Human factors of incident management teams

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In a world where emergencies and disasters are escalating and climatic events are growing more volatile, the necessity for a high-performance incident management team (IMT) is not just important, it's critical.

IMTs are the frontline in controlling, coordinating and commanding to mitigate the effects of these incidents. The team's high-quality intelligence and analysis transform them into a predictive and proactive force, playing a pivotal role in incident management. These teams can be and are often composed of highly skilled individuals who possess a diverse range of expertise and are trained to handle a wide array of incidents. They are also drawn from disparate parts of organisations or agencies (local, state and interstate) such as the case for the summer bushfires in New South Wales in 2019–20. Establishing a high-performance IMT is about efficient systems, organisational doctrine and training. It is also about creating environments where leaders and individuals can positively interact. This is achieved when the leadership and organisational systems and processes foster an culture that values and embraces human factors, principles and practices in an ethical way.

Introduction

IMTs are often formed from disparate groups of people who may or may not have worked together before. Developing a cohesive and efficient team is more than training and organisational systems; it requires embracing human factors to understand how people interact with devices, products and systems. When applied to the interaction of people, it meets their psychological needs so that an organisation's leadership, inter-relationships and systems interrelate to create a productive, innovative and stable work environment.

An ethical culture in which people thrive

Culture within an organisation comes from leadership, systems and inter-relationships based on 3 psychological needs: autonomy, relatedness and competence. These needs create an environment for beneficence.[1] The term 'beneficence' covers ethical and moral behaviours and includes humanity and promoting the good of others. In plain language, the goal is to benefit or promote the good of others.[2]

The 3 needs as described by Ryan and Deci (2000)[3]:

- Relatedness: IMT members need to feel a sense of belonging and attachment to other people. To achieve this, they need to be included and connected. Within an ethical culture, people are more likely to embrace shared values and beliefs and display behaviours that align with the ideals and expectations of the team.

- Competence: IMT members usually have mastery of their assigned functional area and should be considered competent or, if new, mentored to grow their confidence. By providing positive feedback and an opportunity to learn, members will feel they have the knowledge and skills needed for success and are more likely to be proactive and mission-focused.

- Autonomy: IMT members need to feel in control of their roles and enabled to undertake them. This sense of being able to take action that will result in real change

plays a significant part in helping people feel self-determined and empowered within constraints such as policy, procedures and training.

Individuals contribute to establishing mutual trust within the team. According to Tracy (2016),[4] there are 3 fundamental components necessary for trust in ethical and reliable relationships:

- Honesty - demonstrated through transparency and openness. An honest leader is willing to consult, collaborate and communicate (speak and listen) to ideas and feelings. An honest leader follows through on commitments.
- Integrity - is a leader's moral principles and willingness to speak up about actions that are not morally, ethically or organisationally suitable. Integrity is also demonstrated by work ethic and conduct that would be deemed professional.
- Loyalty - is demonstrated through trust and standing by supervisors and subordinates. Loyal leaders give and expect loyalty in return. Loyalty is the most fragile of elements for an ethical leader; it is complex to gain and easy to lose.

These elements are central to establishing an ethical culture. It is important to note that honesty, integrity and loyalty garner trust. Trust is lost when a leader is dishonest, lacks integrity or is disloyal. To lose one of the foundation elements is to lose all of them.

Human factors principles and practices

In 2003, Transport Canada produced an excellent guide on human factors for aircraft maintenance personnel.[5] Aspects have been adapted to the emergency management environment:

- Reduce error: Adopt a process where errors and failures are regarded as reflective learning opportunities. This builds honesty and relies on integrity and loyalty. This approach encourages identifying and reporting to prevent unforeseen or negative consequences from developing. It helps to minimise risk and enhances systems and practice development.
- Increase efficiency: Have a culture and practices that foster inclusiveness, recognition and competency development to enable personnel to optimise performance and their efficiency.
- Maintain inclusive and open communication: Communicate clearly and transparently as shared information builds shared situational awareness and understanding. Clear, concise and unequivocal language and direction maintains consistency and priority of effort. Communication provides new information, positive or negative and is added to the environment

as soon as possible so consequence management can occur. This increases responsiveness and allows for proactive rather than reactive conduct.

- Manage fatigue: Promote organisational and personal responsibility to monitor and manage personnel fatigue. Tiredness affects decision-making and performance and, even the most efficient roster, individuals will have different needs.
- Situational awareness: Leaders and team members should be vigilant to the effects of the operations and demands on team members and balance work wherever possible. Situational awareness includes knowledge about the event, the personnel and their physical and mental needs.
- Manage stress: Balance work across personnel and do not assuming immutable structures help reduce stress (mainly when one functional area is overstretched and another is not). High stress levels impair cognitive function. Another critical driver of stress is reactive operations. Gaining tactical and operational advantage allows time for personnel to complete tasks and reduces the pressure of failure.
- Manage complacency: Monitor personnel and develop an effective work tempo to mitigate overconfidence and allow time to check tasks and mentor. Overconfidence can lead to oversight and errors. Leaders using critical thinking and making evidence-based decisions can avoid many of the biases that can emerge through overconfidence.
- Lack of knowledge: Use fact-checking, local knowledge and other means to validate data into actionable information. This reduces incorrect, old or bias-driven information as teams often operate with incomplete or insufficient knowledge, which can result in errors.
- Minimise distraction: Ensure only necessary personnel are in the IMT and establish rules for discussions, control noise volume in the IMT centre and focus on relevant details to allow personnel to remain attentive and situationally aware.
- Promote teamwork: Promote inclusion and competency that enable and empower personnel. Champion trust and ethical conduct to create high-performance teams as effective teamwork is crucial for safety.
- Buffer external pressures: External pressures affect critical thinking and decision-making effectiveness. This may require using evidence based argument or contingency planning to manage. 'Delay is better than disaster'.[6]
- Manage resources: Inadequate resources hinder performance. Incident control centres may sometimes be affected by a lack of internal resources or system failures and external resources needed to achieve a mission. Solid and resilient teams adapt and can

overcome such shortfalls. Highly fatigued and stressed teams with ineffective leadership will struggle to remain competent, capable and effective. Planning and execution early to ensure incident control centres are well resourced before events limit the ability to garnish resources within limited timeframes.

- Promote positive norms and culture: Establish a positive culture through trust, effective leadership, promoting supportive behaviours and reduce negative behaviours to maintain buy-in from personnel. The organisational culture influences team behaviour.

- Promote positive assertiveness: Monitor and provide positive feedback and guidance to create effective assertiveness so that decision-makers feel supported and empowered. This encourages positive assertiveness and decision-making. Failing to speak up or being unnecessarily authoritative can lead to personal and operational problems. Micro-managing and excessive control over personnel can create doubt and slow information flows and the conduct of the operations. This will have a detrimental effect on tempo or operations and synchronicity of effort.

Conclusion

By considering human factors, organisations can create safer and efficient environments for everyone involved. How people interact, as well as the systems and culture that create a positive environment, are at the heart of a high-performance IMT.

Endnotes

1. Martela F, Tapani J, and Riekki J (2018) 'Autonomy, Competence, Relatedness, and Beneficence: A Multicultural Comparison of the Four Pathways to Meaningful Work', *Frontiers in Psychology,* 9. https://doi.org/10.3389/fpsyg.2018.01157

2. Beauchamp T (2019) 'The Principle of Beneficence in Applied Ethics', *The Stanford Encyclopaedia of Philosophy* (Spring 2019 Edition), Edward N. Zalta (ed.). Stanford Encyclopaedia of Philosophy website https://plato.stanford.edu/archives/spr2019/entries/principle-beneficence.

3. Ryan R and Deci E (2000) 'Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being', *American Psychologist,* 55(1):68-78. https://psycnet.apa.org/doi/10.1037/0003-066X.55.1.68

4. Tracy B (2016) 'The Importance of Honesty and Integrity in Business,' *Entrepreneur,* Dec 2016. Entrepreneur website www.entrepreneur.com/leadership/the-importance-of-honesty-and-integrity-in-business/282957.

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6. Gambino M (2010) Q and A: Capt. Chelsey "Sully" Sullenberger. *Smithsonian Magazine.* Smithsonian Magazine website www.smithsonianmag.com/science-nature/q-and-a-capt-chesley-sully-sullenberger-63542623.