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## Can personal values help to manage workers' occupational safety and health behaviour?

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#### Abstract

Finding innovative and effective ways of improving construction workers' occupational safety and health behaviour is a challenge for implementers of behavioural-based safety (BBS) programmes. Whilst innate antecedents of behaviour could hold the key, limited research has explored the potential effect of innate triggers of behaviour such as personal values. In order to address this gap, this study presents findings from two exploratory inquiries (in UK & Thailand) into the influence of workers personal values on occupational safety and health motivation (OSHM). Both inquiries employed surveys of construction workers on project sites. The UK and Thailand surveys yielded 55 and 83 responses respectively. Through the use of factor analysis and multiple regression modelling, it was found from both surveys that various dimensions of higher-order personal values have statistically significant relationships with different dimensions of OSHM. For instance, in the Thai study self-transcendence and conservation values were positively related to identified OSHM and intrinsic OSHM respectively, while self-enhancement value was positively related to introjected OSHM. In the UK survey, intrinsic and identified motivation scales loaded as one dimension (autonomous motivation) which was positively related to self-transcendence. Overall, the findings from the different national contexts provide some evidence of the predictive effect of personal values on OSHM. The findings thus begin to emphasise the need for the consideration of workers personal values in the design/development and implementation of BBS interventions.

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#### 1. Introduction

Occupational safety and health (OSH) in construction is a major concern as construction continues to be very hazardous [1]. According to Shin et al. [2], about 88% of all industrial accidents are caused by unsafe worker behaviours with the remaining 12% caused by the physical environment and other restrictions. In recognition of the contribution of worker behaviour/acts to unwanted OSH outcomes, there has been a growing emphasis on behavioural-based safety (BBS) programmes. BBS programmes are based on the principle of identifying and promoting safe behaviour and attitudes among individual workers [3]. Consequently, an understanding of the potent antecedents of OSH behaviour is important. However, BBS interventions have taken limited cognisance of intrinsic human factors that could affect behaviour such as human values [4]. Drawing on studies in psychology that have shown significant relationships between human values and behaviours [5], Manu et al. [4] argued for studies into the role of human values in BBS. In line with this, this study particularly examined the relationship between workers personal values and occupational safety and health motivation (OSHM) in construction. The next section reviews literature on human values and OSHM towards the development of a research framework. Subsequently the research methodology applied in the study is outlined. The ensuing research findings, their discussion and concluding remarks are then presented.

#### 2. Literature review

#### 2.1. Human Values

According to Kluckhohn [6] "A value is a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable, which influences the selection from available modes, means, and ends of action". Schwartz proposed a more expansive view of values, referring to it "as desirable, trans-situational goals, varying in importance that serve as guiding principles in people's lives" [7]. Schwartz [5] proposed ten basic values shown in Table 1.

Table 1: Definitions of the Basic Structure of Values [5]

3.7.1		
Values	Description	PVQ scale Items
Openness to change	Independence of thought, action and feelings	
Self-direction	The desire to be free from external control or	2 items e.g. Thinking up new ideas and being creative is important to me. I
	constraints on one's thoughts or actions.	like to do things in my own original way.
Stimulation	Seeking arousal by participating in exciting,	2 items e.g. I like surprises and I am always looking for new things to do. I
	new, and challenging activities.	think it is important to do a lot of different things in life.
	Pursuing pleasurable experiences, especially	2 items e.g. Having a good time is important to me. I like to "spoil" myself.
	sensual gratification.	
Self-enhancement	Interests in relation to success and dominance over others	
Achievement	Wanting to be competent and to be recognized	2 items e.g. It is very important to me to show my abilities. I want people to
	for one's accomplishments.	admire what I do.
Power	Desire to exert control over people and	2 items e.g. It is important to me to be rich. I want to have a lot of money and
	resources.	expensive things.
Conservation	Order, self-restriction and preservation	
Security	Desire to avoid danger or instability.	2 items e.g. It is important to me to live in secure surroundings. I avoid
		anything that might endanger my safety.
•	Need to avoid violations of social norms and	2 items e.g. I believe that people should do what they are told. I think people
	expectations.	should follow rules at all times, even when no one is watching.
	Accepting the established patterns of thought	2 items e.g. Tradition is important to me. I try to follow the customs handed
	and behaviour that reflect one's culture.	down by my religion or my family.
Self-transcendence	Welfare and interests of others	
Benevolence	Desire to promote the welfare of people with	2 items e.g. It is very important to me to help the people around me. I want
-	whom one has frequent personal contact.	to care for their well-being.
Universalism	Desire to promote the welfare of all people	3 items e.g. I think it is important that every person in the world be treated
	(including strangers) and a concern for the	equally. I believe everyone should have equal opportunities in life.
	protection of nature. linked to Maslow's	
	concept of the self-actualisation	

Together, the 10 basic values form four higher-order dimensions: self-enhancement; self-transcendence; openness to change; and conservation [5]. Whereas self-transcendence and conservation values have a social focus (i.e. regulate

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