attempted to examine relationship between perception of work-related stress and ill-health symptoms among the study sample.

Methods Responses from 81 nurses from three hospitals in Mumbai were studied.

'Stress Scale' was designed with the help of two survey instruments – 'Nurses Stress Scale' developed in 1981 by Grey-Toft and 'A to Z test on the occupational sources of stress' developed by Asis K.Chakrabarti, ex-Director (Industrial Psychology) at Central Labour Institute, Mumbai.

Questionnaire method of data collection was adopted ensuring absolute confidentiality to protect identity, to ensure honesty in responding, and to obtain a reasonable response rate.

Statistical analysis of correlation was utilised to verify the results to prove the relationship between the perception of stress and ill-health symptoms among hospital nurses.

Results There exists a significant positive correlation between perception of occupational stress and psychosomatic symptoms among nurses. Psychosomatic disorders like backache, neck stiffness, and increased consumption of caffeinated products significantly increased in nurses having higher stress scores.

Discussion Moderate levels of stress were seen in a majority of nurses. It has been established that incidence of psychosomatic illness increases with the level of stress. Healthcare organisations need to urgently take preemptive steps to counter this problem in view of acute shortage of trained nurses. Without a comprehensive plan to deal with the issue, the problem may escalate into risks to patients and other consumers.

378 PREVALENCE OF BURNOUT SYNDROME AMONG SURGICAL RESUSCITATION STAFF AT THE CHU SYLVANUS OLYMPIO (TOGO)

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Introduction Burn out or burnout syndrome is a state of emotional exhaustion, dehumanisation of relationship to other, and decreased performance in response to chronic occupational stress.

Methods This is a descriptive and analytical cross-sectional study carried out among the practitioners of all the resuscitation departments of the CHU Sylvanus Olympio in Lomé.

Results The caregivers were divided into 11 physicians, 9 medical interns, 7 senior anaesthesia technicians, 1 resuscitation anaesthesia master, 50 state nurses, 1 masseur and physiotherapist. 35 (44.30%) had a high level of emotional exhaustion. Burn out was found in 69.60% of caregivers, of whom 17 (21.50%) had a moderate burnout and 3 (3.80%), a high level of burn out. The causes significantly related to the occurrence of burn out were: lack of resources (diagnostic and therapeutic tools) ($p=0.00005$), reduced staff size ($p=0.00004$), poor organisation of the service ($p=0.0004$).

Discussion In our study, the prevalence of burnout was 69.60% of the nursing staff. In Morocco, AOUNTI Lotfi found in 2014 that 79.10% of caregivers working in the resuscitation departments of the anaesthesia resuscitation department of the CHU Hassan II in Fez were burning out.

418 PSYCHOSOCIAL FACTORS IN MEDICAL STUDENTS PREDICT HIGHER BURNOUT LEVELS

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Introduction The aim of the study was to determine stress factors related to medical education as predictors of burnout in medical students (MS) in the 5th year of studying, just before entering the world of work.

Methods Actual cross-sectional study was conducted by the Institute of Occupational Health of RM, including 165 MS in the 5th year of medical studies. Medical Student Stressor Questionnaire, Maslach Burnout Inventory, and Socio-economic and Studying Conditions Questionnaire were used. Multiple regression models were tested to examine the associations of stress factors related to medical education to burnout dimensions controlling for age, learning hours/week, and interpersonal relationships with parents/friends.

Results Bivariate analyses showed significant positive correlations of burnout dimensions with all domains of MS stressors. Emotional exhaustion demonstrated significant positive correlations with learning hours/week ($r=0.234$, $p=0.003$), and poorer interpersonal relationships with parents ($r=0.193$, $p=0.014$) and friends ($r=0.343$, $p<0.001$), while depersonalization only with poorer interpersonal relationships with friends ($r=0.258$, $p=0.001$). Multiple regression analyses revealed that domain Academic related stressors (examination systems, academic schedule, getting poor marks, high-self expectation to do well, large amount of content to be studied, lack of time, etc.) (Standardised Beta= 0.359 , $p=0.006$), poorer interpersonal relationships with friends (Standardised Beta= 0.244 , $p=0.001$), and learning hours/week (Standardised Beta= 0.140 , $p=0.044$) were significant predictors of higher emotional exhaustion ($R^2=0.418$). On the other hand, only poorer interpersonal relationships with friends positively predicted depersonalization (Standardised Beta= 0.197 , $p=0.019$) ($R^2=0.159$).

Discussion Actual study shows that psychosocial factors in MS entering the world of work are related to higher burnout scores. Preventive strategy oriented towards improvement of health and safety at work in physicians should involve measures for tackling academic related stressors in MS in order to reduce later burnout development.

42 EVIDENCE THAT A STATE-WIDE PAID SICK LEAVE POLICY REDUCES OCCUPATIONAL INJURIES AND ILLNESSES

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Introduction Unlike almost all other developed countries, paid sick leave is not mandatory for employers in the United States. Several states and municipalities have introduced paid sick leave policies. The first states to introduce such a policy was Connecticut, which passed a law requiring that employers offer 'service workers' one hour of paid sick leave for every

40 hours worked beginning in 2012. One previous study using a national survey found that workers who had paid sick leave were less likely to sustain nonfatal occupational injuries compared to those without paid sick leave. This study seeks to determine whether there has been a decrease in the rate of occupational injuries and illnesses in Connecticut following the introduction of their paid sick leave policy.

Methods Data about the overall rate of occupational illnesses and injuries and occupation and industry specific rates were obtained from the Bureau of Labour Statistics' Survey of Occupational Injuries and Illnesses for Connecticut and compared to rates for the United States overall and five other northeastern states. For all of the states and for the United States, the change in the average annual rate of occupational injuries and illnesses was compared for the four years before and after the introduction of Connecticut's paid sick leave policy.

Results The decline in the rate of occupational injuries and illnesses per 100 full-time workers was greater in Connecticut (17.1%, 95% Confidence Interval=9.5% to 24.6%) than the decline in any of the other states or the United States overall. The percent decline differed by occupation and industry.

Conclusion There seems to have been an impact of Connecticut's paid sick leave policy on the rate of occupational injuries and illnesses pointing to potential additional benefits of these policies. Studying the impact of other states' paid sick leave policies will be important in the future.

422 FURTHER DEVELOPING THE PSYCHOSOCIAL SAFETY CLIMATE TOOL BY APPLYING MIXED METHODS

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10.1136/oemed-2018-ICOHabstracts.1649

Introduction Psychosocial Safety Climate (PSC) – a specific dimension of organisational climate – refers to shared perceptions regarding policies for the protection of worker psychological health and safety (Hall, Dollard & Coward, 2010) and is considered to comprise four content domains. The objective of the current study is to further develop the PSC instrument by investigating its validity, i.e. the comprehensibility of the PSC items, in another culture and language than where it was originally developed.

Methods The study follows a mixed-method approach. After translating the original English PSC items into German, they were revised by experts on work and health, focusing on the meaning and practical use of terms, the frame of reference and differences in legislation. To obtain a wider coverage of the underlying dimensions, further items were added.

Cognitive interview techniques (think-aloud, probing) with 25 employees of different occupations, tenure and age were applied on this enhanced version of the PSC instrument, leading to a preliminary revised PSC tool.

In the quantitative main study currently underway, this revised PSC tool is applied in a sample of more than 2000 employees from different organisations and branches to test the structure of the instrument, its assumed multi-level nature and its relations with other psychosocial working conditions and relevant health measures.

Result The cognitive interviews indicated that the term 'psychological health' is not well understood by German employees and requires a definition. Moreover, several items required adaptations in wording to ensure similar understanding among employees with different backgrounds. Preliminary results from the main study support the tool's reliability and validity in the German context.

Discussion This study demonstrates the benefits of applying both cognitive interview techniques and a quantitative survey in instrument adaptation and testing. The revised PSC tool will allow for a stronger cross-cultural use of the PSC concept.

423 DO PERCEPTIONS OF CONTROL INFLUENCE INDUSTRIAL WORKERS' ENGAGEMENT IN OCCUPATIONAL HEALTH AND SAFETY?

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Introduction This investigation focused on perceptions of control and its potential influence on engagement in occupational health and safety by industrial workers, and highlight the much needed attention to this important group of employees. The study aimed to address the main question of the research: to what extent do perceptions of control explain the engagement in occupational health and safety by industrial workers, and what are the perceived barriers to sustainable engagement experienced by this group of workers?

Methods The mixed method quantitative-qualitative approach aimed to identify how the value and impact of the locus of control external/powerful others versus the intrinsic values perceived to be held by an individual, can contribute to the perceived causes and barriers to sustainable engagement in health and safety by workers in a contemporary industrial setting

Two variants of the locus of control construct were selected as the measurement tools for the quantitative investigation. The multidimensional Internal-Powerful Others-Chance (IPC), (Levenson 1973) scale to assess the generic personality orientations, and the domain specific Work Locus of Control scale (WLCS), (Spector 1988) was selected to identify potential context specific criteria.

Following the results of the quantitative survey qualitative in-depth interviews were conducted to detect potential influences perceived by the workers to engagement in health and safety.

Results The quantitative findings (n=167) identified an incongruity between the inherent internality of the IPC scales and the internality variable of the WLCS suggesting an internal orientated workforce demonstrating less internality at the workplace. Interviews (n=10) provided in-depth perspectives including potential barriers to sustainable engagement in health and safety activities.

Conclusions The quantitative findings indicate perceptions of control amongst an industrial workforce could relate to the engagement in occupational health and safety, and the qualitative interviews allowed for identification of perceptions related to occupational health and safety as experienced by this group of workers