Work Disability Prevention and Integration

1019 INJURY SEVERITY, RETURN TO WORK, AND DISABILITY IN OCCUPATIONAL INJURY- DOES COMMUNITY HEALTH PLAY A ROLE?

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Introduction Workers' compensation data provide a source of information on occupational injuries and their burden on workers and the workplace. Many factors may influence ultimate outcome of the claim and disability status, including those external from the workplace. Occupational injury outcomes may be influenced by the health of communities in which employees live. We explored an exciting injury surveillance and analysis technique by coupling geographical information systems (GIS), workers' compensation data, and community health assessment data to determine novel risk factors for occupational injury outcomes.

Methods Injured employee addresses from workers' compensation data were geocoded using Esri Street Map. Geographic masking maintained individual-level confidentiality. Community health assessment categories included: health opportunities, healthy living, chronic disease/conditions, infectious disease, and injury and violence. We calculated rates and comparative risk of severity and disability duration of workers' compensation claims based on community health assessment status. Using a negative binomial model, we estimated rate ratios (RR) and 95% confidence intervals (CI) as a function of claim rate. Cox proportional hazards regression assessed differences in duration of disability based on community health assessment status and estimated hazard ratios (HR) and 95% confidence intervals (CI).

Results Multiple categories of assessed community health indicators affected risk of severity, claim duration, and disability for occupational injury.

Discussion This innovative way of combining and visualising data may identify risk factors for occupational injury that may be spatially or community-based. The health of one's community may play a role in both personal and occupational health. A holistic, total worker view should be considered for prevention of disability in workers' compensation claims.

106 THE IMPACT OF THE NEW LEGISLATION ON RETURN TO WORK IN BELGIUM. EXPERIENCES OF A LARGE OCCUPATIONAL HEALTH SERVICE

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Introduction In order to prevent long-term sickness, Belgian authorities reformed legislation on return to work (RTW). From 2017, employees have access to the occupational health physicians (OHP) to support their RTW. In addition, employers, general practitioners and medical advisors can refer to OHP for disability assessment. In this study, we investigated for which diseases and conditions, RTW was most successful.

Methods RTW trajectories carried out by IDEWE, one of the largest Occupational Health Services, were analysed.

Differences according to gender, applicant, company size, duration and cause of absence were calculated and compared using Chi Square test.

Results 506 completed RTW trajectories were available for analysis: 33,2% for male employees, 66,8% for women. 59,3% was initiated by the employee and 31,6% by the employer. Most trajectories (29,2%) were initiated in large companies, but 23,9% was carried out in companies with less than 20 employees. Mental disorders (35,5%) and musculoskeletal problems (33,1%) represent 2/3 of the causes, which corresponds with the main causes of long-term sickness absence in Belgium.

For 28,3%, the occupational physician could realise return to work after making adjustments on the job. However, 60,5% could no longer be re-employed at the same workplace (no possible job-person fit anymore). Re-integration appeared more successful for musculoskeletal disorders (37,5%) than for mental problems (only 16,6%). Finally, the chance on effective return to work reduced with duration of sickness absence. No significant differences in outcome were observed according to gender.

Discussion Re-integration was realised with the guidance of the OHP for almost 30% of the trajectories. RTW is most challenging for mental disorders: guidance to re-employment into a more suitable job is indispensable to avoid long-term absence. In order to achieve this, cooperation with medical advisers can be explored.

1114 PREDICTING LOST PRODUCTIVE TIME AND MEDICAL COST DUE TO POOR PSYCHOSOCIAL WORKING CONDITIONS: A ONE-YEAR PROSPECTIVE STUDY

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Introduction It is still not clear how much future excess cost for employers and the society are related to the poor psychosocial working conditions. Such prediction may be useful to prioritise interventions to improve psychosocial working conditions in the workplace.

Methods A baseline survey was conducted of Japanese monitors registered to an Internet survey company who were employed (in December 2015 or February 2016). Out of 5150 respondents, 3875 full-time employees were surveyed about one year later (in December 2016). The questionnaire asked respondents their psychosocial working conditions: job strain (the ratio of job demands to job control), interpersonal conflict, supervisor and coworker support, measured by the Brief Job Stress Questionnaire; and effort-reward imbalance, measured by a 10-item ERI questionnaire. The questionnaire also measured lost productive time that was converted into lost labour cost; and total medical expenditure in the past month assessed by TiC-P (Bouwman, *et al.*, 2013). Multiple linear regression analysis was conducted of the one-year increase in the total monthly cost at follow-up on the five psychosocial working conditions, adjusting for sex, age, occupation, and the cost at baseline.

Result A total of 2498 (64%) respondents completed the follow-up questionnaire; 43% were men; average age was 42 years old. Interpersonal conflict and ERI significantly and positively correlated with the increased total cost ($p < 0.001$, 8,278 JPY and 11,047 JPY, respectively, for 1SD change); coworker support significantly and negatively correlated ($p = 0.001$, -10,583 JPY for 1SD change). These three factors significantly correlated with lost labour cost ($p < 0.001$). ERI significantly and positively correlated with medical cost ($p = 0.030$).

Discussion Poor psychosocial work conditions well predicted excess labour and medical cost at one-year follow-up. Improving interpersonal conflict, ERI, or coworker support by 1SD of the score would benefit for saving the total cost of 8000 to 11,000 JPY per month.

1180 DURATION OF RETURN TO WORK AFTER MYOCARDIAL INFARCTION AND THE ASSOCIATED FACTORS AT NATIONAL CARDIOVASCULAR CENTRE HARAPAN KITA

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Introduction Myocardial infarction as a cardiac disease that has the highest fatality rate in Indonesia occurs in many working age population and causes temporary disability for work. Approximately 90 million working days are lost every year due to myocardial infarction. Many research showed that the unemployed condition is associated with a relative risk of mortality and increases the risk of death by almost 50%. However, Indonesia that has more than fifty million workers, has no reference to the duration of return to work after myocardial infarction.

Methods This cross-sectional study was conducted at National Cardiovascular Centre Harapan Kita. 130 employed out-patients were involved to this study by consecutive sampling method. The required data was gathered from general data questionnaires, DASS 42, Job Satisfaction Survey and medical records.

Results The median for the subjects' age was 55. 93,2% subjects were male and 6,8% were female. 74,2% subjects had sedentary job and 25,8% had an active job. Among them, 45,5% had PCI and 54,5% had conservative treatment. The median duration for return to work was 14 days. Based on linear regression analysis, subjects with active job have longer return to work duration ($p = 0.004$), those with EF $< 40\%$ have longer return to work duration ($p = 0.02$), and those with longer hospitalisation duration also have longer return to work duration ($p = 0.004$). Depression, anxiety, and job satisfaction did not associated with return to work duration.

Conclusion The successful of return to work after myocardial infarction needs a precise evaluation on type of job, left ventricular ejection fraction, and hospitalisation duration by an occupational medicine specialist and cardiologist. Different from another country, psychologic factors is not associated to return to work duration after myocardial infarction in Indonesia, thus the prevention for longer disability after myocardial infarction should be focusing on clinical and occupational factors.

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DEVELOPMENTAL EVALUATION: A FRUITFUL STRATEGY FOR IMPLEMENTING AND EVALUATING A WORK REHABILITATION PROGRAM FOR WORKERS WITH COMMON MENTAL DISORDERS

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Introduction In Canada, few early work rehabilitation services are offered to prevent long-term work disability due to common mental disorders (CMD), despite population-level needs. Our study aimed to support and evaluate the implementation and effects of an innovative program designed to promote post-CMD return-to-work (RTW) in primary healthcare.

Methods A developmental evaluation approach (Patton, 2011) was retained. Main implementation strategies consisted of periodically revising the program's logic model and discussing its underlying theory of change with clinicians. Data collection tools included: dashboards of activities conducted with participants ($n = 41$); interviews with participants upon discharge ($n = 26$) and 6 months post-discharge ($n = 24$); questionnaires completed by attending physicians ($n = 18$). Quantitative data underwent descriptive statistical analyses, while qualitative data underwent thematic analysis. Results were presented and discussed periodically with clinicians to ensure their credibility.

Result The implemented program included group interventions, one-on-one interventions, and concerted actions with partners. Participants began the program after 5 months of sick leave on average, and participated for 10 ± 2 weeks. 80% of cases included concerted actions, usually with insurers and rarely attending physicians. However, virtually all the physicians saw the program as meeting needs and promoting RTW. Active components identified by participants concerned primarily the interventions' group format, but also activities, and clinicians themselves. In terms of the program's final expected outcome, 69% of the participants returned to work upon discharge and 79% were at work 6 months post-discharge.

Discussion The program studied is based on the best scientific evidence and is feasible in a primary healthcare context. Results suggest that it facilitates a sustainable RTW of workers with a CMD and that it supports physicians in their interventions with this population. While additional work is required to demonstrate its effectiveness, current results suggest that a group format is an important intervention component for this target population.

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WHAT ARE THE ACTIVE COMPONENTS OF A WORK REHABILITATION PROGRAM ACCORDING TO WORKERS SICK-LISTED FOR A COMMON MENTAL DISORDER?

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Introduction Common mental disorders (CMDs) are highly prevalent and a leading cause of work disability. Although specialised programs are now offered to prevent these workers from developing long-term work disability, little is known