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Queensland Mining Industry Health and Safety Conference

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Conference paper: *Workforce indicators of health literacy*

Workforce indicators of health literacy

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Introduction

The concept of health literacy has evolved over the last forty years from an individual, literacy driven focus in clinical settings to one associated with a contemporary approach to health promotion. The World Health Organization has defined health literacy as *'the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health'* (World Health Organization, 1998, p. 10). The conceptual evolution of health literacy has seen a shift beyond a functional orientation to also recognise cognitive, behavioural and environmental influences. This more comprehensive view of health literacy acknowledges factors like efficacy, motivation, self-efficacy, autonomy, social support and empowerment. A health literate workforce could present benefits for the employee and employer.

This paper will identify health literacy indicators, outline the method used to validate a new health literacy measurement tool developed for the Australian mining industry and present workplace recommendations.

Three types of health literacy

Nutbeam (2000) developed a comprehensive health literacy model that identifies and distinguishes three different types. This model recognises differing levels of autonomy and empowerment as individuals demonstrate higher level capacity and action. A summary of the model is presented below in figure 1.

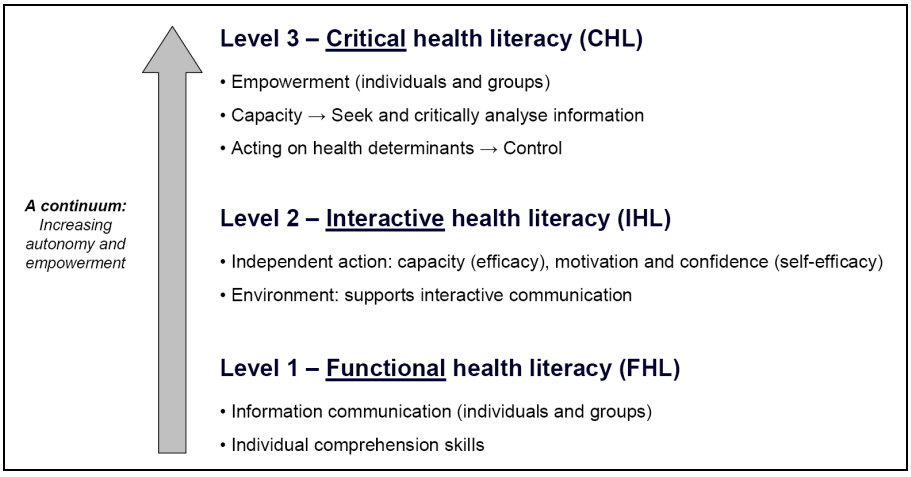

Figure 1: Comprehensive health literacy model

Health literacy and the mining industry

Health literacy is recognised by the World Health Organization as a capacity building health determinant. The Workforce Health Innovation (WHI) group at QUT's Institute of Health and Biomedical Innovation is developing an understanding of health literacy in the mining industry with the aim of improving health communication strategies and enhancing health related behaviour.

Worker centred communication methods are developed with the audience in mind. This approach acknowledges factors that may impact on the responsiveness of the employee. In addition to this focus, worker centred communication methods should also present context specific information and emphasise relevance to facilitate engagement and motivation. Workforce indicators of health literacy include the effective use of information, discussion, finding health information, applying critically evaluative skills, achieving control and helping others.

Evaluating health literacy

During the 1990s, clinically oriented scales were developed to evaluate the functional health literacy of individuals. Population level scales with a health promotion orientation were developed during the previous decade. At the same time, occupational health literacy scales were introduced including a Japanese study that also assessed health related behaviours, coping and somatic symptoms among office workers (Ishikawa, Nomura, Sato & Yano, 2008). Somatic symptoms recorded included headache, dizziness, shoulder stiffness, back pain, shortness of breath, abdominal pain & general fatigue. Ishikawa, Nomura, Sato & Yano (2008) concluded from their research that higher levels of health literacy were associated with more positive health behaviours, and greater information seeking behaviour coupled with critical skills and less somatic symptoms.

A method for promoting health literacy is of little use if you have no means to evaluate impact. The purpose of a research study conducted by the QUT WHI group was to validate a new health literacy measurement tool designed for the Australian mining industry. The Australian Mining Health Literacy Questionnaire (AMHLQ) was developed as an industry specific tool for evaluating interactive and critical health literacy. The rationale for creating the AMHLQ was to develop a means for assessing impact and facilitating informed future planning. The research process included two stages. Firstly, content validation required the input of health literacy experts via a rating scale developed for each item within the questionnaire. The rating scale used in this procedure is based on research conducted by Polit, Beck & Owen (2007). Secondly, a context validation process was completed by mining industry workers. Following both validation phases, some questionnaire items were flagged for review or deletion.

Future development of the AMHLQ will include pilot testing to assess reliability. Following pilot testing, a final review of the AMHLQ will be completed before it is used as a tool for evaluating health literacy before and after implementation of a novel health promotion initiative specifically designed for the mining industry.

Conclusion and recommendations

If a workplace goal is to enhance workforce health, a focus on health literacy is essential as it is associated with the acquisition of knowledge and the way people think, feel and act in relation to their health or that of others.

Communication methods should present a clear rationale to support worker engagement and motivation. Context specific and worker centred strategies should be used to emphasise relevance and encourage introspective review of health related knowledge, attitudes, values and behaviour. A positive workplace health culture supports discussion of health issues and can be strengthened by feedback receptive attitudes.

Evaluating health education methods in the workplace requires carefully designed, evidence based procedures. Appropriate identification of health literacy indicators requires specialised knowledge coupled with an understanding of the mining industry context.

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