Food Insecurity in Orthopaedic Trauma Patients

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Purpose: The lack of access to affordable and nutritious food has been associated with adverse health outcomes. Little is known about the impact of food insecurity in the orthopaedic trauma population. Using survey data from patients hospitalized for orthopaedic trauma, we investigated food insecurity for (1) prevalence, (2) relationship with comorbidities, and (3) associations with hospital utilization and medical complications. Identifying these factors may provide better understanding for developing food optimization strategies and prevent adverse health outcomes in the orthopaedic trauma population.

Methods: Prospective data were collected via a comprehensive social determinants of health (SDOH) survey of 184 consecutive orthopaedic trauma patients admitted to an urban, Level I trauma center (January 2019 to December 2020). Trauma registry information for enrolled participants was also accessed. Food insecurity was determined using the Hunger Vital Signs. Bivariate and logistic regression analyses were performed to examine associations between food insecurity, demographics, comorbidities, adverse outcomes, and hospital utilization. Odds ratios (ORs) were reported with 95% confidence intervals (CIs).

Results: The prevalence of food insecurity was 21%. Age (42 ± 17 years), sex (43% female), race (66% black, 30% white, 3% Asian), education (53% high-school diploma or equivalency), comorbidities, in-hospital complications, and length of hospital stay (9 ± 14 days) were not associated with food insecurity. Patients who lived in other than private residences (7%)—homeless, hotel, assisted living, other group setting, or temporary—were at significantly higher risk for being food insecure (OR: 10.0, 95% CI: 1.4-67.5).

Conclusion: Patients hospitalized for orthopaedic trauma represent a high-risk population for food insecurity, at a level 2 times higher than the national average (21% vs 10%) and is associated with housing instability. Future research is encouraged to elucidate the impact on longer-term outcomes, including surgical complications, hospital readmission, and emergency room utilization, and to streamline care coordination and optimize outcomes in this vulnerable population.

The FDA has stated that it is the responsibility of the physician to determine the FDA clearance status of each drug or medical device they wish to use in clinical practice.