

IWH Research Alert
May 24, 2019

Missed an issue? Catch up on previous *Research Alerts* available on the IWH website <https://www.iwh.on.ca/journal-articles/research-alerts>

Research Alert is a service provided to you by the Institute for Work & Health (IWH) to help you keep abreast of recent literature in the areas of occupational health and safety, epidemiology, public health and others within the IWH mandate. Please note that these articles have not been reviewed by Institute scientists to assess the quality of the studies. *Research Alerts* should not be considered an endorsement of the findings. Readers are cautioned not to act on the results of single studies, but rather to seek bodies of evidence. It should also be noted that the Institute for Work & Health cannot provide full-text of articles listed in *Research Alerts* to individuals outside of the organization, as this violates copyright legislation.

***Carnide N, Hogg-Johnson S, Koehoorn M, Furlan AD, and Cote P. Relationship between early prescription dispensing patterns and work disability in a cohort of low back pain workers' compensation claimants: a historical cohort study. Occupational and Environmental Medicine. 2019; [epub ahead of print].**

<http://dx.doi.org/10.1136/oemed-2018-105626>

Abstract: OBJECTIVES: To examine and compare whether dispensing of prescription opioids, non-steroidal anti-inflammatory drugs (NSAIDs) and skeletal muscle relaxants (SMRs) within 8 weeks after a work-related low back pain (LBP) injury is associated with work disability. METHODS: A historical cohort study of 55 571 workers' compensation claimants with LBP claims in British Columbia from 1998 to 2009 was conducted using linked compensation, dispensing and healthcare data. Four exposures were constructed to estimate the effect on receipt of benefits and days on benefits 1 year after injury: drug class(es) dispensed, days' supply, strength of opioids dispensed and average daily morphine-equivalent dose. RESULTS: Compared with claimants receiving NSAIDs and/or SMRs, the incidence rate ratio (IRR) of days on benefits was 1.09 (95% CI 1.04 to 1.14) for claimants dispensed opioids only and 1.26 (95% CI 1.22 to 1.30) for claimants dispensed opioids with NSAIDs and/or SMRs. Compared with weak opioids only, the IRR for claimants dispensed strong opioids only or strong and weak opioids combined was 1.21 (95% CI 1.12 to 1.30) and 1.29 (95% CI 1.20 to 1.39), respectively. The incident rate of days on benefits associated with each 7-day increase in days supplied of opioids, NSAIDs and SMRs was 10%, 4% and 3%, respectively. Similar results were seen for receipt of benefits, though effect sizes were larger. CONCLUSIONS:

Findings suggest provision of early opioids leads to prolonged work disability compared with NSAIDs and SMRs, though longer supplies of all drug classes are also associated with work disability. Residual confounding likely partially explains the findings. Research is needed that accounts for prescriber, system and workplace factors

***Sritharan J, Macleod JS, McLeod CB, Peter A, and Demers PA. Prostate cancer risk by occupation in the Occupational Disease Surveillance System (ODSS) in Ontario, Canada. Health Promotion and Chronic Disease Prevention in Canada: Research, Policy and Practice. 2019; 39(5):178-186. <https://doi.org/10.24095/hpcdp.39.5.02>**

Abstract: INTRODUCTION: Previous Canadian epidemiologic studies have identified associations between occupations and prostate cancer risk, though evidence is limited. However, there are no well-established preventable risk factors for prostate cancer, which warrants the need for further investigation into occupational factors to strengthen existing evidence. This study uses occupation and prostate cancer information from a large surveillance cohort in Ontario that linked workers' compensation claim data to administrative health databases. **METHODS:** Occupations were examined using the Occupational Disease Surveillance System (ODSS). ODSS included 1 231 177 male workers for the 1983 to 2015 period, whose records were linked to the Ontario Cancer Registry (OCR) in order to identify and follow up on prostate cancer diagnoses. Cox proportional hazard models were used to calculate age-adjusted hazard ratios and 95% CI to estimate the risk of prostate cancer by occupation group. **RESULTS:** A total of 34 997 prostate cancer cases were diagnosed among workers in ODSS. Overall, elevated prostate cancer risk was observed for men employed in management/ administration (HR 2.17, 95% CI = 1.98-2.38), teaching (HR 1.99, 95% CI = 1.79-2.21), transportation (HR 1.20, 95% CI = 1.16-1.24), construction (HR 1.09, 95% CI = 1.06-1.12), firefighting (HR 1.62, 95% CI = 1.47-1.78), and police work (HR 1.20, 95% CI = 1.10-1.32). Inconsistent findings were observed for clerical and farming occupations. **CONCLUSION:** Associations observed in white collar, construction, transportation, and protective services occupations were consistent with previous Canadian studies. Findings emphasize the need to assess job-specific exposures, sedentary behaviour, psychological stress, and shift work. Understanding specific occupational risk factors can lead to better understanding of prostate cancer etiology and improve prevention strategies

Alhaji MM, Lai A, Naing L, and Tuah NA. Self-reported skin disorders among health care workers. Workplace Health & Safety. 2018; 67(6):294-301. <https://doi.org/10.1177/2165079918795958>

Banas JR, Magasi S, The K, and Victorson DE. Recruiting and retaining people with disabilities for qualitative health research: challenges and solutions. Qualitative Health Research. 2019; 29(7):1056-1064.

<https://doi.org/10.1177/1049732319833361>

Abstract: There are 56.7 million people with disabilities (PWD) living in the United States; yet, PWD are significantly underrepresented in health research. Even when researchers purposively seek to include PWD in studies, challenges emerge related to recruitment and retention, leading to inadequate representation and surface understandings of this population. This in turn contributes to the perpetuation of implicit and explicit health disparities that are already experienced by this population. Grounded within a qualitative, community-based participatory health research framework, we highlight challenges associated with recruiting and retaining PWD in health research, including a critical analysis of the research enterprise structure, how this disables accessible research practices for PWD, and leads to continued skepticism among PWD regarding the value of participating in research. Finally, we propose solutions to create and maintain a culture of access and inclusion as well as long-term collaborative and equity-focused partnerships

El Ghaziri M., Dugan AG, Zhang Y, Gore R, and Castro ME. Sex and gender role differences in occupational exposures and work outcomes among registered nurses in correctional settings. *Annals of Work Exposures and Health*. 2019; 63(5):568-582.

S:\0_Library Catalogue\le-publications\49754.pdf

Ref ID: 49754

<https://doi.org/10.1093/annweh/wxz018>

Abstract: BACKGROUND AND CONTEXT: The correctional environment exposes registered nurses to unique occupational health hazards including, but not limited to, an increased risk for workplace violence. Gender role expectations regarding femininity and masculinity may influence occupational exposures and outcomes differently. Risk comparisons between male and female registered nurses working in correctional settings, have been minimally examined. With the proportion of male registered nurses working in corrections higher than that of nurses working in other healthcare sectors, and with the increasing number of males entering the nursing workforce in general, it is important to characterize and understand occupational exposures and outcomes of male and female registered nurses, especially those working in correctional settings.

PURPOSE/OBJECTIVES: This paper aims to describe and compare sex and gender role differences in occupational exposures and work outcomes among correctional registered nurses. METHODS: A cross-sectional web-based survey using Qualtrics was administered to registered nurses working in a northeastern correctional healthcare system between June and October 2016. The survey was composed of 71 items from the CPH-NEW Healthy Workplace All Employee Survey, Assessing Risk of Exposure to Blood and Airborne Pathogens and General Health Survey, Bem Sex Role Inventory-Short Form (BSRI-SF), and the Negative Acts Questionnaire-Revised. RESULTS: Of 95 registered nurse participants, 75% were female with the highest percentage identified as belonging to the feminine group (37%), while the highest percentage of male

participants were identified as belonging to the androgynous group (33%). Females worked primarily on the first shift, while males tended to work the second and third shifts ($P < 0.05$). Over one third of all participants (37%) reported having experienced a sharps-related injury and having been exposed to blood-borne pathogens and body fluids within the previous 2-5 years. The majority of the participants (>95%) reported being at risk for workplace violence and having been victims of workplace violence perpetrated by an inmate. Significant gender differences ($P < 0.0001$) were noted in the bullying exposure with androgynous nurses having higher occasional bullying. There was a marginal difference in burnout for females ($M = 6.8$, $SD = 2.1$) and males ($M = 5.8$, $SD = 1.9$, $P = 0.05$). IMPLICATIONS: Effective interventions are needed to address the sex and gender role-based differences in bullying exposure and burnout in order to promote the overall health and well-being of correctional registered nurses

Evanoff BA, Yung M, Buckner-Petty S, Andersen JH, Roquelaure Y, Descatha A, et al. The CONSTANCES job exposure matrix based on self-reported exposure to physical risk factors: development and evaluation. Occupational and Environmental Medicine. 2019; 76(6):398-406.

S:\0 Library Catalogue\le-publications\49755.pdf

Ref ID: 49755

<https://doi.org/10.1136/oemed-2018-105287>

Abstract: OBJECTIVES: Job exposure matrices (JEMs) can be constructed from expert-rated assessments, direct measurement and self-reports. This paper describes the construction of a general population JEM based on self-reported physical exposures, its ability to create homogeneous exposure groups (HEG) and the use of different exposure metrics to express job-level estimates. METHODS: The JEM was constructed from physical exposure data obtained from the Cohorte des consultants des Centres d'examens de sante (CONSTANCES). Using data from 35 526 eligible participants, the JEM consisted of 27 physical risk factors from 407 job codes. We determined whether the JEM created HEG by performing non-parametric multivariate analysis of variance (NPMANOVA). We compared three exposure metrics (mean, bias-corrected mean, median) by calculating within-job and between-job variances, and by residual plots between each metric and individual reported exposure. RESULTS: NPMANOVA showed significantly higher between-job than within-job variance among the 27 risk factors ($F(253,21964)=61.33$, $p<0.0001$, $r(2)=41.1\%$). The bias-corrected mean produced more favourable HEG as we observed higher between-job variance and more explained variance than either means or medians. When compared with individual reported exposures, the bias-corrected mean led to near-zero mean differences and lower variance than other exposure metrics. CONCLUSIONS: CONSTANCES JEM using self-reported data yielded HEGs, and can thus classify individual participants based on job title. The bias-corrected mean metric may better reflect the shape of the underlying exposure distribution. This JEM opens new possibilities for using unbiased exposure

estimates to study the effects of workplace physical exposures on a variety of health conditions within a large general population study

Ferguson JM, Costello S, Neophytou AM, Balmes JR, Bradshaw PT, Cullen MR, et al. Night and rotational work exposure within the last 12 months and risk of incident hypertension. *Scandinavian Journal of Work, Environmental & Health*. 2019; 45(3):256-266.

<https://doi.org/10.5271/sjweh.3788>

Abstract: Objectives Shift work, such as alternating day and nights, causes chronobiologic disruptions which may cause an increase in hypertension risk. However, the relative contributions of the components of shift work such as shift type (e.g., night work) and rotations (i.e., switching of shift times; day to night) on this association are not clear. To address this question, we constructed novel definitions of night work and rotational work and assessed their associations with risk of incident hypertension. Methods A cohort of 2151 workers at eight aluminum manufacturing facilities previously studied for cardiovascular disease was followed from 2003 through 2013 for incident hypertension, as defined by ICD-9 insurance claims codes. Detailed time-registry data was used to classify each worker's history of rotational and night work. The associations between recent rotational work and night work in the last 12 months and incident hypertension were estimated using adjusted Cox proportional hazards models. Results Elevated hazard ratios (HR) were observed for all levels of recent night work (>0-5, >5-50, >50-95, >95-100%) compared with non-night workers, and among all levels of rotational work (<1, 1-10, >10-20, >20-30, and >30%) compared with those working <1% rotational work. In models for considering the combination of night and rotational work, workers with mostly night work and frequent rotations (>=50% night and >=10% rotation) had the highest risk of hypertension compared to non-night workers [HR 4.00, 95% confidence interval (CI) 1.69-9.52]. Conclusions Our results suggest recent night and rotational work may both be associated with higher rates of incident hypertension

Frogli E, Rudman A, Lovgren M, and Gustavsson P. Problems with task mastery, social acceptance, and role clarity explain nurses' symptoms of burnout during the first professional years: a longitudinal study. *Work*. 2019; 62(4):573-584.

<https://doi.org/10.3233/WOR-192892>

Abstract: BACKGROUND: Symptoms of burnout among new professionals is a well-recognized problem but there is a lack of prevention programs. Effective interventions are based on an understanding of the processes that contribute to the development of a problem and suggest how it may be addressed. OBJECTIVE: Using the framework of organizational socialization, the objective of this study was to investigate if development of the socialization processes role clarity, social acceptance, and task mastery affects development of symptoms of burnout among new professionals and may specifically be targeted in transition-to-practice programs to prevent symptoms of burnout from occurring. We

conducted this investigation by examining the relations between role clarity, social acceptance, task mastery, and symptoms of burnout the first year after professional entry, as well as the relations between changes in the socialization processes and changes in symptoms of burnout during the first three years following professional entry in a sample of new nurses. **METHOD:** Relationships between the socialization processes and symptoms of burnout were modeled using a linear latent growth model and data from a nationally representative sample of 1210 new registered nurses. **RESULTS:** Role clarity, social acceptance, and task mastery were related to symptoms of burnout cross-sectionally and longitudinally. Task mastery was the most important explanatory variable. **CONCLUSIONS:** The results suggest that an intervention designed to support the development of the socialization processes may be effective in preventing symptoms of burnout among new nurses. Interventions targeting role clarity, social acceptance, and task mastery during the first professional year may be expected to have effects during the following years as well, extending the value and importance of such interventions

Huysmans MA, Srinivasan D, and Mathiassen SE. Consistency of sedentary behavior patterns among office workers with long-term access to sit-stand workstations. *Annals of Work Exposures and Health*. 2019; 63(5):583-591. <https://doi.org/10.1093/annweh/wxz022>

Abstract: **INTRODUCTION:** Sit-stand workstations are a popular intervention to reduce sedentary behavior (SB) in office settings. However, the extent and distribution of SB in office workers long-term accustomed to using sit-stand workstations as a natural part of their work environment are largely unknown. In the present study, we aimed to describe patterns of SB in office workers with long-term access to sit-stand workstations and to determine the extent to which these patterns vary between days and workers. **METHODS:** SB was objectively monitored using thigh-worn accelerometers for a full week in 24 office workers who had been equipped with a sit-stand workstation for at least 10 months. A comprehensive set of variables describing SB was calculated for each workday and worker, and distributions of these variables between days and workers were examined. **RESULTS:** On average, workers spent 68% work time sitting [standard deviation (SD) between workers and between days (within worker): 10.4 and 18.2%]; workers changed from sitting to standing/walking 3.2 times per hour (SDs 0.6 and 1.2 h⁻¹); with bouts of sitting being 14.9 min long (SDs 4.2 and 8.5 min). About one-third of the workers spent >75% of their workday sitting. Between-workers variability was significantly different from zero only for percent work time sitting, while between-days (within-worker) variability was substantial for all SB variables. **CONCLUSIONS:** Office workers accustomed to using sit-stand workstations showed homogeneous patterns of SB when averaged across several days, except for percent work time seated. However, SB differed substantially between days for any individual worker. The finding that many workers were extensively sedentary suggests that just access to sit-stand workstations may not be a sufficient remedy against SB; additional personalized

interventions reinforcing use may be needed. To this end, differences in SB between days should be acknowledged as a potentially valuable source of variation

Krause JS, Dismuke-Greer CE, Jarnecke M, Li C, Reed KS, and Rumrill P. Employment and gainful earnings among those with multiple sclerosis. Archives of Physical Medicine and Rehabilitation. 2019; 100(5):931-937. <https://doi.org/10.1016/j.apmr.2018.11.005>

Abstract: OBJECTIVE: To identify demographic, educational, and disease-related characteristics associated with the odds of employment and earnings among participants with multiple sclerosis (MS). DESIGN: Cross-sectional using self-report assessment obtained by mail or online. SETTING: Medical university in the southeastern United States. PARTICIPANTS: Participants with MS (N=1059) were enrolled from a specialty hospital in the southeastern United States. All were adults younger than 65 years at the time of assessment. INTERVENTIONS: Not applicable. MAIN OUTCOME MEASURES: Current employment status and earnings. RESULTS: MS factors were highly related to employment, yet not as strongly to conditional earnings. Those with no symptoms reported 6.25 greater odds of employment than those with severe current symptoms. Compared with those with progressive MS, those with relapsing or remitting had greater odds of employment (odds ratio [OR]=2.24). Participants with no perceived cognitive impairment had 1.83 greater odds of employment than those with moderate to severe perceived cognitive impairment. Those with <10 years since MS diagnosis had 2.74 greater odds of employment compared with those with >20 years since diagnosis. An absence of problematic fatigue was highly related to the probability of employment (OR=5.01) and higher conditional earnings (\$14,454), whereas the remaining MS variables were unrelated to conditional earnings. For non-MS variables, education was highly related to employment status and conditional earnings, because those with a postgraduate degree had 2.87 greater odds of employment and \$44,346 greater conditional earnings than those with no more than a high school certificate. Non-Hispanic whites had 2.22 greater odds of employment and \$16,118 greater conditional earnings than non-Hispanic blacks, and men reported \$30,730 more in conditional earnings than women. CONCLUSIONS: MS indicators were significantly associated with employment status including time since diagnosis, fatigue, symptom severity, and presence of cognitive impairment. However, among those who were employed, conditional earnings were less highly related to these factors and more highly related to educational attainment

Lord D, Deem A, Pitchford P, Bray-Richardson E, and Drennon M. A 6-week worksite positivity program leads to greater life satisfaction, decreased inflammation, and a greater number of employees with A1C levels in range. Journal of Occupational and Environmental Medicine. 2019; 61(5):357-372. <https://doi.org/10.1097/JOM.0000000000001527>

Abstract: OBJECTIVE: To determine whether a 6-week Positivity Program could

impact employee cardiovascular inflammation, blood sugars, cortisol, DHEA and/or life satisfaction. METHODS: Pre- and post-study blood draw and life satisfaction questionnaire tracked changes in 10 cardiovascular and inflammatory biomarkers for sixty-three employees who participated in a 6-week Positivity Program comprised of three interventions: gratitude, HeartMath's Heart Lock-In, and yoga stretches with guided imagery. RESULTS: Improvements were recorded in life satisfaction as well as in 7 of 10 cardiovascular and inflammatory biomarkers, including HsCRP (-27%), HbA1c (-1%), glucose (-2%), MPO (-5%), Lp-PLA2 (-9%), ApoB (-6%), and DHEA (1%). No improvements were recorded in cortisol (11%), sdLDL (0%), or OxLDL (7%). CONCLUSIONS: Data suggest that engaging in 6 weeks of a workplace Positivity Program may improve employee life satisfaction, blood sugar levels, and some markers of cardiovascular inflammation

Massamba VK, Talbot D, Milot A, Pearce N, Trudel X, and Brisson C. Assessment of the healthy worker survivor effect in the relationship between psychosocial work-related factors and hypertension. Occupational & Environmental Medicine. 2019; 76(6):414-421.

<https://doi.org/10.1136/oemed-2018-105460>

Abstract: OBJECTIVES: The healthy worker survivor effect (HWSE) usually leads to underestimation of the effects of harmful occupational exposures. HWSE is characterised by the concomitance of three associations: (1) job status-subsequent exposure, (2) job status-disease and (3) previous exposure-job status. No study has reported the coexistence of these associations in the relationship between psychosocial work-related factors and health. We assessed if HWSE is present when measuring the effects of cumulative exposure to psychosocial work-related factors on the prevalence of hypertension in white-collar workers. METHODS: Data were obtained from two timepoints (1991-1993 at baseline and 1999-2001 at follow-up) of a prospective cohort study. At baseline, the population was composed of 9188 white-collar employees (women: 49.9%) in Quebec City. Job strain as psychosocial work-related factor and blood pressure were measured using validated methods. Job status (retirees vs employees) at follow-up was self-reported. Multiple multilevel robust Poisson regressions were used to estimate prevalence ratios of hypertension and risk ratios of retirement separately by gender. We performed multiple imputations to control selection bias due to missing values. RESULTS: Retirement eliminated the subsequent exposure to job strain de facto and was associated with the reduction in the prevalence of hypertension in younger (-33%) and older (-11%) men and in older women (-39%). Job strain was associated with job status in younger men and in women of any age. CONCLUSION: Data showed the presence of HWSE in younger men and older women given the coexistence of the three structural associations

Nyanchoka L, Tudur-Smith C, Thu VN, Iversen V, Tricco AC, and Porcher R. A scoping review describes methods used to identify, prioritize and display

gaps in health research. Journal of Clinical Epidemiology. 2019; 109:99-110.

<https://doi.org/10.1016/j.jclinepi.2019.01.005>

Abstract: BACKGROUND AND OBJECTIVES: Different methods to examine research gaps have been described, but there are still no standard methods for identifying, prioritizing, or reporting research gaps. This study aimed to describe the methods used to identify, prioritize, and display gaps in health research. METHODS: A scoping review using the Arksey and O'Malley methodological framework was carried out. We included all study types describing or reporting on methods to identify, prioritize, and display gaps or priorities in health research. Data synthesis is both quantitative and qualitative. RESULTS: Among 1,938 identified documents, 139 articles were selected for analysis; 90 (65%) aimed to identify gaps, 23 (17%) aimed to determine research priorities, and 26 (19%) had both aims. The most frequent methods in the review were aimed at gap identification and involved secondary research, which included knowledge synthesis (80/116 articles, 69%), specifically systematic reviews and scoping reviews (58/80, 73%). Among 49 studies aimed at research prioritization, the most frequent methods were both primary and secondary research, accounting for 24 (49%) reports. Finally, 52 (37%) articles described methods for displaying gaps and/or priorities in health research. CONCLUSION: This study provides a mapping of different methods used to identify, prioritize, and display gaps or priorities in health research

Thompson L, Ford HL, Stroud A, and Madill A. Managing the (in)visibility of chronic illness at work: dialogism, parody, and reported speech.

Qualitative Health Research. 2019; 29(8):1213-1226.

<https://doi.org/10.1177/1049732319825843>

Abstract: Interactionally, the workplace may be dilemmatic for a person with "invisible" chronic illness. Risks of stigmatization exist if they disclose their condition to colleagues. Meanwhile, not disclosing threatens well-being and entitlements. Using Bakhtin's dialogism as a theoretical framework, we explored these social aspects of illness: inductively analyzing narratives from 20 participants with multiple sclerosis (MS). Capitalizing on concepts from dialogical and conversation analysis, links between (in)visibility, knowledge, and belief were examined with respect to symptoms and co-worker judgment. Perceived medical legitimacy creates a core social dilemma. At the intersection of genre and action, participants systematically used parody to subvert the traditional workplace hierarchy. "Oh-prefaced" direct reported speech (OPDRS) was deployed to exaggerate workplace interactions, undermining managers/colleagues who misattributed (in)visible symptoms. Parodic OPDRS index emotive interactional dilemmas. As subversions of organizational power, OPDRS denote those very areas where employees feel disempowered. Sensitivity to OPDRS can provide diagnostic support and complement evaluation frameworks

Wisenthal A, Krupa T, Kirsh B, and Lysaght R. Insights into cognitive work hardening for return-to-work following depression: qualitative findings from an intervention study. *Work*. 2019; 62(4):599-613.

<https://doi.org/10.3233/WOR-192893>

Abstract: BACKGROUND: Workplace mental health disability claims are rising with concomitant challenges to return-to-work (RTW) success. Cognitive work hardening (CWH) addresses work re-entry issues including fatigue, coping skills, and reduced cognitive abilities which are relevant for people returning to work following an episode of depression. OBJECTIVE: To gain insight into underlying factors contributing to CWH's effectiveness in RTW preparation following depression. METHODS: Twenty-one individuals on paid disability leave due to depression completed a four week CWH treatment intervention prior to returning to work. At program completion and at three months follow up, participants provided qualitative information regarding their experience of the intervention in the form of written questionnaires and interviews. Data were analyzed using a directed approach to content analysis. RESULTS: Intervention elements perceived by participants as helpful included structure, work simulations, and simulated work environment. Main treatment gains reported by participants related to routine, self-confidence, stamina, and cognitive abilities. Personal agency, empowerment, and skill development emerged as important consequences of interventions for RTW following depression. CONCLUSIONS: Study findings enhance understanding of CWH with relevance to clinical practice. Key intervention elements deemed important for RTW are discussed and may provide guidance for other work-re-entry programs

Yao M, Xu BP, Tian ZR, Ye J, Zhang Y, Wang YJ, et al. Cross-cultural adaptation of the Neck Pain and Disability Scale: a methodological systematic review. *Spine Jo*. 2019; 19(6):1057-1066.

<https://doi.org/10.1016/j.spinee.2019.01.007>

Abstract: BACKGROUND: Neck pain is a common and uncomfortable symptom, adversely affecting the work and life of those affected. The Neck Pain and Disability Scale (NPDS) is widely used in neck pain assessment. It has been cross-culturally adapted into several languages to extend its reach to non-English-speaking countries. The aim of this study was to comprehensively evaluate the translation procedures and measurement properties of cross-cultural adaptations of the NPDS. METHOD: We searched multiple databases, including PubMed, Embase, CINAHL, SciELO, PsycINFO, Medline, SinoMed, PsycINFO, Web of Science, and Scopus, using the keywords "Neck Pain and Disability Scale," "NPDS," "cross-cultural," and "translation". Cross-cultural adaptation and quality control of measurement properties of adaptation procedures were independently conducted by two reviewers in accordance with Guidelines for the Process of Cross-Cultural Adaptation of Self-Report Measures and Quality Criteria for Psychometric Properties of Health Status Questionnaire. RESULTS: There are 15 adaptations of NPDS in 11 different languages with multiple versions in Korean, simplified Chinese and Turkish with 19 studies. In

about half of these studies, forward and back translations were conducted. Specially, they mostly focus on the synthesis phase of the translations. Only the simplified-Chinese-2011 adaptation meets the standards of composition due to the existence of an expert committee. Internal consistency, reliability, and construct validity have been evaluated in most existing eligible articles. Half of these articles tested ceiling and floor effects, and only a few included agreement responsiveness and interpretability. CONCLUSION: The Italian (publication 1 and 2), Persian-Iranian, simplified-Chinese-2011, and Thai adaptations show better quality than others with regard to cross-cultural adaptation and measurement properties. Further studies should fully assess the measurement properties of the NPDS in the Dutch (publication 1 and 2), Hindi-Indian, Korean-2013, simplified-Chinese-2010, Turkish-2004, and Turkish-2007 adaptations

Zuccotti CV and O'Reilly J. Ethnicity, gender and household effects on becoming NEET: an intersectional analysis. *Work, Employment and Society*. 2018; 33(3):351-373.

<https://doi.org/10.1177/0950017017738945>

Abstract: Surprisingly little attention has been given to an integrated understanding of the interaction between ethnicity, gender and parental household's employment status affecting young people's educational and labour market outcomes. Drawing on data from Understanding Society, the article compares youth probabilities of becoming NEET (not in employment, education or training) in the UK, focusing on the outcomes for young men and women from different ethnic groups and from four types of 'households of origin': workless, one-earner, single-parent-earner and two-earner. The article shows that while, on average, young people with workless parents have a higher likelihood of becoming NEET compared to individuals from households with at least one employed parent, this does not apply universally to all ethnic minority groups, nor equally to young men and women. Having workless parents is much less detrimental for second-generation Indian and African men, and for second-generation Bangladeshi men and women, than for white British individuals. An intersectional analysis illustrates the universal and differentiated effects of disadvantage among youth

*IWH authored publications.