for a future task is an interesting topic for further research.

Finally, a direction for further research in education concerns the development of basic team training programmes.⁵² In addition to briefing and debriefing, this basic training should be focused on teaching medical professionals about the motivational impact of interpersonal behaviours that reflect perceptions of power and conflict. These insights might contribute to a better understanding of the purpose and potential benefits of the briefing and debriefing tools. Furthermore, the training should provide tools through which professionals can reflect on and become familiar with the insights and skills they need to handle the personal power- and conflict-related issues they encounter in daily practice.¹⁰⁴ Such knowledge might better prepare professionals to acquire non-technical competencies such as leadership, communication and cooperation skills that are commonly emphasised in existing medical simulation team training programmes.^{52,105,106} In addition, such basic training might contribute to the generalisation of the non-technical skills that are acquired in a specific team setting.^{107,108} In a recent review on health care team training, by Weaver *et al.*,⁵² the authors found that targeted competencies adopted by trainees within a specific training team may not be transferred beyond that specific team. As this paper has elaborated, the fluidity of team membership in ad hoc action teams may have a substantial impact on how team members interact in different team configurations. Therefore, the intended basic training should be aimed at enabling individual team members to manage the effects of the various power- and conflict-related issues with which they are confronted in different team contexts. It would be interesting to explore whether such training helps professionals to acquire teamwork skills that are transportable across a variety of team configurations.

In conclusion, extending developments in medical practice and education with research programmes that build on the knowledge and theories of social and organisational psychology is likely to contribute

to the improved performance of medical action teams. Insights into power and conflict from the social sciences domain may help to elucidate team dynamics in the medical environment and to clarify what is happening under the surface of the medical action team.

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