

as a value nor a conception of the factors that predict a high value for safety at work. The aim of this study was to examine the different aspects of safety as a value, and to determine the factors that predict that safety will be highly valued in organisations, and the relations between personal values, work values and safety as value. Understanding the factors related to the high value of safety is essential when aiming to improve safety in organisations, since values influence employee perception of safety and safety performance.

Methods We developed a 'Workplace values and value of safety' (WVVS) questionnaire based on a literature review and interviews. The questionnaire consists of A) three safety aspects: 1) safety performance, 2) safety values, and 3) factors that strengthen safety as a value; and B) Schwartz's Basic Human Values Scale (BHVS); and C) a Work Value Survey (WVS). The respondents ($n > 1200$) are from three Finnish companies from different fields of industries representing different personnel groups. We will use conventional statistical analysis, but also exploratory data-analysis techniques, aiming to identify interesting sub-populations whose behaviour differs from the norm, as well as to form a novel hypothesis regarding the effects of values on occupational safety.

Results The results show the factorial structure of the WVVS questionnaire, reveal the factors that predict a high value for safety, and show the relations between personal and work values and the value of safety.

Conclusions Our results improve understanding of practices that could support, promote and share safety as a value in organisations. We need new tools to share values and encourage members of the organisation to acquire them.

Drowning and Water Safety

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1009 TRENDS IN DROWNING DEATHS AMONG CHILDREN IN JAPAN: 1995–2014

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Background In Japan, drowning is the second leading cause of deaths due to unintentional injuries following motor vehicle crashes among children. Drowning took the lives of 80 children aged 0–14 in 2014. The purpose of this study is to analyse the trends in drowning death rates and the share of drowning in unintentional injuries among children.

Methods Mortality data on unintentional injuries including drowning provided by the Vital Statistics of Japan was used. The deaths caused by the Great East Japan Earthquake in 2011 were removed from the analysis to avoid confounding.

Results The drowning death rate among all ages was 4.5 per 100,000 population in 1995, and 6.0 in 2014. Among infants under 1 year old, the drowning death rate was 1.9 per 100,000 population in 1995, and 0.2 in 2014. Among 1–4 year olds, the drowning death rate was 3.7 per 100,000 population in 1995, and 0.5 in 2014. Among 5–9 year olds, the drowning death rate was 1.7 per 100,000 population in 1995, and 0.4 in 2014.

Among 10–14 year olds, the drowning death rate was 0.7 per 100,000 population in 1995, and 0.6 in 2014.

The share of drowning death in all deaths due to unintentional injuries among all ages was 12.3% in 1995, and 19.2% in 2014. Among infants under 1 year old, the share of drowning death in all deaths due to unintentional injuries was 6.7% in 1995, and 2.6% in 2014. Among 1–4 year olds, the share of drowning death in all deaths due to unintentional injuries was 27.9% in 1995, and 18.6% in 2014. Among 5–9 year olds, the share of drowning death in all deaths due to unintentional injuries was 21.3% in 1995, and 31.4% in 2014. Among 10–14 year olds, the share of drowning death in all deaths due to unintentional injuries was 14.1% in 1995, and 29.4% in 2014.

Conclusions Drowning death rates among children decreased significantly, but the share of drowning death in all deaths due to unintentional injuries virtually did not change. This means that the incidence of drowning was stable and high compared to other unintentional injuries.

To reduce the number of drowning deaths, it is important for not only students but also parents, teachers and doctors to learn about drowning facts and statistics. It is also necessary to improve health education including drowning prevention curriculum in cooperation with various health specialties to create a healthy school environment for students.

1010 SLSA PERSONAL PROTECTIVE EQUIPMENT (PPE) PROJECT – DEVELOPMENT OF THE LEVEL 25 LIFEJACKET

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Background Surf Lifesavers and Lifeguards operate in an inherently hazardous aquatic environment. Recently, Surf Life Saving Australia (SLSA) has lost 3 lifesavers in surf sports competition and training, and in the United States there have been 2 lifeguards drowned during operational service.

The risk remains that a lifesaver or lifeguard may become incapacitated in the water, become submerged and unable to be located to receive timely medical attention.

The objective of the project was to deliver a specification for a lifejacket that would reliably return an incapacitated individual to the surface but also minimise impacts on performance to a level as low as reasonably possible.

Methods SLSA engaged James Cook University and SAI Global to conduct the assessment process and assist in development of a fit for purpose specification.

The first stage assessed and ruled out the Level 50 International Standard as having excessive buoyancy and adversely impacting exertion levels while conducting tasks such as duck diving. It was then hypothesised that a similarly designed slimline lifejacket with a lower level of buoyancy could feasibly fulfil the objectives.

The second stage assessed a variety of buoyancy aids that were not compliant with any standards. These devices were readily available in the international marketplace as impact vests, surface vests, and competition vests commonly used for individuals engaged in extreme sports such as wakeboarders, big wave surfers and kite boarders.

Results Testing of these non-compliant buoyancy aids indicated poor quality control over the production processes and varying rates of buoyancy that didn't necessarily correlate to size. This