273 Association Between Social Avoidance and Metabolic Syndrome Among Police Officers

Schedule:

Wednesday, June 1, 2016
Pacific D/L (Hyatt Regency San Francisco)

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Introduction: Previous epidemiological studies have reported that psychosocial factors such as hostility predict increased risk of metabolic syndrome (MetSyn) and inflammation. Social avoidance, a subscale measure of hostility, indicates a tendency to avoid others and interpersonal confrontation, to refrain from social interaction, or to withdraw from interpersonal involvement, and may explain the association between hostility and health outcomes such as metabolic syndrome. However, published studies on this topic are scarce, especially among police officers who tend to isolate themselves from interactions with non-police persons. The present study explored the association between social avoidance and MetSyn in police officers.

Methods: Participants were 289 police officers including 213 men and 76 women from the Buffalo Cardio-Metabolic Occupational Police Stress (BCOPS) Study, a cross-sectional study conducted from 2004-2009. Social avoidance is one of the six subscales derived from the Cook-Medley questionnaire. It consists of four questions that required each officer to respond with “Yes” or “No”. The social avoidance score was computed by summing the scores of four questions. The criteria for the five MetSyn components were based on the recommendations from the American Heart Association/National Heart, Lung, and Blood Institute in 2005. Associations of demographic, psychosocial, and lifestyle characteristics with the mean number of MetSyn and social avoidance were analyzed. Age and gender were selected as potential confounders. Unadjusted and adjusted associations between social avoidance and MetSyn were examined using negative binomial regression models.

Results: Among 289 participants, the mean age was 40.1 years, the mean number of MetSyn components was 1.6, the mean social avoidance score was 1.4, and the prevalence of MetSyn was 26.6%. Increased age was associated with an increase of mean number of MetSyn components ($p = 0.023$). Gender was associated with the number of MetSyn components with men having a higher number than women (1.9 for men, and 1.0 for women) ($p < 0.001$). Unadjusted mean numbers of MetSyn components increased across three levels of increasing social avoidance score (1.42, 1.54, and 1.83, respectively; $p = 0.013$). The association remained significant after controlling for age and gender.

Conclusions: Results from this study suggest that social avoidance, a trait often seen among police officers, was positively and independently associated with MetSyn in police officers. These results will have significant implications for MetSyn risk reduction once they are confirmed in future prospective studies.

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