

Socioeconomic status is associated with frailty in Korean old adults: Data from KHANES

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Background: Low Socioeconomic status (SES) is a common risk factor of poor health in older adults. Frailty is also a common risk factor for morbidity and mortality in older adults. Although the existence of a social gradient in the frail elderly is known previously, there are no studies how SES affects the health status of the frail elderly. This study aims to examine the relationship between SES and frailty and analyze how SES affects frailty in Korean older adults. **Methods:** This study use the data from Korean Health and Nutritional Examination Survey (KHANES). It is a cross-sectional population study and designed to assess the health related behavior, health condition, and nutritional state of Korean. Of 4557 participants (≥ 65 years) in 6th cycle KHANES (2010-2012), excluding of 1,268 who were not answered parents' educational level, we analyzed 3,289 participants. We used the frailty index using 41 deficits in the data. The relationships between difference indicators of SES and frailty were assessed in multivariable logistic regression models adjusted for potential confounders. **Results:** Of the samples, 1,199(36.4%) were robust, 1,112(33.8%) were prefrail and 978(29.7%) were frail. In adjusted models, low level of education was associated with frailty (odd ratio [OR]: 3.16, 95% confidence interval [CI]: 2.40-4.54). Frailty also related with low level of occupation during midlife (OR: 2.97, CI: 2.00-4.38) and poor financial security (OR: 1.79, 95% CI: 1.48-2.16). The education/occupation level and marital status were related to health behaviors like smoking, drinking and irregular hospital visit ($p < 0.001$). **Conclusions:** The odds of frailty are increased as lower education/occupation level and unmarried/divorced/widowed status. The education/occupation level and marital status are related to health behavior, which may influence on glucose and BP control.