

**Methods** Data pertaining to demographic characteristics, body parts discomforts and other occupational health related issues was collected from the users (n=30, localised in and around Guwahati city, India) of hand-held stone-polishing tool after administering the standardised questionnaire. Working postures was evaluated using REBA (rapid entire body assessment) technique. During use of polishing tool, quantification of the exposure to vibration was performed for 15 workers in three different working conditions (polishing on floor, stair and vertical wall). Following brain storming, CAD model and thereafter mock-up and prototype were developed from the final concept. Field trial of the redesigned polishing machine was carried out involving real users.

**Results** Following analysis and interpretation of the responses against the questionnaire, it was found that workers had been exposed to a high level of hand-arm vibration, adopting awkward postures, performing strenuous repetitive activities for prolonged duration which ultimately imposed adverse impact on occupational health. Measurement of vibration transmission (in terms of intensity) to the wrist of the user before and after design intervention showed significant reduction.

**Discussion** The stone polishing machine was redesigned considering anthropometric and biomechanical compatibility to reduce biomechanical stress associated with hand and arm of the operators. A supportive mechanism was provided to avoid sustained load holding during polishing to reduce hand-arm fatigue. Handle grip was coated with rubber as vibration dampening material to reduce the vibration transmission to arm. The modified design with better usability and aesthetic look was liked by the users. It was evident from their higher comparative ratings against the existing design.

#### 211 GOOD WORK ABILITY OF THE UNEMPLOYED: ASSESSMENT BASED ON LENGTH OF UNEMPLOYMENT

<sup>1</sup>Marja Hult\*, <sup>1,2</sup>Anna-Maija Pietilä, <sup>1</sup>Terhi Saaranen. <sup>1</sup>University of Eastern Finland, Kuopio, Finland; <sup>2</sup>Kuopio Social and Healthcare Services, Kuopio, Finland

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**Introduction** Work ability of the unemployed is lower compared to their working counterparts and it significantly drops after two years of unemployment. This study aims to examine factors that are associated with good work ability based on length of unemployment.

**Methods** This study uses the data from 1981 unemployed or laid-off persons who responded to Finnish nationwide Regional Health and Well-being Study in 2014–2015. Logistic regression, adjusted for age and gender, was applied to analyse the association of several health and wellbeing factors, health behaviours, and work-related factors with good work ability, which was measured with Work Ability Score.

**Result** Short-term unemployed had significantly better work ability than long-term unemployed. For both groups, good self-rated health (short-term unemployed: OR 9.81, 95% CI: 4.34 to 22.17; long-term unemployed: OR 9.69, 95% CI: 3.93 to 23.40), high intense physical exercise (short-term: OR 4.27, 95% CI: 1.64 to 11.16; long-term: OR 2.89, 95% CI: 1.04 to 8.05), and belief in continuing to work until the retirement age (short-term: OR 11.75, 95% CI: 5.10 to 27.09; long-term: OR 8.47, 95% CI: 2.87 to 25.01) were associated with good work ability. For short-term unemployed, a former employment status as a wage or salary earner (OR

4.62, 95% CI: 1.45 to 14.76); and for long-term unemployed, good mental health (OR 7.36, 95% CI: 2.20 to 24.61) and good quality of life (OR 4.81, 95% CI: 1.75 to 13.20), were also associated with good work ability.

**Discussion** Despite the length of unemployment, good work ability seems to associate strongly with a belief that person could continue working until the retirement age. Health is a substantial resource of work ability for both groups, but for long-term unemployed in particular, work ability is strongly involved in overall wellbeing and quality of life. The importance of physical activity should be highlighted when designing interventions for promoting work ability of unemployed persons.

#### 1575 GENDER BASED VIOLENCE (GBV) AND OCCUPATIONAL SAFETY AND HEALTH CULTURE

<sup>1,2,3,4</sup>Khayongo Barbra Clara. <sup>1</sup>International Commission on Occupational Health (ICOH); <sup>2</sup>Allied Health Workers' Association, Kampala, Uganda; <sup>3</sup>Uganda Community and Occupational Health Association; <sup>4</sup>Ministry of Gender, Labour and Social Development; Kampala, Uganda

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**Introduction** Global evidence increasingly acknowledges the costs to GBV survivors and employers alike and the need for strategies to improve employees' safety at work and to reduce economic losses associated with employee's GBV perpetration or victimisation (Heise, *et al.*, 2008). With the increasing strides by developing countries such as Uganda to achieve its mid-income status, there is increased efforts to boost the infrastructure sector though less focus has been put on balancing social risks and safety and health culture.

**Study design;** This was an explorative study that used qualitative data collection and analysis methods.

**Results** Amidst the high poverty indices and limited job security, workers in infrastructure endure all forms of violence ranging from verbal abuses, long working hours, sexual violence, working in hazardous environment and poor welfare services among other. The lack of grievance mediation modalities have exaggerated these violence thus contributing to increased fatal or non-fatal injuries, lost productivity time and damage to corporate image.

**Discussion** Sadly many forms of GBV in the workplace are not reflected in official records of employers neither are they rendered due justice by the police or courts of law. This lack of reporting is due to the lack of trust to exercise impartiality or some female workers feeling constrained to remain silent about their victimisation because of fear of reprisals against them, including the possibility of losing their livelihood.

This presentation seeks to explore Gender Based Violence and safety and health culture in the workplace and community.

#### 246 JOB INSECURITY AND PERCEIVED EMPLOYABILITY: A COMPARISON OF PUBLIC AND PRIVATE SECTOR

H Koren, K Dežmar Krainz, K Bradvica, M Bubaš. Croatian Institute for Health Protection and Safety at Work, Zagreb, Croatia

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**Introduction** Job insecurity is one of the most important work stressors related to poor health and wellbeing. On the contrary, perceived employability is considered to be a resource increasing workers' control over working life and buffering