cancer, heart diseases, renal diseases, and diabetics based on workers exposure profile.

P-31 FACTORS ASSOCIATED WITH MUSCULOSKELETAL SYMPTOMS IN WORKING WOMEN OF FLOWER CROPS OF LA SABANA NORTH OF CUNDINAMARCA.

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Introduction Musculoskeletal disorders are multifactorial and a public health problem. They occur in different production sectors, but information is scarce in the flower-producing industry.

Aim To analyze factors associated with musculoskeletal symptoms in floriculture workers of the northern savannah of Cundinamarca in 2016.

Materials and Method This cross-sectional study was carried out in a non-random sample of 84 cultivators (production, packing and storage) of ornamental flowers for export in the savanna north of Cundinamarca. The sociodemographic variables, the informed consent and the Nordic questionnaire were obtained through a survey. Statistical analyses were performed in SPSS version 24.

Results Participating women had a mean age of 41.744 (SD = 10.64) and seniority in the development of activities between 1 to 27 years. Statistically significant correlations were found between head/eye symptoms and active pauses $r = -0.491$, $p < 0.05$; neck and race $R\ 0.234$ $p < 0.05$; neck and have free time at home $r = -0.391$, $p < 0.01$; Shoulder and workplace (less exposure) $r = -0.257$, $p < 0.05$; wrist hand and active pauses $r = -0.283$, $p < 0.01$, active pauses with stretching (exposure) $r = 0.283$, $p < 0.01$; upper back and have time for active breaks $r = -0.218$, $p < 0.05$; upper back and being able to sit up during breaks $r = 0.255$, $p < 0.05$; upper back and have free time at home $r = -0.235$, $p < 0.05$; right knee and lifting load $r = 0.323$, $p < 0.01$; right knee and have free time at home $r = -0.391$, $p < 0.01$.

Conclusion Findings indicate positive correlations between race, sitting during breaks, lifting, and musculoskeletal symptoms; and negative correlations between taking active breaks, having free time at home, workplace, taking active breaks, taking active breaks with stretching, having time for active breaks, having free time at home, and musculoskeletal symptoms in flower women.

P-36 ORGANIZATIONAL INDICES OF BURNOUT INVOLVING NATURE OF TASK, HAZARD EXPOSURE, AND NATURE OF MANAGEMENT AMONG FEMALE FACTORY WORKERS

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Objectives This study aims to look at the organizational indices of 'burnout' among Filipino female factory workers in the Philippines. They have been faced with multiple work arrangements coupled by exposure to hazards in the workplace that may compound their perception and experience of burnout.

Methods Secondary analysis on a research study was conducted on a wide range of socio-demographic, health and occupational data on 344 female factory workers. The database was a cross-sectional study involving 344 female factory workers. Multiple logistic regressions were used to study the overall association of interest, simultaneously controlling for all confounders.

Results The results of the study showed that 60% of female workers reported burnout. The highest mean scores for nature of tasks were obtained for repetitive works (1.3172 ± 0.8905), and works that regularly require new quality (1.6193 ± 0.7628). In terms of self-reported illnesses, the following yielded the highest means which implies greater occurrence; headaches (0.7733 ± 0.4193), body aches (0.7442 ± 0.4370), and coughs and colds (0.6948 ± 0.4612). The number of illnesses in the last 6 months was found to be associated with organizational correlates of burnout namely- Nature of Task Component 1 ($\beta=1.298$; $p < 0.01$); Job Autonomy Component 1 ($\beta=1.112$; $p < 0.05$); Workplace Hazards Component 1 (fumes, vapors, noise) ($\beta=1.147$; $p < 0.01$); Workplace Hazards Component 2 (odors, high temperatures) ($\beta=1.153$; $p < 0.05$); and Workplace Hazards 3 (dust, standing) ($\beta=1.091$; $p < 0.01$). It was observed that an increase of 1 in the score for Workplace Hazards 1 implies 121.4% increase in the odds of having sickness often as opposed to seldom.

Conclusion The results of this study revealed that the nature of a factory worker's work is causing burnout and adverse health.

P-40 OCCUPATIONAL EXPOSURE TO PESTICIDES AMONG VEGETABLE FARMERS IN AKUAPEM NORTH MUNICIPALITY

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Introduction According to the Stockholm convention on persistent organic pollutant, 9 of the 12 most dangerous persistent chemicals are pesticides (Chekroun et al., 2014).

Objectives To assess knowledge, practice and attitudes regarding safe use of pesticides and toxicity awareness among vegetable farmers.

Methods A cross-sectional study of 100 vegetable farmers was conducted between November to December 2016. Data collection involved administration of standardized questionnaire to farmers on knowledge, safe use of pesticides and toxicity awareness.

Results Results of the field survey indicated that 48% (95% CI=38–58) did not use any protective clothing such as goggles, gloves, long boots. Among the respondent 93% (95% CI=85–96) go back to the farm in less than 24 hours after pesticide application. As a result of pesticide exposure, about 67% (95% CI=56–75) of farmers experienced various kind of discomfort including headache, tingling or burning of skin, irritation of skin and or eye. Most farmers 65% (95% CI 54–73). Apply pesticides in mixtures that is farmers mix pesticides with different active ingredients in one machine for application. Farmers were exposed to 12 pesticides active ingredient.

Conclusion Based on the analyses it can be concluded that most of farmers' involved in vegetable farming in the Akwapim North Municipality are in the middle age group. Almost all the farmers use pesticides in their farming activities.

Pesticides and other agrochemical were found to be within reach of farmers who get their supplies from agrochemical dealers at their farms and homes. Farmers who apply pesticides in mixtures were of the view that tank mixing was favourable because it saves time, labour and cost since more than one pesticide could be applied in a single supply. Farmers generally were aware of the potential adverse impacts of pesticide deposition on the environment but didn't know it have adverse health effect on human. Most farmers stored agrochemicals in multipurpose storage structures together.

P-44 THE ASSOCIATION BETWEEN NIGHT SHIFT WORK AND CARDIOVASCULAR AND ENDOCRINE DISEASES IN HEALTHCARE WORKERS IN BULGARIA

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Introduction The prevalence of shiftwork is especially high with hospital healthcare workers. A number of epidemiological studies have found an association between night shift work, and cardiovascular (CVD) and endocrine diseases, involving circadian, behavior and social characteristics.

Objectives The aim of the study was to investigate the association between night shift work and cardiovascular and endocrine diseases in hospital healthcare workers in Bulgaria and possible mediating factors.

Methods The study included 2690 healthcare workers with an average age of 48.0 ± 12.0 years and an average length of service 24.8 ± 12.7 years, from 19 hospitals with >150 beds in Sofia, Bulgaria. A self-administered questionnaire was used to gather information about demographic, physical and behavioral characteristics, previous and current work schedules, and the health status of healthcare workers.

Results The worker group with the highest prevalence with CVD was ex-night shift workers (35.3%), followed by night shift workers (24.4%) and the lowest with day workers (16.3%). The OR for developing a CVD for night workers was 1.98 (95% CI: 1.26–3.13); and endocrine diseases, 1.33 (95% CI: 0.83–2.12). The development of CVD was related to age, family history for hypertension and coronary heart disease, body mass index (BMI), heavy smoking and sleep disorders, while endocrine diseases with BMI, shift system, alcohol consumption and family history for diabetes.

Conclusion Data from our study strongly support the evidence for an increased risk and higher prevalence of cardiovascular and endocrine diseases in night shift workers. Actions for improvement of shiftwork organization and health promotion are needed for tackling CVD and endocrine diseases for a better health status of health care workers.

P-46 INDICATORS OF ABSENTEEISM DUE TO MENTAL ILLNESS IN THE JUDICIAL SECTOR: A DESCRIPTIVE APPROACH OF A RETROSPECTIVE COHORT

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Introduction Sickness absence is characterized by individual's withdrawal from work, for reasons of health and can be indicator of existing problems with the context work, in addition

to triggering consequences and damages for the worker and society. An analysis of sickness absence due to mental and behavioral disorders contributes to the dimensioning of the problem and to the search for factors related to work that are potentially stressful, in addition to favoring the identification of possible exposure scenarios for illness due to mental disorders, to which workers may have been submitted.

Objective To describe the indicators of sickness absence due to mental disorders of public servants in the judicial sector in Brazil in the period from 2011 to 2016.

Methods This is a retrospective cohort study on the casuistry of absenteeism. Workers who were on sick leave at the time of the study were excluded. The sociodemographic and occupational profile was observed, in addition to estimated epidemiological indicators (prevalences, cumulative incidence, prevalence ratios and risk ratios).

Results There was a total of 1023 events, with a greater number of episodes among servers with more than 10 years of service. The magnitude and occurrence of incident cases of absenteeism tended to decrease over the years, yet women were the most affected group, with prevalences higher than those of the men. Mood disorders, neurotic and stress-related disorders were the clinical diagnoses with the highest prevalences attributed to absenteeism.

Conclusion This approach and considerations are valid externally for the analysis of other services and pose challenges for the health services of the institutions, especially in the early detection of the risk of withdrawal and monitoring of working conditions.

P-49 OCCUPATIONAL HAZARD EXPOSURES, SHIFTWORK AND PHYSICAL HEALTH OF FEMALE FACTORY WORKERS

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Objectives This study aimed to look into the association between occupational hazards and shift work with the frequency of occurrence of adverse physical health symptoms among 500 female factory workers in the Philippines.

Methods This is a meta-analysis of a database of a research study on female factory workers. Data on a wide range of socio-demographic, health and occupational characteristics were analyzed. The health data collected were the self-reported frequency of occurrence of various mental and physical health symptoms and injuries. Regressions were also used between factors affecting female worker's shiftwork and physical health.

Results Associations were observed between shift schedule, workload, sex, occupational risk, harassment, injuries, use of personal protective equipment, benefits, unions, employer-employee relations, and employee-employee relations, with the frequency of onset of physical health symptoms. The odds ratio for the association between shift schedule and occurrence of physical health symptoms was 1.82 (0.66–4.97; $p=0.39$) implying that female workers who worked in the evening were 1.82 times more likely to have frequent physical health symptoms. Having seminars on occupational health may modify the association between shift schedule and physical symptoms. In the final model, the ergonomic and occupational health factors that affected physical health were employee-employee relations, harassment, workload, and work benefits.