Objectives The study objective was to document the division of occupations by sex/gender in Canada and to examine the trends since 1991. The evidence is intended to inform occupational health and safety policies and procedures by including issues of sex/gender as part of the discourse on risk prevention, where warranted.

Methods Data obtained from the last six Canadian Censuses of Population (1991–2016) were analyzed and descriptive statistics were used to examine the labour force composition within various resolutions of the National Occupational Classification (NOC) codes by sex/gender. GEE Poisson regression models were used to generate time- and occupation-adjusted estimates for incidence rate ratios with 95% confidence intervals for sex/gender differences in the labour force. Highly divided occupations were defined as those with 75% or more men or women.

Results Of the 500 4-digit occupational categories representing 2,892 data points over the 25-year period, 58% were highly divided, with more than three-quarters of these incidences being for male-dominated occupations, with less than one-quarter being for female-dominated occupations. GEE analyses of these occupation groups within broad occupational groups suggested relative stability in the gendered nature of occupations over time, with a statistically significant reduction in the proportion of highly divided occupations only observed among occupations broadly grouped within natural and applied sciences.

Conclusion The Canadian workforce remains highly sexed/gendered. While the distribution of men and women within occupations is driven by complex factors, our inquiry into these found that systems of gender essentialism, organizational hierarchies that favour men, and labour markets that are change-resistant remain challenges.

O-250 ASSOCIATION OF CHILD NEURODEVELOPMENTAL AND BEHAVIOURAL PROBLEMS WITH MATERNAL UNEMPLOYMENT IN A POPULATION-BASED BIRTH COHORT

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Introduction Mothers typically adjust their work participation in order to meet family needs, including their children's well-being. However, there is scarce evidence on the impact of children's poor mental health on maternal employment in less affluent European economies, where the dual-earner family structure is often necessary to make ends meet.

Objectives To estimate associations between suspected and diagnosed neurodevelopmental and behavioural problems in 7-year-old children and maternal unemployment at child ages 7 and 10, in a Portuguese birth cohort.

Methods We evaluated 5754 mother-child pairs of the population-based birth cohort Generation XXI. Data on child suspected and diagnosed neurodevelopmental and behavioural problems, namely learning, attention and language problems, externalizing behaviours, developmental delay, autism spectrum disorders, and other neurodevelopmental problems, were retrieved at 7 years of age using caregivers' reports. Maternal employment status was collected at child age 7 and 10. Robust Poisson regression models were used

to calculate prevalence ratios (PRs) and 95% confidence intervals (CIs).

Results After adjustment for maternal age, education, being a single mother, singleton/multiple pregnancy, having children under the age of 6 years, household monthly income and maternal mental disorder diagnosis, women were more likely to be unemployed at child age 10 if the child had, up to age 7, any of the following suspected problems: externalizing behaviours (PR=1.20, 95%CI [1.03–1.40]), developmental delay (PR=1.46, 95%CI [1.12–1.91]), or an autism spectrum disorder (PR=1.62, 95%CI [0.99–2.65]). When the exposure was restricted to clinically diagnosed disorders, the magnitude of associations remained similar, although estimates were less precise. Associations with unemployment were stronger when the child was 10 compared to when the child was 7.

Conclusion Having a child with a developmental or behavioural problem or an autism spectrum disorder at age 7 was associated with maternal unemployment three years later, placing families at a higher risk of financial vulnerability.

O-378 THE ROLE OF GENDER IN THE ASSOCIATION BETWEEN SEXUAL HARASSMENT AT WORK AND SUICIDAL IDEATION: A STUDY WITH CIVIL SERVANTS FROM A MIDDLE-INCOME COUNTRY

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Introduction Sexual harassment is associated with several mental health problems, including suicidality. Despite its terrible consequences for individuals, it is frequently an invisible occupational risk. Women are more likely to be harassed than men. However, little is known about gender differences and effect modification on this association.

Objectives To analyse the association between sexual harassment at work and suicidal ideation (SI) in civil servants from a state in Southern Brazil, investigating gender differences and interaction.

Methods This is a cross-sectional study with data from a web survey with employees from the Federal Judicial Court in Southern Brazil. Sexual harassment was evaluated using a structured questionnaire with specific questions about harassment and violence. SI was assessed using the Self-Reporting Questionnaire (SRQ-20). Poisson regression was used to test associations of interest and estimate prevalence ratios (PR). Stratified analyses by sex were performed.

Results 1,636 workers provided complete information. The prevalence of self-reported sexual harassment was 5.6%, 2.7% among males and 8.2% among females. The prevalence of SI was 4.2%, 5.0% in males and 3.5% in females. Among harassed men, the prevalence of SI was 27.3%. Sexual harassment was positively associated with SI after adjustment for age and educational level (PR 2.31; 95%CI 1.13–4.72). In the analysis stratified by sex, the association remained positive only in males (PR=4.70; 95%CI 1.90–11.66), after adjustment for age, educational level and personality traits.

Conclusions Gender play an important role in the association between sexual harassment and suicide. Approaching the understanding of gender to the measured variable of sex, the

social role of masculinity may explain the high effect magnitude in men. Given that women are more frequent targets of sexual harassment, a sexist social and organisational context may mask the effect of this unacceptable violence in women. Also, there might be a possible normalization of the practice with necessary adaptation of women.

O-486

GENDER-BASED VIOLENCE AND HARASSMENT AND THE INCIDENT PURCHASE OF PSYCHOTROPIC MEDICATION. A PROSPECTIVE COHORT STUDY ON THE SWEDISH WORKING POPULATION

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Introduction Gender-based violence and harassment (GBVH) in the workplace has been found to be associated with self-reported mental ill-health. The prospective risk of using psychotropic medication for the treatment of common mental disorders (CMD) is unclear, though.

Objectives To estimate the prospective association between the exposure to three types of GBVH and the purchase of psychotropic medication in a large population-based Swedish study.

Methods Survey data from the biannual Swedish Work Environment Survey (SWES) from 2007 to 2013 (N=23 452) were merged with data on antidepressants, sedatives/hypnotics and anxiolytics from the Swedish Prescribed Drug Register. Exposure to GBVH was measured as sexual harassment 1) from workplace personnel, 2) from non-workplace personnel (e.g., customers or clients), and 3) gender harassment from workplace personnel. Gender-stratified cox proportional hazards analyses with days to outcome as the time-scale and first instance of medicine outcome as the failure event were fitted for each exposure. Analyses were adjusted for age, parental migration background, education, income, family situation, and labor market industry.

Results In men, weekly to daily exposure to gender harassment (HR 2.39, 95% CI 1.35 - 4.23) and in women, gender harassment once in 12 months (HR 1.18, 95% CI 1.02 - 1.36) and weekly to daily (HR 1.62, 95% CI 1.13 - 2.31) were associated with prospective medication outcome. In women, exposure to sexual harassment monthly from workplace personnel (HR 1.60, 95% CI 1.03 - 2.49) and from non-workplace personnel (HR 1.34, 95% CI 1.00 - 1.79) were also associated with medication purchase.

Conclusion Exposure to gender harassment at the workplace may contribute to the development of CMD, particularly when it occurs more frequently. Sexual harassment seems to impact the mental health of women, regardless if it stems from individuals inside or outside the organization.

Shiftwork

O-47

BEYOND NIGHT WORK: WHY SHIFT WORK WITHOUT NIGHT WORK MAY STILL BE HARMFUL

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Objective Most literature examining the health effects of shift work prioritize night work as the exposure of interest. However, little attention has been paid to the co-occurrence of working time characteristics beyond shift type (e.g. night vs day) that may lead to circadian rhythm disruption; characteristics such as shift intensity, shift duration, rotation pattern, and weekend work. We hypothesize that the co-occurrence of these characteristics with and without night work could explain why shift work without night work is sometimes associated with adverse health effects.

Methods Time-registry data on 14,430 full-time (>150 shifts/year) healthcare workers from 2012–2016 were sourced from the Working Hours in the Finnish Public Sector (WHFPS) study to describe the prevalence and co-occurrence of working time characteristics that may lead to circadian rhythm disruption. First, each characteristic (type, intensity, duration, rotational pattern, and weekend work) was cross-classified in a matrix to examine its co-occurrence with all other characteristics (e.g. how many night shifts were also long shifts). Second, the prevalence of each working hour characteristic by annual shift schedules (permanent or rotating day/evening/night) were examined.

Results Our results provide evidence that working hour characteristics hypothesized to cause circadian rhythm disruption have a varying distribution with each other and across shift schedules- even schedules that don't include nights. While day shifts are thought to not cause circadian rhythm disruption, 32% of day shifts versus 34% of night shifts co-occurred with long work hours, quick returns, and rotations. Furthermore, despite not including nights, the Day/Evening schedule had more quick returns than the Day/Evening/Night schedule and still contained rotations, long hours, and weekend work.

Conclusion Thus, a cautious interpretation of the association between night work and human health may be warranted, as circadian rhythm disruption may be caused by long hours, rotations, or quick returns which may or may not accompany night work.

O-148

SHIFT WORK AND BREAST CANCER. A COHORT STUDY FROM FINLAND BASED ON SURVEY AND PAYROLL DATA

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Introduction International Agency for Research on Cancer (IARC) has concluded that night shift work is probably carcinogenic to humans.

Objectives To examine the association of shift work with breast cancer among women in the Finnish public sector.

Methods We investigated the associations of night and shift work, and potential confounders, with incident breast cancer using a survey (N=64 082, mean age 42,3 years) and payroll cohort (N=17 286, 2008-) of the Finnish Public Sector study (FPS). Survey and payroll employees (baseline 2000–2012) were linked to National Cancer Register and followed-up for breast cancer to the end of 2016. Hazard ratios (HR) and confidence intervals (95% CI) from Cox proportional hazard regression models were calculated, including adjustment for