

Introduction Mental illnesses are common among general population. They are responsible for decreased quality of life, work absenteeism, premature deaths and increasing costs for health systems. Mental diseases can be caused or aggravated by occupational factors and might increase the risk of accidents in the mining industry, if they are not properly detected and treated. The aim of this study was to estimate the association between distress and psychosocial risk at work in a mining company in Valparaiso region, Chile.

Methods A cross-sectional study was conducted during 2014–2015 in Andina Division, located in Los Andes, Chile. 343 mining workers were invited to participate (response rate 99.7%), classified according to work-tasks into operative (n=253) and administrative workers (n=79). The adapted survey of Working Conditions and Health in Latin America, GHQ-12 (Goldberg's health questionnaire) of mental symptoms and ISTAS-21 questionnaire of psychosocial risk were applied. The main outcome was distress (GHQ-12 ≥ 5). Descriptive, bivariate (chi² test) and logistic regression (multivariate) analyses controlling for potential confounding factors were performed.

Results Prevalence of distress was 23.6%. Sensitivity analysis (GHQ-12 ≥ 7) showed a prevalence of potential mental illness of 8.6%. No differences were observed between workers from main company and subcontractors or between operative and administrative workers. Not being able to concentrate (43%), feeling under stress (43%) and losing much sleep (35%) were the most frequently reported. In bivariate analysis, a statistically significant association was found between the presence of distress and high strain jobs (27.5%; p=0.02). No statistically significant association was found between low job security or type of job and distress. In logistic regression analysis, workers in high strain jobs (OR:2.02; 95% CI: 1.10 to 3.71) were at increased odds of distress, compared to low strain jobs.

Discussion High strain jobs might be related to distress in Chilean miners. The causes declared for distress could increase the risk of accidents in mining industry.

1104 CONTRIBUTION OF JOB SATISFACTION AND OVERTIME WORK TO MENTAL HEALTH: 1-YEAR FOLLOW-UP STUDY

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Introduction Overtime work has been suspected as a risk factor for workers' mental distress. A recent cross-sectional study showed that job satisfaction and overtime work could modify the association with mental health in a direct and combined manner (Nakata, 2017). Thus, we have examined the association between job satisfaction and overtime work with mental health using a longitudinal study to explore of causal relationships.

Methods Participants were 1,558 Japanese IT (information technology) workers. Each completed the General Health Questionnaire (GHQ, 28-item version) and Brief Job Stress Questionnaire (BJSQ, index for job strain and job supports)

and indicated job satisfaction in 2011 and 2012. Actual amount of overtime work during 3 months in 2011 was recorded by the company. A total of 1408 respondents completed questionnaires and 758 participants were excluded from this analysis because of high GHQ scores (GHQ >5, indicating mental distress) in 2011. Finally, 650 participants were used for the evaluation. Risk of mental distress in 2012 by overtime work, job satisfaction, and both combined was estimated by univariable and multivariable logistic regression analysis.

Result Compared to participants with high job satisfaction, those with low satisfaction had increased risk of mental distress in the following year (crude odds ratio (cOR): 1.75), but this difference became insignificant after adjusting for potential confounding factors such as job strain and job supports. Furthermore, there was no significant difference in the risk of mental distress for participants with or without overtime work. However, in the combined analysis, compared to participants with overtime work and high job satisfaction, those with overtime work and low job satisfaction had an increased risk of high GHQ scores (adjusted OR: 2.04).

Conclusion Present longitudinal data suggests that the combination of low job satisfaction and overtime work induces an increased risk of mental distress.

160 PSYCHOSOCIAL RISKS AND MENTAL HEALTH STATUS IN MANUFACTURING SECTOR WORKERS IN VENEZUELA

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Introduction Occupational Psychosocial Risk Factors (OPRF) studies are a priority because may trig physical/mental health-effects. National studies confirm international investigations where exposure to unhealthy conditions can constitute a problem. National work regulations emphasise that jobs should achieve psychological well-being. This study identified OPRF in four 'Manufacturing' companies in Venezuela, measuring exposure magnitude associating them with self-perceived mental health.

Methods Observational-descriptive, field study. Psychosocial Risk Assessment was used and CoPSoQ-ISTAS 21, PAST 2.7 c for analysis. Questionnaire evaluates six Dimensions and 20 Factors. Results express exposure's prevalence as the workers proportion in each situation: unfavourable (high risk), intermediate and favourable (low risk).

Results Sample 576 workers. In all DIMENSIONS no high risk was greater than 37%. Social Capital/Compensations had the highest unfavourable situation (36.78% and 35.91%, respectively). Employment insecurity (favourable 57.93%), Working conditions (favourable 57.87%), Recognition (unfavourable 45.48%). Emotional demands reported greater risk (41.09%). Leadership Quality 50.09% and Predictability 53.34%. 60% of variables had significant correlation with anxiety/depression.

Discussion and conclusion Psychosocial risks were identified with low magnitudes dimensionally but there were 6 factors in high risk. Siegrist 1996 showed that unbalance Effort/

Reward could damage health with stress repercussions. A high level of organisational justice has been linked to better mental health (Elovainio, *et al.*, 2002). Results agree with Rodriguez-Martinez (2011) and Rodriguez-Bracho (2013), regarding exposure to emotional demands, predictability and leadership quality. Avendaño, *et al* (2009) found that relationships quality with superiors are important to face daily stressors. This also may indicate that company' leaders lack of teams' surveillance, with insufficient information to carry out the work expressed by Predictability. However, Colleagues/Superiors Social support, Clarity/Conflict roles and group feeling, were in favourable conditions. Factors as work compensation, social capital, emotional demands, leadership and predictability, were with greater consequences in mental health and employers must use important resources to manage daily stressors.

80 PSYCHOLOGICAL RISK ASSESSMENT – BRIDGING THE RESEARCH-PRACTITIONER GAP

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Introduction Due to the consequences of globalisation and digitalization on working conditions, psychological risk factors at work rise in importance. Prevention strategies for designing working conditions that maintain mental health and work functioning are needed.

Only few companies worldwide have implemented psychological risk management regularly. One reason might be the lack of suitable measurement tools. Although, many researchers developed reliable assessment instruments for psychosocial stress at work, most of them fail in helping redesigning working conditions on the technical or organisational level. With the help of existing measurements mainly personal prevention actions are possible. Therefore an instrument is needed that measures the objective work factor and not the subjective stress of the employees.

The aim of this investigation is to develop and validate a practical online assessment of psychological risk at work according to scientific standards.

Methods From November 2015 to March 2016, psychological work factors that have impact on mental health were determined by means of literature searches, workshops and telephone interviews with experts. An online assessment was developed between April 2016 and September 2016. From October 2016 to March 2017 risk analyses were carried out by experts and employees on the basis of 10 pilot companies from the public sector (about 2000 respondents).

Results The online assessment provides statements on the work content, work organisation, social relations and the work environment. With 48 items, psychological work factors with regard to the task (not the person) are recorded with value-neutral formulations. The response scale is a 4-step frequency scale. First analyses prove the objectivity, reliability and validity of the instrument.

Conclusion The online assessment contains psychological work factors that can be generalised to any work tasks. It might be used across all sectors. The instrument measures psychological risk at work economically and largely independent of the individual response.

1011 WORK PROCESSES AND MENTAL SUFFERING: A QUANTITATIVE ANALYSIS FROM THE SAUVI BETIM SURVEY, BRAZIL (2014–2015)

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Introduction This study aimed to analyse associations between work processes and suffering in workers of the SAUVI-Betim survey. It is a cross-sectional study, which analysed data from this survey, conducted in the years 2014–2015 in the city of Betim Brazil. **Methods** Initially, general survey information was analysed comparing groups of workers and non-workers. Then, an analysis was made comprising only the group of workers (614 people). The statistical analysis included the application of the chi-square test in the contingency tables and the analysis of correspondences between 'Work' and 'Health' categories.

Results Statistical significance ($p < 0.05$) was found, mainly between being female and a higher frequency of depression, anxiety/other psychiatric problem and use of sleeping aids; being male and the positive CAGE result; 'separated/divorced' marital status and self-report of depression and use of sleeping aids; lower family incomes with self-reported depression; and the use of sleeping aids in the 50–59 age group. In addition, the correspondence analysis found the following associations: the consumption of alcoholic beverages was greater for those who carried out extensive journeys; the positive CAGE result was associated with worse working conditions; both the use of sleeping pills and the anxiety/other psychiatric problem was associated with night work; and self-reported depression was associated with overtime work.

Discussion This study pointed out that certain characteristics of the work processes were associated with the variables related to suffering in workers of the SAUVI survey. Other research that evaluates causation and investigates other variables should be conducted.

1134 DOES OPEN-PLAN OFFICES SUITE STAFF IN A PSYCHIATRIC CARE SETTING?

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Introduction In 2013, all psychiatric units (in-and outpatient) in Uppsala, Sweden, were relocated together into a new building at the hospital area. 500 employees moved from mainly cell offices to open design offices without flexible seating. Occupational medicine made an evaluation to investigate how the psychosocial work environment was affected by the change.

Methods Semi structured focus groups interviews, with a total of eight group interviews, four months before the relocation and 14 months after. The groups were divided by professional groups such as nurses, physicians, psychologists and in administrative groups such as managers, management team and staff. The participants were randomly invited to the interviews, all together 55 persons participated before, and 46 persons after the relocation. The interviews were transcribed and analysed using qualitative data analysis.

Results Overall, the staff experienced difficulties performing their duties in an optimal way in the open workplaces. Both