



## Authentic Leadership and Safety Outcomes

***“Because Authentic Leaders create an environment of psychological safety through positive role modelling and trust, their teams create a stronger safety climate with fewer incidents, accidents and near-misses.”***

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*The quality and value of the  
outcomes we get at the end,  
are a direct result of the quality of  
thinking we do  
at the beginning ...*

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## 1. Executive Summary

*“We cannot solve our problems with the same level of thinking that created them.”*

Albert Einstein

Quite a lot has been written about how positive safety climates lower the risk of accidents and incidents across a variety of contexts, such as the oil industry and nursing<sup>1-5</sup>. However much less has been written about positive Fire Safety Climates; how they are created and the characteristics of those people who are most likely to create them.

This research report is the result of the 2023 IFSM Research Scholarship Award which was designed to investigate the research hypothesis on the front page. That is, the links between Authentic Leadership<sup>6-10</sup>, Psychological Safety<sup>11-17</sup>, Safety Climates<sup>5,18-20</sup> and subsequent Safety Outcomes, with the hypothesis that Authentic Leaders create an environment of psychological safety through positive role modelling and trust. In turn this facilitates the creation of a stronger safety climate by their teams which subsequently results in fewer incidents, accidents and near-misses.

For the purposes of the research we are using the following definitions. Authentic Leadership<sup>6-10</sup> can be described as, *“Doing the right thing because it’s the right thing to do, regardless of the personal cost,”* combined with the statement that, *“Driven by passion, driven by purpose, Authentic Leaders combine personal courage with ethical decision-making to deliver successful, sustainable and meaningful results.”*

Psychological Safety<sup>11-17</sup> is the feeling that it’s ok to speak up, speak out or to take a risk; that your manager and colleagues ‘have your back’. Psychological safety is an evolving dynamic; for example, sometimes we can feel psychologically safe within our teams, but not within our organisations or vice-versa.

Safety Culture can be described as, *“The shared perceptions of employees about the safety of their work environment, ... providing the background against which day-to-day tasks are*

*performed*<sup>5</sup>". Safety Climates<sup>5,18-20</sup> are the specific actions and behaviours that create the safety culture. Organisations with strong safety climates have been shown to have fewer employee injuries<sup>18</sup>. Safety Outcomes are those measurable elements of safety climate and culture that relate to injuries, accidents and near-misses included within safety records.

The specific elements of these 4 areas are shown in Table 1 in Section 4: Methodology. In summary, the research process involved 175 IFSM Members who completed a 4-part questionnaire via Survey Monkey, the results of which were statistically analysed. 20 hours of 1:1 conversational interviews with Members were conducted to explore the responses and results from the survey. These are further detailed in Section 5: Findings and Discussion.

### Key Findings

*"However beautiful the strategy, you should occasionally look at the results"*  
*"Continuous effort - not strength or intelligence - is the key to unlocking our potential"*  
Winston Churchill

The good news is that all the positive findings from the research point in the same direction.

Which is that *Authentic Leaders do indeed create a team culture of Psychological Safety which in turn generates a positive Safety Climate which subsequently leads to greater and more effective Safety Outcomes*. This finding is supported in all 3 ways by the evidence: Firstly, by the literature (see Section 3: Linking the Evidence, and Appendix I - References), secondly, by the statistical correlations and data generated by this research, (see section 5: Findings, and Appendix II - The 4 Questionnaires and their Statistical Data). And thirdly, in the subsequent discussions and interviews with IFSM Members.

The bad news, which probably won't come as a great surprise to those of you who still work within private organisations, is that without the right support, Fire Safety Managers and Health & Safety managers in general, continue to suffer 'moral injury'<sup>21-22</sup>.

Moral injury is the emotional harm that's caused by taking, seeing or failing to prevent actions that violate our own ethical standards, beliefs and values. The research identified that those Authentic Leaders who aren't happy, i.e. whose values don't match those of their organisation, will leave. However, because of their commitment to their colleagues, they often stay for longer than they want to and this does adversely affect their mental health.

Many people spoke about their frustrations with senior management and their senior leadership teams who are often perceived as 'damaging' the safety climate and safety outcomes by limiting the funds and budgets for important (even critical), safety initiatives and activities. *"We see unethical practice every day. It's invariably related to costs or profit"*. Only those people who are NOT Authentic Leaders would put productivity or profitability above people's safety and wellbeing<sup>6</sup>. This is often a cultural thing; with UK organisations often prioritising safety whereas some African-owned, Asian, Middle Eastern and European organisations were all cited by respondents as putting profits before people's safety.

88% of Members agreed that their team's safety record was better than industry averages, even though, interestingly, 64% of respondents also agreed that their team's safety record could be improved, suggesting that there is often room for optimisation and improvements even in the most highly performing teams.

Another significant finding was the surprising lack of management and leadership development offered to Members in their professional careers. Technically highly qualified (especially those with public sector experience), the vast majority of people had learned all of their leadership and management skills on the job. All of those interviewed said that they would welcome some specialist management and leadership development and felt that they would be beneficial, not just for themselves but also for their teams.

Across the 175 respondents, there were 4,001 years of industry experience; ranging from 1 to 55 with an average of 23 years. 95% of people said that they were proud to work in their teams, and the commitment that Members showed was unanimous. As one Member said, *"Fire Safety bit me 30 years ago and I love it, ... every day's a school day; there's always something to learn. Every day's different and there's nothing I would rather do"*. This was indicative of everyone's comments; they took tremendous satisfaction from their roles and the difference they were able to make, often on a daily basis.

It is well-recognised within the Fire Service that the role of Fire Fighter requires people with a high degree of *'Protective Instinct'*; those people who will run towards danger rather than away from it to save others. The role of Fire Safety Manager, indeed all safety management and leadership roles, requires something more however; the cognitive ability to recognise potential dangers and actively problem-solve to create an appropriate variety of possible solutions while remaining flexible and adaptable in their implementation. Combined with multiple scenario planning, the generation of contingency strategies and a pro-social ethical orientation mean that safety management and therefore Safety Managers are more likely to be Authentic Leaders than managers in less challenging roles and industries.

The words that emerged from research participants regarding Authentic Leaders and Authentic Leadership were *Integrity, Trust and Respect*.

Perhaps the most surprising finding of all doesn't directly relate to fire safety at all. According to a 2023 survey<sup>23</sup>, 31% of UK households report owning one or more dogs. Within the IFSM Membership who undertook the research, this figure more than doubles, at 68%! This also seems to be consistent beyond IFSM Members to the industry in general; many people spoke about their teams and offices where the majority of people also had dogs, sometimes bringing them to work where this was permitted.

The reasons for this are not yet clear; people spoke about their dogs always being pleased to see them, about how they could completely switch off when they were playing with, stroking, caring for or walking their pets. The value of dogs as a stress-reliever and aide to positive physical and mental health outcomes<sup>24-26</sup> cannot be under-estimated; particularly in an industry where the risk profile is significant and the potential implications of making an error or missing a key piece of information can be catastrophic.

## Recommendations

1. As all the evidence points in the direction of Authentic Leadership driving better Safety Outcomes, the 1<sup>st</sup> recommendation has to be to provide specialist management and Authentic Leadership development to those people responsible for any Safety Outcomes.



Implicit within this recommendation and any development programme are the following:

- In today's world, all leaders must manage and all managers must also lead; therefore people must learn the differences between the two and how to do both effectively.
  - The topics of Psychological Safety and Safety Climate; what they are and how to develop and measure them, also need to be included in the programme.
  - The development programme should be both customisable and bespoke to meet the specific needs of the industry and organisation that commissions it.
  - Specialist psychometric (psychological) tools and 1:1 coaching should be included as they have been shown to accelerate learning and development.
  - Ideally, team coaching should also be provided as this has also been shown to accelerate and embed the effectiveness of any training or development programme.
2. Within any organisation, #1 will only be effective with genuine support from the Senior Leadership Team, therefore they also need to understand and engage with the real value of an Authentic Leadership approach.
  3. The relevance and importance of dog ownership is well documented<sup>24-26</sup>. Potentially, its inclusion as an element of recruitment within the industry could point to shared values and the increased likelihood of people 'fitting in' and of more effective teamworking.

## 2. Authentic Leadership – what’s the big deal?

Much has been written about Authentic Leadership. However, it’s often misunderstood with many people suggesting that it’s simply about [being true to your beliefs and values](#). While these undoubtedly play a part, and everyone will be an Authentic Leader in their own unique way, there is much more to Authentic Leadership than that<sup>1,6-10</sup>.

*“Driven by passion, driven by purpose, Authentic Leaders combine personal courage with ethical decision-making to deliver successful, sustainable and meaningful results.” – Dr Fiona Beddoes-Jones*

The 3 Pillars model of Authentic Leadership (see Figure 1), emerged from my doctoral research, conducted with senior UK RAF officers. The characteristics included within the 3 Pillars are indicative only; there are many more characteristics and behavioural traits of Authentic Leaders and each leader will be an Authentic Leader in their own unique combination of ways. Integrity, trust and respect are embodied by Authentic Leaders. Importantly, Followers expect their leaders to be role models and to be consistent. A deficiency or weakness on any one of the 3 pillars is enough to derail a leader.

Figure 1.



The A, B, C of Authentic Leadership represents the characteristics of Authenticity, Bravery and Compassion. This model also emerged from my PhD research.

### 3. Linking the Evidence: Authentic Leadership, Psychological Safety, Safety Climate and Safety Outcomes

*“Because Authentic Leaders create a positive climate of psychological safety, Safety Managers who are identified as more Authentic Leaders will have a better safety record than those people who are less Authentic Leaders.”*

This section signposts the connections and links that already exist within the evidence, as they directly relate to the 4 areas of the research project.

- Increasing Psychological Safety saves lives<sup>11-12,14-16</sup>. This research was originally conducted in hospital Intensive Care Units (ICUs) with nurses, matrons and doctors.
- This research has identified that Psychological Safety is very highly correlated with Safety Climate suggesting a direct link between the two. It also suggests that the lack of one also means that there will be a lack of the other (see Appendix II). **Key Finding**
- Authentic Leadership is positively correlated with Psychological Safety<sup>13,17</sup>, meaning that followers and teams are more likely to feel psychologically (emotionally) safe and able to challenge and discuss difficult issues when they are led by an Authentic Leader.
- Authentic Leadership is also positively correlated with Safety Climate<sup>1-3,10</sup>.
- 30 years of safety research have validated Safety Climate as a predictor of Safety Outcomes<sup>5</sup>.



- Both Authentic Leadership and Psychological Safety are negatively correlated with accidents and near misses<sup>11-12,15</sup> as employees feel safe to voice ideas, seek feedback, provide honest feedback, collaborate, take risks and experiment.

- Psychological Safety links to enhancing safety by enabling employees to admit to errors, meaning that remedial actions can be taken and lessons can be learned<sup>13-14</sup>.

### Key Finding of this research

*“Authentic Leaders create a team culture of Psychological Safety which in turn generates a positive Safety Climate which leads to greater and more effective Safety Outcomes and therefore a better safety record.”*

- Higher levels of trust in leaders and managers positively influences Safety Climate<sup>2</sup>.

*“Team effectiveness is absolutely critical to safety outcomes. It’s Authentic Leadership that enables this team effectiveness; via Psychological Safety and the subsequent generation of a positive Safety Climate.”*

- A psychologically safe environment enables divergent thinking, creativity and risk-taking, and motivates engagement ... thereby promoting team performance<sup>12</sup>.
- Psychological Safety does not emerge automatically or naturally. Leaders and managers must create it<sup>12</sup>.
- Safety Critical Organisations should recruit and develop Authentic Leaders for effective risk management, positive Safety Climates and Safety Outcomes<sup>19</sup>.





#### 4. Research Methodology

The research linked together the following areas; all of which are of interest to both specialist Fire Safety Managers and Health and Safety Managers in general. The characteristics measured by and included in the research are shown below in Table 1.

- Authentic Leadership
- Psychological Safety
- Safety Climate
- Safety Outcomes

The research comprised a survey of 42 questions, accessed via the Survey Monkey platform. Quantitative, statistical data was analysed and 1:1 interviews totalling 20 hours were done to generate qualitative, real-person, real-life research data.

In total, 175 IFSM Members undertook the survey. Approximately 70% of participants worked in Fire Safety, 20% in Health & Safety and 10% in 'other'. Every respondent completed every question and no-one who started the research survey failed to finish. This 100% completion rate is virtually unheard of within research! 94% of research participants were male and 6% female. The range of industry experience was 1-55 years with a mean of 23 years. Cumulative industry experience for the research project was 4,001 years.

**Table 1 - Model Characteristics**

<p><b>Authentic Leadership</b></p> <ul style="list-style-type: none"> <li>• 3 Pillars Model: Self- Awareness; Self-Regulation; Ethics</li> <li>• ABC Model: Authenticity; Bravery; Compassion</li> <li>• Role Modelling</li> <li>• + Positive Relationships</li> <li>• Trust</li> </ul>	<p><b>Safety Climate</b></p> <ul style="list-style-type: none"> <li>• Safety practices are followed</li> <li>• Safety is prioritised</li> <li>• Leadership &amp; Management focus on safety</li> <li>• Safety issues openly discussed</li> <li>• Continuous improvement</li> </ul>
<p><b>Psychological Safety</b></p> <ul style="list-style-type: none"> <li>• Feels safe to take risks</li> <li>• Encouraged to speak up/out</li> <li>• Differences are embraced</li> <li>• Learning is shared</li> <li>• Feels supported</li> </ul>	<p><b>Safety Outcomes</b></p> <ul style="list-style-type: none"> <li>• Risk assessments</li> <li>• Safety compliance</li> <li>• Participation in safety procedures</li> <li>• 'Near-miss' reporting</li> <li>• Accidents/injuries minimised</li> </ul>

### 5. About [Dr Fiona Beddoes-Jones](#) and The Cognitive Fitness Consultancy

Fiona is passionate about supporting leaders to become their best authentic selves and to develop their own unique Authentic Leadership style to achieve their potential.

She has a background in organisational change and continuous improvement projects as well as accelerated learning and training and development. Fiona retrained in her 30's to become a psychologist and executive coach and is a Chartered member of the British Psychological Society as well as the Chartered Institute of Personnel and Development, the Institute of Directors and the Royal Society of Arts. She completed her doctoral research into Authentic Leadership in 2013, working with senior officers within the RAF, and now works with such organisations as the Maritime & Coastguard Agency, the Royal Navy, BP, Airbus and Holo Change. She's an Academic Fellow at the University of Birkbeck in London.

Having worked for Kent Fire & Rescue Service (KFRS) in the Organisational Development Team, she delivers a practical workshop on Authentic Leadership at the annual Women in the Fire Service (WFS) Conference at the Fire Service College in June.

#### The [Cognitive Fitness Consultancy](#)

Founded in 1996 by Dr Fiona Beddoes-Jones with the purpose of, *"Helping people and their organisations to think more effectively; with flexibility, agility and strength."*

Fiona developed [Thinking Styles™](#), the first of a suite of psychometric questionnaires and reports designed to support leaders and managers learn more about themselves and their teams and to develop their [Cognitive Fitness](#)<sup>30</sup> so they can lead and manage more effectively. [Cognitive Team Roles™](#) followed, as did [Leadership Temperament Types™](#) and the [Authentic Leadership 360™](#); an outcome of Fiona's PhD research.

Over the years, while a focus on assisting clients to improve the quality of their thinking, problem-solving, role modelling and taking a multiple-perspective approach continues, the underlying purpose of the consultancy has evolved ...

*"By combining evidence-based practice and the latest thinking in psychology, neuroscience and ethics, we help individuals, leaders, teams and organisations achieve their goals."*

Integrity, Authenticity and Authentic Leadership underpin all that we do.

### Appendix I - References

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30. [What is Cognitive Fitness?](#)

**Appendix II**

**The 4 Questionnaires and their Statistical Data**

This information is included here for 3 reasons: firstly for transparency, secondly to provide evidence of the statistical validity of the project results and thirdly to make the specific items within the questionnaires available to safety professionals should they choose to use them.

**Q1. Measuring Authentic Leadership**

This questionnaire used the items from Dr Beddoes-Jones’ Authentic Leadership 360 Questionnaire<sup>9</sup> and reflects the 3 Pillar Model of Self-Awareness, Self-Regulation & Ethics.

24	I put myself ‘in other people’s shoes’ and look at things from their perspective	Self-Awareness
25	I am aware of my own feelings, beliefs and motives	Self-Awareness
26	I am aware of how my moods and actions affect other people	Self-Awareness
27	I use what happens to me as an opportunity to learn more about myself	Self-Awareness
28	I stay in touch with my feelings so I am aware of how they are affecting me	Self-Awareness
29	I display self-discipline	Self-Regulation
20	I don’t suffer from mood swings	Self-Regulation
31	I remain approachable even when facing significant challenges	Self-Regulation
32	I consistently act as a role model for others	Self-Regulation
33	I keep my ego in check	Self-Regulation
34	I remain ethically steadfast in the face of dissent from others	Ethics
35	I am clear about my core values; those values I’m not prepared to negotiate on	Ethics
36	I believe that my role includes an ethical responsibility to others	Ethics
37	I discuss difficult issues with others	Ethics
38	I view ethics as an active choice rather than as a compromise	Ethics

**Q2. Measuring Psychological Safety**

A new questionnaire was written by Dr Fiona, adapted from the literature<sup>11</sup> and referencing the characteristics from Table 1.

Within our team ...

1	We recognise and accept that people sometimes make mistakes	OK to take risks
2	We can raise and discuss difficult issues and tough problems	Speak up/out
3	Everyone is accepted for their uniqueness and special talents	Differences embraced
4	Differences in thinking and working style are embraced	Differences embraced
5	We’re encouraged to share information about what does and doesn’t work	Learning is shared
6	My efforts are not undermined by other members of the team	Feels supported
7	I can take appropriate risks without anxiety	OK to take risks
8	I feel supported; that team members ‘have my back’	Feels supported
9	We share learning with each other	Learning is shared
10	Asking for help is easy	Feels supported

### Q.3 Measuring Safety Climate

A new questionnaire was written by Dr Fiona, adapted from the literature<sup>18</sup> and referencing the characteristics from Table 1.

Within our team ...

4	We are expected to follow good safety practices	Safety practices followed
5	We work together to ensure the safest possible conditions	Prioritization of safety
6	We don't take shortcuts regarding safety issues	Safety practices followed
7	Safety is prioritized	Prioritization of safety
8	Leadership and management are focused on promoting and supporting a safe workplace	Leadership & management focus on safety
9	We regularly complete risk assessments	Safety practices followed
10	We discuss 'near misses'	Open discussion of safety issues
11	We prioritize safety over productivity	Prioritization of safety
12	We share our learning regarding safety issues and outcomes	Open discussion of safety issues
13	We consider ways to continually improve	Continuous improvement

### Q4. Measuring Safety Outcomes

A new short questionnaire was written by Dr Fiona regarding safety results and records.

39	My team's safety record could be improved (N.B. this is a reversed question)	Safety record / results
40	My team's safety record of accidents and 'near misses' is better than industry averages	Safety record / results
41	Overall, my team's safety record is excellent	Safety record / results

### Internal Correlations

These figures show that despite all referring to the results outcome of an overall Safety Record, the questions show differentiation in responses, even though they are all highly correlated. Remember that 64% of people agreed to some extent that their team's safety record could be improved. [Key Finding](#)

	39	40	41
39	1		
40	.195**	1	
41	.429**	.653**	1

\*\* Correlation is significant at the 0.01 level (2-tailed)

### Chronbach's Alpha Co-efficients

Within psychology and the world of psychometrics, Chronbach's Alpha co-efficient is used to statistically check and confirm internal consistency and reliability; that the items within a questionnaire 'hang together' and are related. A figure of .7 is generally accepted as the cut-off.

Authentic Leadership	.871	15 items
Psychological Safety	.925	10 items
Safety Climate	.917	10 items
Safety Outcomes	.690	3 items
Whole questionnaire	.946	38 items

**Questionnaire (Scale) Correlations**

These are used to identify the degree to which the questionnaires correlate with each other.

	AL - SA	AL - SR	AL - E	PS	SC	SO
Authentic Leadership - SA	1					
Authentic Leadership - SR	.629**	1				
Authentic Leadership - E	.611**	.434**	1			
Psychological Safety	.468**	.377**	.423**	1		
Safety Climate	.412**	.334**	.270**	.840**	1	
Safety Outcomes	.330**	.258**	.254**	.477**	.449**	1

\*\* Correlation is significant at the 0.01 level (2-tailed)

As the statistics show; all of the areas are significantly correlated with each other.

Possibly the most important figure here is the **.840\*\*** correlation between Psychological Safety and Safety Climate. This lends support to the suggestion that within the Fire Safety and Health and Safety industries, if you create a culture of positive Psychological Safety then you are also likely to have a strong and positive Safety Climate.

While statistics and research outcomes can often vary between different population samples, this finding is consistent with previous research (see 3. Linking the Evidence), and is considered to be representative of the Fire Safety industry and Health and Safety Industries in general.