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## Job strain, overweight and diabetes: a 13-year prospective study among 12,896 men and women in Ontario

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Statement of the Problem: Diabetes is one of the primary causes of death worldwide. More than 450 million adults worldwide (7.7%) are now living with this chronic disease and a 50% increase between 2010 and 2030 is expected. The American Diabetes Association recently called for research on social and environmental determinants of diabetes to intensify primary prevention. Recent epidemiological evidence suggests that frequent and modifiable psychosocial stressors at work might contribute to the development of diabetes, but more prospective studies are needed. The purpose of this study is to evaluate the relationship between job strain and the incidence of diabetes among 12,896 men and women over a 13-year period in Ontario, Canada, and also to examine the modifying effect of body mass index in this relationship.

Methodology & Theoretical Orientation: Data from Ontario respondents (35-74 years of age) to the 2000-01, 2002 and 2003 cycles of the Canadian Community Health Survey were prospectively linked to the Ontario Health Insurance Plan database for physician services and the Canadian Institute for Health Information Discharge Abstract Database for hospital admissions. Our sample consisted of actively employed participants with no previous diagnose for diabetes. Coxproportional hazard regression models were performed to evaluate the relationship between job strain, obesity and the incidence of diabetes.

Findings: Overall, job strain was not associated with the incidence of diabetes. Among women, job strain was associated with an elevated risk of diabetes, although this finding did not reach statistical significance. Among men, no association was observed. Also, job strain increased the risk of diabetes among women with obesity, while these stressors reduced the risk among men with obesity.

Conclusion & Significance: The current study suggests that lowering job strain might be an effective strategy for preventing diabetes among women, especially the high-risk group that are women with obesity.

## **Biography**

Mahée Gilbert-Ouimet is an associate professor of population health in the Department of Health Sciences at the Université du Québec à Rimouski. She holds a Canada Research Chair in Sex and Gender in Occupational Health. Gilbert-Ouimet's research mainly focuses on the effects of adverse psychosocial working conditions on the incidence of chronic health conditions, and on intervention studies aimed at reducing these working conditions. She is also interested in developing methods and recommendations that improve sex and gender considerations in health research.

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