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■ Editorial

KLoSA—Korean Longitudinal Study of Aging

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In this issue, Jang and Kim[1] analyzed the association between handgrip strength (HGS) and self-rated health using Korean Longitudinal Study of Aging (KLoSA) data. Unlike the Korea National Health and Nutrition Examination, which is the most frequently used data source in the *Korean Journal of Family Medicine* (*KJFM*) when examining nationally representative samples, KLoSA repeatedly examined the same data of the same respondents every 2 years from 2006 to 2016, with detailed interviews including computer-assisted personal interviewing, and has the strengths of both cross-sectional data and time-series data. The participants of KLoSA were randomly selected using a multi-stage, stratified probability sampling design to create a nationally representative sample of Koreans aged 45 years and older. The data encompass seven categories: population, family, health, employment, income, wealth, subjective expectation, and life expectation. The data were collected using self-questionnaires and do not include directly measured medical measurements such as blood pressure and blood test parameters, except for HGS.[1]

When dealing with time-series data, methods of analysis of repeated-measures data should be used, including repeated-measures analysis of variance (ANOVA), mixed-effects models, generalized estimating equation (GEE), and survival analysis when the outcome is death. Repeated-measures ANOVA can be used when the outcome variable is continuous; however, mixed-effects models and GEE can be used regardless of whether the data are continuous or categorical, as well as when there are missing data during the study period.[2] Five articles using KLoSA data have been published in *KJFM*, including one cross-sectional study,[3] two longitudinal studies using mixed-effects models,[4,5] and two mortality studies using survival analysis.[6,7]

Jang and Kim[1] used the GEE model with self-rated health as an outcome. They showed that HGS and relative HGS (HGS/body mass index) were inversely associated with poor self-rated health. Sarcopenia, the reduction of muscle mass and strength that occurs with aging, is widely considered one of the major causes of disability in older people. HGS is known to be a useful cost-effective clinical marker of sarcopenia.

The KLoSA data are publicly available and downloadable from the employment survey site and nationally representative sample cohort studies including anthropometric and psychosocial data. Therefore, they are useful for analyzing time-series associations and outcomes in elderly Korean people. Longitudinal data can provide insights into causative associations and have more power than cross-sectional data. It would be desirable if more analyses would be published in the future. Further, researchers need to be more accustomed to performing analysis of longitudinal data.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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