College of Public Health News

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Georgia Southern University
Georgia Southern Examines Association between Consumption and Sleep Quantity in Pregnant Women

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Georgia Southern recently examined the association between fruits and vegetable consumption and sleep quantity in pregnant women utilizing data from the 2011 and 2012 Behavioral Risk Factors Surveillance System (BRFSS). All women (n = 2951) of childbearing age (18–44 years) who were pregnant and responded to all fruit and vegetable consumption and sleep duration questions were included. Covariates included age, race, education level, exercise, and marital status. Data were analyzed using linear and ordinal logistic regression.

Researchers found that total daily fruit and vegetable consumption was not associated with sleep duration among pregnant women, controlling for confounders $[\beta = -0.03, (-0.07, 0.00)]$. Orange and green vegetable consumption were both inversely associated with sleep duration $[\beta = -0.19, (-0.38, -0.01) \text{ and } \beta = -0.20, (-0.33, -0.08)]$ respectively. Ordinal logistic regression found that the odds of meeting or exceeding sleep time recommendations increased slightly with each unit increase in total fruit and vegetable consumption $[OR = 1.05 (1.003, 1.092)]$ and for every unit increase in fruit consumption $[OR = 1.12 (1.038, 1.208)]$. Women who exercised within the past 30 days reported approximately 20 min of additional sleep compared to those who did not $[\beta = 0.32 (0.16, 0.49)]$. Age, employment status, and marital status were also independently associated with sleep duration.

Sleep duration in pregnant women was associated with exercise and other demographic factors, but only mildly associated with fruit and vegetable consumption. Future research should investigate the effects of additional factors including sleep quality, gestational age, family status and other medications as potential confounders.

"Association Between Fruit and Vegetable Consumption and Sleep Quantity in Pregnant Women," was published in Maternal and Child Health Journal.

Dr. Kelly Sullivan, Assistant Professor of Epidemiology at the Jiann-Ping Hsu College of Public Health Georgia Southern University was the faculty mentoring author. Student authors were Ms. Carmen H. Duke, Ms. Jazmin A. Williamson, Ms. Kassandra R. Snook, and Ms. Kathryn C. Finch.
Georgia Southern Collaborates with Researchers from CDC and NACCHO to Create a Taxonomy of LBoH, Based on LHDs Perspectives

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Dr. Gulzar Shah led a collaborative effort to develop a local board of health (LBoH) classification scheme and empirical definitions to provide a coherent framework for describing variation in the LBoHs.

The study is based on data from the 2015 Local Board of Health Survey, conducted among a nationally representative sample of local health department (LHD) administrators, with 394 responses. The classification development consisted of the following steps: (1) theoretically guided initial domain development, (2) mapping of the survey variables to the proposed domains, (3) data reduction using principal component analysis and group consensus, and (4) scale development and testing for internal consistency.

The final classification scheme included 60 items across 6 governance function domains and an additional domain—LBoH characteristics and strengths, such as meeting frequency, composition, and diversity of information sources. Empirical application of this classification strongly supports the premise that LBoHs differ in their performance of governance functions and in other characteristics.

The LBoH taxonomy provides an empirically tested standardized tool for classifying LBoHs from the viewpoint of local health department administrators. Future studies can use this taxonomy to better characterize the impact of LBoHs. The study recommended that in addition to the 6 governance functions, additional characteristics of LBoH may capture positive features of an LBoH, including board composition and member qualifications, diversity of information sources used by the board to seek community perspectives, and LBoH meeting frequency.

Contributions and functioning of LBoHs are more diverse than generally assumed in the previous research.

“Creating a Taxonomy of Local Boards of Health Based on Local Health Departments’ Perspectives,” was published in the American Journal of Public Health.

Dr. Gulzar Shah, Associate Dean of Research at the Jiann-Ping Hsu College of Public Health Georgia Southern University, was the lead author. The coauthors of this study included Dr. Sergey Sotnikov, Office for State, Tribal, Local, and Territorial Support, Centers for Disease Control and Prevention (CDC), Atlanta, GA; Dr. Carolyn J. Leep, National Association of County and City Health Officials (NACCHO); Dr. Jiali Ye, NACHHO; and Dr. Timothy W. Van Wave, Office for State, Tribal, Local, and Territorial Support, Centers for Disease Control and Prevention, Atlanta, GA were co-authors.
Georgia Southern Examines Predictors of Mammogram and Pap Screenings among US women

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The most common cancers among women are breast and cervical cancer. Although early detection of cancer has been shown to increase the likelihood of survival, many women are not screened for these cancers as often as practice guidelines recommend. The objective of this study was to examine the mammography and Papanicolaou (Pap) smear screening practices among women within the United States, and to determine predictors of screening.

Results from the study showed Pap and mammography screenings were positively associated with younger age, minority race, being married, having a higher level of education, being employed, having higher household income, having health insurance and not having financial concerns regarding affording doctor visits. Blacks and Hispanic women were more than twice as likely to have Pap screenings (Black: OR=2.16, 95% CI 1.97- 2.36; Hispanic: OR=2.33, 95% CI = 2.11-2.58) and mammograms (Blacks: OR=2.11, 95% CI 1.88-2.36; Hispanics OR=1.82, 95% CI 1.60-2.07) compared to White women. Women earning less than $10,000 per annum were much less likely to have cervical cancer screenings (OR=0.57, 95% CI 0.51-0.65) compared to women with higher incomes while mammography screening was less likely among women who reported financial barriers to health care (OR=0.59, 95% CI 0.53-0.64).

In conclusion, women from minority ethnic groups were more likely to be screened for cervical cancer compared to White, non-Hispanic women. Women from low-income households and women who could not visit a doctor due to costs had the strongest association with lacking screenings.


Dr. Kelly Sullivan, Assistant Professor of Epidemiology at the Jiann-Ping Hsu College of Public Health Georgia Southern University was the faculty mentoring author. Student authors were Ms. Sewuese Akuse, Ms. Koren Tate, Ms. Tiffany Addison, Ms. Tierra Drayton, and Ms. Deborah Kanda.