BEHAVIOURAL SAFETY AND ACCIDENT PREVENTION
Short-Term 'Fad' or Sustainable 'Fix'?

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B ehavioural approaches to safety management are commonly implemented within organizations in order to improve safety and reliability. These interventions are based upon the principle that modification and change of safety critical behaviours can facilitate safety improvements and reduce accidents. At the same time, there have been reported criticisms of behavioural approaches; specifically that they provide no substitute for a rigorously applied safety management programme and that behaviour modification is often limited to accidents with clearly identifiable behavioural precursors. Furthermore, it has been suggested (Anderson, 2005) that the focus on behavioural safety could provide a distraction from the ongoing control of low probability/high consequence risks.

The current paper will identify and discuss both the advantages and limitations of behaviour-based safety interventions through reference to case studies. The sustainability of behavioural approaches will be reviewed in the context of the authors' recent review of a long-standing behavioural safety programme within a high reliability organization. The authors will seek to critically review whether behavioural safety initiatives are short-term 'fads' or provide a sustainable 'fix'.

Keywords: safety; safety management; safety critical behaviour; behavioural safety programmes (BSP); behaviour change; sustainability; high reliability organizations.

INTRODUCTION

Accidents and injuries continue to be costly to UK industry as a whole[1] (HSE, 2004). The concomitant accident investigations have revealed a plethora of causal mechanisms. Although the causes of individual accidents and incidents are context specific, safety and reliability researchers continue to emphasise the importance of human factors in accident causation (Hollnagel, 1993; Cox and Cox, 1996; Hale, 2000). However, the term human factors is somewhat of a 'catch all' for all people-related causes, including ergonomic, behavioural and cognitive issues. In recent years the focus on behaviours, their root causes and the potential for behavioural modification and change has increased substantially and has emerged as an independent area of enquiry.

Behavioural approaches to the management of safety are becoming commonplace within organizations as part of their accident and incident prevention programme (IOSH, 1997; HSE, 2002). They have been implemented across a wide range of organizations, operating within a variety of sectors: for example chemical (Sutherland *et al.*, 2000); manufacturing (Vassie and Cox, 1999); food processing (Williams and Geller, 2000); offshore (Step-Change, 2000) and nuclear (Cox *et al.*, 2004). Behavioural safety programmes (BSPs) are typically based upon one to one, or group, observations of employees performing routine work tasks, feedback on safety related behaviours, coaching and mentoring (Cox *et al.*, 2004). Such initiatives have a proactive focus and encourage individuals and groups within the organization to reflect upon the safety issues within their environment (Sutherland *et al.*, 2000). Sutherland *et al.* have also emphasized the concept of reciprocity and mutual support in both observation and feedback. This approach encourages employees to both review their own and other colleagues potential for accident involvement. The outcomes of these collective deliberations provide a consensus of safety critical behaviours. Ideally this is an ongoing and iterative process (DeJoy, 2005).

The authors' approach to BSPs is founded upon a broad base of experience in a number of sectors spanning service, manufacturing and high reliability organizations. The authors preferred five-step approach (Cox and Vassie, 1995) directs the individual through a problem solving

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[1]There were 220 fatal injuries to workers in 2004/2005, a rate of 0.75 per 100 000 workers. In 2003/2004 there were 159 809 'other' reported injuries (629.1 per 100 000 workers); and nine million days lost due to workplace injury.

process which begins with an understanding of behavioural influences, through recognition of critical safe behaviours and finally to goal setting for, and appropriate monitoring of, critical safe behaviours using appropriate tools and techniques. Integral to the approach is 'ownership' and 'commitment' by the organization and managers and the individuals within the various workgroups.

The authors have adopted a four-phase approach for the implementation of BSPs (see Table 1). Phase one is focused on preparing the organization for the intervention. This is both a vital and time consuming process. It allows senior managers to demonstrate their full commitment and enables employees at all levels to become familiar with the underlying concepts and to engage in the BSP. During phase two of the implementation local facilitators are trained to take on the role of on-site co-ordinators of the BSP. Co-ordinators are trained in the use of behavioural checklists and feedback techniques. Phase three involves the formulation of checklists following the identification of safety critical behaviours. Pilot tests are conducted using the observation checklists and amendments made. 'SMART' targets (Sutherland *et al.*, 2000) are set for observations and supportive actions are undertaken by the organization to ensure buy-in; for example, communication strategies are reviewed. During phase four local facilitators are asked to identify team champions to co-ordinate the BSP on their site. At this stage the facilitators are encouraged to ensure that the BSP is adequately interfaced with other existing safety systems and that regular monitoring takes place.

The successful implementation of a BSP within an organization is claimed to improve overall performance with a concomitant reduction in accident rates (see later). There are also less tangible benefits reported in the literature, including for example improvements in morale and in individual learning (Cox *et al.*, 2004). The nature and extent of safety improvement are issues for continuing debate in safety fora (see e.g., HSE, 2002), as many of the reported studies can not control for other accident

reduction systems and processes within the organization. Moreover, criticisms of BSPs have been levied (HSE, 2000). The main criticisms relate to the relative merits and comparative rigour of conventional safety improvement systems; the belief that planned modification of human behaviour is manipulative; and the fact that management behaviours are reportedly perceived to be excluded within the scope of such programmes (Cox *et al.*, 2004). Other critics have concerns that behavioural modification is often limited to those accidents with clearly identifiable behavioural precursors; whereas many accidents have multiple causes (Reason, 1998). It has also been argued (Anderson, 2005) that behavioural safety initiatives may draw attention away from the prevention of low probability/high consequence events within high reliability organizations.

This paper outlines the practical benefits and pitfalls of behavioural safety. It will first provide a brief overview of underpinning theory and draw upon practical examples from the safety literature. It will present recent data within the context of a longstanding BSP. These data focus on both the impact and sustainability of a BSP within a high reliability organization. Finally the authors will identify the potential limitations of behavioural initiatives and consider ways in which some of these limitations could be overcome, so as to provide a stimulus for further debate.

THEORETICAL INFLUENCES ON BEHAVIOUR-BASED SAFETY

Behavioural safety interventions derive much of their theoretical underpinnings from psychological perspectives on learning, motivation, attitudes and beliefs. Within the psychological literature these constructs are separable and independent. However, in relation to the management of safe behaviours they appear to be inter-dependent. Human behaviour is often categorized as reflex/automatic, intended and habitual. The habitual category is the focus of behavioural approaches to safety management (HSE, 2002).

BSPs draw upon learning, reinforcement and social influence research and are grounded in the work of theorists such as Bandura (1977, 1986) and Skinner (1974). Bandura emphasized that mere exposure to a set of model behaviours is sufficient for learning to occur. Thus behavioural approaches to safety management encourage learning via observations and modelling of safe behaviours. However, whether learning is experienced seems dependent on the behaviour of the model and the learner. In this context it is important that individuals at all levels are committed to the process and model safe behaviours wherever possible (Cox *et al.*, 2004).

Skinner (1974), on the other hand, considered learning to be an active process where by behaviour is strengthened by reinforcement and feedback. The Theory of Operant Conditioning (Skinner, 1974) postulated that positive reinforcement, for example praise from colleagues or immediate managers, promotes behavioural change and learning. Whereas in many organizational contexts blame or criticism is often counter productive. BSPs reinforce safe behaviour via one to one and group feedback. However, it is equally important to ensure that unsafe practices are not

Table 1. Four-phase implementation (adapted from Vassie and Cox, 1999).

Phase	Milestones
Phase 1: Preparing for implementation	• Discuss concept with cross section of employees (including managers, supervisors, safety representatives, team members) • Plan implementation, safety away day • Communicate plan • Define measurement and feedback process
Phase 2: Training and supporting techniques	• Recruit local facilitators/co-ordinators • Prepare training materials • Train local facilitators/co-ordinators • Define work team composition • Train work teams
Phase 3: Designing checklists and observing behaviours	• Identify critical safe behaviours • Develop and test checklists
Phase 4: Managing and maintaining the process	• Set targets for observation • Define roles and responsibilities • Define interface with existing management systems • Review safety performance

being naturally reinforced from within the organization; for example, managers must ensure that safe behaviours are reinforced even when pressures are placed upon individuals to meet production deadlines. Managers also need to focus on an appropriate range of behaviours.

Theories of motivation have also influenced the development of BSPs (Griffin and Neal, 2000). Griffin and Neal (2000) acknowledge the importance of safety motivation to compliance in their studies within high performing organizations. Vroom (1964) proposed that individuals are motivated to behave in a certain way if they have a strong desire to achieve an outcome, such as working safely and to procedures; they have a reasonable expectation that they will achieve the outcome i.e., they are competent; and finally, they expect that the achievement of the task outcome will result in a reward, for example increased safety performance, quality completion and reduced accident rates. Behavioural safety interventions are also grounded in theories of goal setting. Locke and Latham (1991) suggest that a person's behaviour is driven by their goals and intentions. This principle is well established in relation to BSPs (see later) and goal/target setting sessions are routinely run in practice and follow the 'SMART' principle of participative goal-setting (Sutherland *et al.*, 2000).

The focus of BSPs is placed upon modifying (or changing) individual behaviour; with the underlying assumption being that once an individual has changed their behaviour a change in attitude will shortly follow (Bem, 1967). Lee (1998) suggests that the concepts of values, attitudes and beliefs are abstractions and are thus difficult to translate into action plans; behaviours are more concrete than attitudes and are thus more attractive targets for modification. However, to secure long-term changes in safety related performance, researchers have suggested that it is necessary to change both individual behaviours and attitudes (Fishbein and Ajzen, 1975). Fishbein and Ajzen (1975) thus proposed the Theory of Reasoned Action arguing that behaviour can be predicted if observers know (1) the individuals' attitude to the specific behaviour; (2) the individuals' intention to perform the behaviour; (3) what the individual feels are the consequences of performing that behaviour; and (4) the social norms that govern the behaviour. Satisfying each of these conditions allows predictions of behaviour to be made. Behavioural safety can thus be reviewed in terms of the Fishbein and Ajzen (1975) and Ajzen (1991) approach. Interventions can be designed to address attitudes related to safety critical behaviours. Furthermore, social norms can be developed within work groups which can foster positive attitudes towards safety. In some cases these norms may vary between work groups (see e.g., Cox *et al.*, 2004) and can impact on the level of commitment to the BSP.

BEHAVIOURAL SAFETY: RECORDED IMPROVEMENTS

The emphases of BSPs are thus placed upon encouraging employees to behave safely, facilitating learning, exploring the motives underpinning behaviour, and understanding what supports safe and unsafe behaviour in the workplace so as to gain improvements (Vassie and Cox, 1999). These facets of BSPs are both individually and collectively illustrated in the following case studies.

One of the first reported studies utilizing behavioural analysis to improve worker safety was conducted by Komaki *et al.* (1978). The analysis was located in a food manufacturing plant within two separate departments (the makeup department and the wrapping department). Komaki *et al.* (1978) used a direct observational technique whilst emphasizing a variety of safety practices. Desired safety practices were identified, so as to support the construction of observational codes suitable for observing workers' on-the-job performance. The intervention team began by taking baseline measures of safe performance at the plant. This included regular observations using pre-coded checklists. A multiple baseline design was utilized by Komaki and colleagues; after $5\frac{1}{2}$ weeks the intervention was introduced in the wrapping department; and after $13\frac{1}{2}$ weeks the intervention was started for the makeup department. The intervention began with an explanation and visual presentation of desired behaviours to all employees involved in the study. Frequent observations using the observational codes were conducted and reinforcement was provided using feedback. When the intervention had been in place for 11 and 3 weeks, respectively a reversal phase was instituted (i.e., the observers discontinued observing and providing feedback). To assess the effects of this reversal stage the observations were reinstituted 5 weeks later, once a week for a period of 4 weeks. Data were collected, in total, over a 25-week period of time. During the baseline phase, means of 70% and 78% safe behaviours were observed in the wrapping and makeup departments, respectively. Following the intervention in each of the departments the percentage of behaviours performed safely increased dramatically to 96% and 99%, respectively. In line with Bandura (1977, 1986), during the reversal phase safe behaviours were not modelled and performance returned to baseline levels. Komaki *et al.* (1978) reported that employees had reacted favourably towards the programme. Furthermore, the organization was later able to maintain the programme with a continuing decline in the injury frequency rate. The intervention was thus effective in significantly increasing employee safe behaviours and improving overall levels of performance.

Sutherland *et al.* (2000) report the implementation of a BSP within a moderately sized continuous process plant. The study organization was part of an international chemical company and had been in operation for over 50 years. Prior to the intervention, the company had experienced a change to its strategic focus towards speciality products; ensuring quality, service and reliability to their customers. There had been a long-term commitment to safety within the study organization, however much of the safety improvement efforts employed by the organization had been reactive. Sutherland *et al.* (2000) supported the organization in the development and implementation of a BSP. The process was developed following a site-wide survey and a series of interviews with key stakeholders. Baseline measures were recorded for a period of 4 weeks and goals were set within individual departments and work groups for improved safety performance. The importance of goal setting for behavioural improvements was highlighted earlier (see e.g., Locke and Latham, 1991). The intervention period lasted for a period of 20 weeks; during this period observers conducted their observations and entered the results on to a feedback graph. Following

the initial phases of the intervention the company percentage safety performance had improved significantly from 50% during the baseline to approximately 80%.

The first author has described a similar intervention within one UK manufacturing site of a large multi-national organization (Vassie and Cox, 1999). Although the pilot programme resulted in significant increases in safe behaviours, there were variations across the plant in commitment and take-up of the initiative. This was further illustrated as the BSP was rolled out across other manufacturing outlets. The motivation of employees to engage in the programme was correlated to their 'acceptance' of or 'scepticism' towards, safety-improvement targets.

Researchers have also attempted to pinpoint which of the components of behavioural safety interventions are the most effective in improving safe performance. Komaki *et al.* (1980) in a study conducted in a city's vehicle maintenance division, introduced multiple baseline periods, five conditions and a reversal phase. The five conditions included: a baseline phase, training only one phase (desired practices were discussed, illustrated and posted), training and feedback one phase (supervisors observed daily and provided feedback about the section of safety level on graphs), training only two phase (supervisors ceased observations and providing feedback), and finally training and feedback two phase (observations resumed and feedback was provided). Employees showed only slight improvements during the training only one phase compared to the baseline measure. Meanwhile performance was substantially increased during training and feedback one. At this point Komaki *et al.* (1980) concluded that training alone was not a sufficient means of improving and maintaining performance. This conclusion was confirmed during the training only two phase when performance declined. However, performance improved once again during the training and feedback two phase (but only when feedback was given at least three times per week). Data indicated that during the training and feedback one phase, for example, all sections improved their safety level for an average increase of 16% over the training only one phase and 26% over baseline. During this phase all sections were performing safely at least two-thirds of the time (with two sections performing consistently at the 90% level). These findings can be linked directly to the Theory of Operant Conditioning proposed by Skinner (1974) where individual safety behaviour is strengthened by reinforcement of safe practices and feedback on safe and unsafe behaviours (see earlier discussions).

Research suggests that behavioural safety interventions have been successfully implemented within a wide variety of industrial sectors and contexts. There is also a growing body of evidence and guidance on the optimal design of BSPs (Komaki *et al.*, 1980; Cox and Vassie, 1999). However, BSPs still have their critics (HSE, 2002) and there are growing debates on the relative benefits of behavioural versus conventional approaches. The performance data reported within the literature tend to adopt a short-term horizon and there is a need to review the longer-term benefits to assess whether BSPs offer a 'sustainable fix'. The authors have undertaken such a review within a high reliability organization.

BEHAVIOURAL SAFETY: MAINTENANCE AND SUSTAINABILITY

The current study of a BSP was undertaken as part of a larger European research project 'LearnSafe' (http://www.vtt.fi/vitual/learnsafe). The evaluation took place approximately five years after the successful roll-out of the behavioural safety programme within the study organization (see Cox *et al.*, 2004). The evaluation was designed to assess employee attitudes towards the longevity of the BSP rather than to measure behavioural improvement *per se*. The focus of the evaluation was placed upon employee inputs to, and experiences of, behavioural safety within the organization. The emphasis was also placed upon developing an understanding of the learning opportunities provided by behavioural approaches to safety management given the relatively long implementation period. Data were gathered using semi-structured interviews and plant observations. Responses were analysed using qualitative methods (Dane, 1990; Holtsi, 1969). The evaluation project team highlighted both the strengths and limitations of adopting a behavioural

Table 2. BSP perceived advantages, pitfalls and learning opportunities (adapted from Cox *et al.*, 2004).

Reported advantages	Reported pitfalls	Reported learning opportunities
Increases safety awareness	Needs effective leadership	Opportunities for communication/knowledge sharing
Promotes communication	Unreal expectations	
Partnership between managers, unions and employees	Needs foundation of trust	Source of valuable knowledge for local learning
	Could be used negatively as a 'weapon'	
Increases interaction between employees and supervisors	More feedback needed	Builds awareness of safety and site values
	Reluctance to be observed	Allows and reinforces learning from mistaken actions
Linked to events on site	Certain teams/groups deliberately undermined the approach	
Encourages sharing of knowledge and learning from mistakes		Direct link between behaviour and consequences
	Difficulties of maintaining enthusiasm	
Highlights a direct link between behaviour and consequences	Slows other work/procedures	Switched on to have an impact on others
	Suggested improvements not acted upon	Problem identification and employee driven solutions
Focus on all levels		
Development of employee skills		Challenging
Builds safety into culture		Reinforcing nature of approach with tangible benefits
Ownership of solutions		
Raises profile of safety		Praise given for safe behaviour
Increases safety on site		
Everyone is responsible for safety		
Transferable skills		

approach (see Table 2). They also developed a suite of evaluation tools. These findings are discussed in the following sections.

Advantages of Behavioural Safety Interventions

Employees at participating plants displayed an overall positive attitude towards the BSP. One of the key strengths of behaviour-based safety related to safety awareness. Programmes were seen to increase the awareness of safety related issues across the organization and to support the development of the safety culture. Overall, employees reported that 'behavioural safety added considerable value' to the study organization as it supported cultural realignment towards a 'safety first' culture. Respondents considered behavioural safety to be an effective motivational tool, enabling successful behaviour modification and attitude change. Employees believed that their involvement from the start of the intervention enabled them to take full responsibility for safety on site. Furthermore, employees reported that there was 'a sense of ownership amongst colleagues toward the solutions implemented to overcome unsafe behaviours'. Behavioural approaches to safety management were also reported to equip individuals with transferable skills that could be used both within and outside of the workplace.

BSPs were also reported to improve and promote an increase in both the level and quality of communication amongst individuals as well as within and between work groups. Furthermore, they were seen to increase the interaction between employees, their supervisors and their managers; something that had not been achieved by other safety interventions. It was also felt that BSPs should be further integrated with other on-site initiatives, for example within environmental programmes.

One of the main strengths of the approach was reflected in the number of learning opportunities created by the BSPs (see Table 2). Employees reported that 'behavioural safety enabled individuals to make a direct link between their own unsafe actions and the consequences of performing such actions'. Behaviour-based safety was also seen to encourage the development of a learning organization by promoting teamwork and creating collective meanings in relation to safety related issues (i.e., creating 'a shared vision'). The process was felt to offer opportunities for capturing and sharing knowledge amongst individuals. BSPs can thus be viewed as a vehicle for mobilizing individual capability. Employees within the study organization also felt encouraged to participate further in problem identification and employee driven solutions. They also reported that the approach allowed for the sharing of knowledge and personal experiences in a systematic way. The BSP also facilitated monitoring of operational experience and feedback to all employees. Feedback of this nature 'closes the loop' for learning and 'supports continuous improvements'.

Reported Pitfalls of Behavioural Safety Interventions

Employees also reported some of the pitfalls within the behavioural safety approach. Some employees reported that they were concerned 'that managers could have used observations, performed as part of the approach, negatively as a weapon against individuals'. Thus there was a reluctance to be observed reported by some individuals. There was also some evidence to confirm that a small minority of employees deliberately undermined the approach so as to avoid participation. This may have been attributed to the slow-down in work practices or may be related to lack of trust.

Sustainability was also recognized by respondents as being a potential pitfall with behavioural approaches to safety management. The BSP initiative implemented within the study organization was developed with the intention that it would be part of the organization's long-term safety management strategy. However, employees reported that it had become increasingly difficult to maintain employee motivation to participate in observations, mentoring, and so on, within recent months. Employees reported that feedback from observations must be timely in order for learning to take place. It was also felt to be important that feedback provided at a site-wide level was visible to all participants, focusing attention on the key issues. Employees suggested that solutions were not always being implemented and thus difficulties in maintaining enthusiasm towards the approach had surfaced in some areas. Finally, respondents recognised that behavioural safety needed effective leadership if it was to be a successful part of the organization's safety management system. Leadership of the process was required at the highest level, alongside the continuing visible support from key stakeholder groups.

The case study has briefly highlighted the key facilitators and hindrances to the successful implementation and maintenance of a BSP within the study organization. These are reported in detail elsewhere (Cox *et al.*, 2004). Following the case study the authors were able to advise the study organization on the development of the BSP so as to support the programme's ongoing maintenance.

DISCUSSION

The studies reported in this paper have illustrated the impact of BSPs on safety performance within a variety of contexts. There is also evidence, grounded in theory, to illustrate optimal programme design (Komaki *et al.*, 1980). The overall picture appears positive and elaborates the advantages of behavioural approaches in reducing accidents and incidents. However, there are a number of pitfalls associated with the programmes.

The authors' research (Cox *et al.*, 2004) in relation to behavioural safety initiatives in a high reliability organization has highlighted some of the underpinning strengths and weaknesses. The evidence suggests that there are real advantages that accrue, to both the individual and to the organization, if the programme is well designed (Komaki *et al.*, 1980). The individual can acquire transferable skills, feel more actively engaged in decision making for safety, develop a positive attitude and feel more motivated to perform (Ajzen, 1991). Whilst the organization can build upon the commitment and increased awareness of safety related issues to develop its safety culture (Cox and Flin, 1998). The evidence also confirms that one of the key strengths of behavioural safety interventions lies within the potential for such approaches to promote learning at both an individual and organizational level (Jones and Cox, 2005). Behavioural approaches to safety

management thus enable organizations to develop a culture focused upon continuous improvement. There is also the potential to link BSPs with operational experience feedback (OEF) systems.

There are several reported weaknesses of BSPs (HSE, 2000). One of the main criticisms relates to the comparative rigour of BSPs and other safety improvement programmes. The authors' research suggests that in many cases, the successful implementation of a behavioural programme can heighten awareness of, and compliance with, other safety controls. Effective safety leadership at all levels of the organization is clearly a prerequisite for success. The authors' work suggests that leadership should be manifest in managerial behaviours and actions (Cheyne *et al.*, 2002). Furthermore, the need to ensure that any suggested improvements are followed up, and that timely feedback is given, is important if behavioural safety interventions are to sustain momentum and maintain their ability to reduce accidents. The apparent reluctance of employees to engage with behavioural improvement has been linked to the ethical status of behavioural manipulation. The studies reported in this paper would suggest that if the BSP is designed collaboratively, with a high degree of trust, the objections to behavioural modification can be overcome. There are also issues associated with the sustainability of BSPs. The authors have developed tools and techniques (Cox *et al.*, 2004) for organizations to evaluate the effectiveness of BSPs so as to uncover potential weaknesses which may impact on the success of such programmes. The associated questionnaire can be used to highlight group norms across complex sites.

More substantively, BSPs cannot claim to be a 'catch all' for all safety and reliability issues. They are best used within a holistic safety management programme. In this vein the authors would strongly support the view (Anderson, 2005; HSE, 2000; Cox and Tait, 1993) that safety excellent organizations need to adopt a systems approach, in which there are strong engineering controls, effective management systems and people-related controls. There is also a suggested performance threshold that organizations should meet before embarking on behavioural safety initiatives. The question of whether BSPs are a short-term 'fad' or sustainable 'fix' clearly rests in the hands of the adopting organizations and their leaders. A well managed programme can be sustained with commitment from senior managers and project champions.

SUMMARY

Accidents and injuries continue to be costly to UK industry as a whole[2] (HSE, 2004). In this context people focused approaches to safety have become increasingly popular. The Chair of the UK Health and Safety Commission (Bill Callaghan) has emphasized broad behavioural factors in his press release to accompany the latest statistics (July 2005) 'More deaths could be prevented with enough commitment from senior managers and the active involvement of employees. These are the people best placed to achieve

improvements'. Given the importance placed upon leadership and employee engagement behavioural safety initiatives seem to offer an appropriate vehicle for improvement.

The current paper has identified and discussed both the advantages and limitations of behaviour-based safety interventions through reference to case studies. The sustainability of behavioural approaches has also been reviewed in the context of the authors' recent review of a long-standing behavioural safety programme within a high reliability organization. However, the 'fad' or 'fix' dilemma still remains an issue for all safety practitioners and researchers. The authors believe that the emphasis for resolution rests at present with the organizations and their leaders. However, we are sure that the issues raised in this special edition and in future studies will further support the sustainability of BSPs.

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