

## **SOCIAL EXCHANGE RELATIONSHIPS AND SAFETY OUTCOMES IN A HIGH HAZARD INDUSTRY**

Ceri R. Jones\*, PhD., University of Leicester, Tom Cox, PhD, Birkbeck College London, Amanda J. Griffiths, PhD, University of Nottingham

There are 317 million accidents at work annually with 2.3 million deaths per year as a result of work place accidents. Loss of life is compounded by the financial cost of incidents and accidents (ILO). In the UK, 27 million working days are lost due to work-related illness or injury and workplace injury and ill health cost the UK an estimated £13.4 billion (HSE, 2012). Whilst there have been reductions in the number and rate of injury in the construction industry over the last 20 years, in the UK it still remains a high risk industry. While the industry only accounts for about 5% of the working population, in the UK it is still responsible for 22% of fatal injuries (HSE, 2012). Over the last 30 years researchers have examined safety climate and its relationship to poor safety performance. Workplace safety climate can be conceptualised as facet or ‘snapshot’ of organisational culture (Flin et al., 2000). Reviews of safety climate measures identify management and leadership as a key dimension (Flin et al., 2000). Further meta-analysis demonstrates the predictive validity of safety climate as a leading safety indicator (Clarke, 2006b; Christian et al., 2009; Beus et al., 2010) and that safety climate and safety outcomes are influenced by wider organisational factors such as engagement, job resources and organisational commitment (Clarke, 2010; Nahrgang et al., 2010).

A multi-method, triangulated approach was adopted combining both qualitative (focus groups and interviews) and quantitative (safety climate questionnaire) methods. This paper reports the quantitative results. The themes identified in the qualitative studies were used to inform the questionnaire development. Six constructs; Safety Climate, Safety Communication, Perceived Organisational Support (POS), Leader Member Exchange (LMX), Employee Engagement and Organisational Commitment were assessed using a 78 item questionnaire. Measures of self-reported accidents and near misses were also included. Participants were employees (408) based in a high hazard, power generation construction organisation were administered the survey, resulting in a 63% response rate (255).

Communication, POS, Employee Engagement, LMX and Organisational Commitment demonstrate a significant relationship with Safety Climate. Safety Climate and POS had a significant, positive, predictive relationship with both accidents and near misses reported. Upward communication had a significant, negative, predictive relationship with accidents and near misses. LMX and Organisational Commitment showed a significant, negative, predictive relationship with accidents reported only.

Results can be explained in the context of social exchange relationships. What is being measured is not the number of accidents or near misses as such but rather it is reporting behaviour. This can be conceptualised as organisational safety citizenship behaviour. The probability of increasing or reducing reporting behaviours is shaped by social exchanges such as; a) the degree that employees feel supported by the organisation, b) their manager, c) the safety climate, d) their commitment levels e) and opportunities to raise safety concerns.

**CORRESPONDING AUTHOR:** Ceri R. Jones PhD, School of Psychology, University of Leicester, Henry Welcome Building, Lancaster Road, Leicester, LE1 9HN, UK