

handled by women colleagues in the team, particularly in occupational health and safety.

**1657e** **PREDOMINANCE OF MUSCULOSKELETAL AILMENTS AND ALLIED WORK-RELATED CONTRIBUTING FACTORS AMONGST CONSTRUCTION LABOURERS OF WEST BENGAL, INDIA**

Arijit Chatterjee, Koumi Dutta, Subhashis Sahu. *Ergonomics and Occupational Physiology Laboratory, Department of Physiology, University of Kalyani, Kalyani, India*

10.1136/oemed-2018-ICOHabstracts.232

**Introduction** An enormous number of labourers engaged in construction industry in India both in organised and unorganised sectors. The construction labourers regularly work for a broadened time frame and they are compelled to maintain adjusted static and dynamic working positions in unbalanced locations during the total time of work which raises the demand of the musculoskeletal system and may lead to work related musculoskeletal ailments.

**Objective** This study is proposed to investigate the operational position and work related musculoskeletal ailments among the construction workers. One eighty four male workers from various construction sites of West Bengal was indiscriminately taken for this study.

**Methods** A modified Nordic questionnaire on MSD and the 12 item General Health Questionnaire (GHQ12) were administered on the construction labourers. REBA and OWAS posture analysis techniques were applied to evaluate the awkward postures. At last, discomfort levels of the particular working positions were figured by the use of risk level and BPD scale.

**Results** From the study it was uncovered that the greater part of the construction labourers frequently in unbalanced and awkward working position and were allied by different work-related contributing factors like pain in low back, neck, and wrist. It has been likewise discovered that there is a significant ( $p < 0.05$ ) association between the intensity of pain feeling, age, year of working experience and risk level of the individual working postures of the labourers.

**Conclusion** Suitable work-rest schedule, revisions of some working techniques and use of some ergonomically modified tools may decrease the WMSDs and enhance the health eminence and wellbeing distinction of construction labourers in unorganised sectors.

**1597** **PARTICIPATORY APPROACH IMPROVING SAFETY AND HEALTH IN CONSTRUCTION INDUSTRY**

Henk F van der Molen\*. *Academic Medical Center, University of Amsterdam, Department Coronel Institute of Occupational Health, Amsterdam Public Health research institute, Amsterdam, The Netherlands*

10.1136/oemed-2018-ICOHabstracts.233

**Aim of special session** Utility and feasibility of participatory approaches to increase health and safety measures at (construction) worksites.

<sup>1</sup>Maaik Huysmans PhD, <sup>2</sup>Jack Dennerlein PhD, <sup>3</sup>Dwayne van Eerd PhD, <sup>4</sup>Ann Marie Dale PhD, <sup>5</sup>Henk F van der Molen PhD

<sup>1</sup>Department of Public and Occupational Health, VU University Medical Center, Amsterdam, The Netherlands

<sup>2</sup>Bouvé College of Health Sciences, Northeastern University, Boston MA, USA

<sup>3</sup>Institute for Work & Health, Toronto, Canada

<sup>4</sup>Division of General Medical Sciences, Washington University School of Medicine in St. Louis, St. Louis, MO, USA

<sup>5</sup>Academic Medical Center, University of Amsterdam, Department: Coronel Institute of Occupational Health, Amsterdam Public Health research institute, Amsterdam, The Netherlands

**1597a** **DEVELOPMENT OF A GUIDELINE 'PARTICIPATORY APPROACH AT THE WORKPLACE' IN THE NETHERLANDS**

<sup>1,2,3</sup>Maaik Huysmans\*, <sup>1,2,3</sup>Frederieke Schaafsma, <sup>1,2,3</sup>Han Anema. <sup>1</sup>Department of Public and Occupational Health, VU University Medical Centre, Amsterdam, The Netherlands; <sup>2</sup>Amsterdam Public Health research institute, Amsterdam, The Netherlands; <sup>3</sup>Research Centre for Insurance Medicine, AMC-UMCG-UWV-VUmc, Amsterdam, The Netherlands

10.1136/oemed-2018-ICOHabstracts.234

**Introduction** In the Netherlands, we aimed to develop a multidisciplinary guideline for the Participatory Approach (PA) at the Workplace, in collaboration with insurance physicians, work experts, occupational health physicians, occupational health nurses, occupational hygienists, and occupational therapists.

**Methods** A working group of representatives from all 7 participating professions defined the topics that needed to be addressed by the guideline. When possible the guideline was based on scientific evidence. In case of none or insufficient scientific evidence, the working group formulated an expert opinion. After incorporating feedback from experts in the field the concept guideline was finalised. This whole process was supervised by a steering committee.

**Results** In the guideline, PA was defined as a systematic approach consisting of six predefined steps in which worker(s) and relevant stakeholders (e.g. supervisors or employer) reach consensus on the main problems and solutions for the worker (s)'s health problems and work participation. This results in an action plan defining who does what and when. One should start (step 1) with creating the right conditions and end with a proper evaluation of the pre-set goals (step 6). The guideline can be used to apply the PA at an organisational (mainly primary prevention and targeting groups of workers) or an individual level (treatment and re-integration of the individual worker). Our systematic literature review showed that the PA at an organisational level was effective for improving (determinants of) behaviour, reducing musculoskeletal symptoms, improving work performance, reducing sick leave and reducing costs. At the individual level the PA appeared especially effective to reduce sick leave and fasten return-to-work.

**Discussion** We successfully developed an evidence-based multidisciplinary guideline for the Participatory Approach at the Workplace. Currently, we face the challenge of successfully implementing the guideline in practice by arranging authorisation among the professional groups and giving trainings in the field.

**1597b** **IMPROVING EMPLOYEE INVOLVEMENT THROUGH SAFETY COMMUNICATION**

<sup>1</sup>Jack T Dennerlein\*, <sup>2</sup>Emily H Sparer. <sup>1</sup>Bouvé College of Health Sciences, Northeastern University, Boston, MA USA; <sup>2</sup>Harvard T.H. Chan School of Public Health, Boston, MA, USA

10.1136/oemed-2018-ICOHabstracts.235