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Relationship Between Number of Household Members and Prevalence of Chronic Diseases: A Cross-Sectional Analysis of Korea Health Panel Data

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RECENTLY, AVERAGE HOUSEHOLD size has been changing and more people are living alone. According to the results of the 2010 Population and Housing Census, the number of 1- and 2-person households accounted for 23.9% and 24.3%, respectively, of total households in South Korea. This phenomenon has been observed and reported not only in South Korea but also internationally. European countries show a particularly high proportion of single-person households, accounting for 30% of all households in Europe, and reaching 50% in Paris.¹ People who live alone are vulnerable to poor health behaviors, and these behaviors are related to the growing prevalence of chronic disease. Therefore, we aim to examine the association between number of household members and the prevalence of chronic disease by using nationally representative data.

We used data from the 2011 Korea Health Panel, which included 12,946 participants who were at least 20 years of age. In this study, we defined chronic diseases as those lasting longer than 3 months that also had been diagnosed by a doctor. In the multivariable logistic analysis to determine the relationship between chronic disease prevalence and individual and household characteristics, the significant variables were as follows: number of people in the household, sex, age, marital status, level of education, medical insurance type, economic activity status, and body mass index. A higher number of household members correlated with a lower prevalence of chronic diseases (OR 0.893, 95% CI 0.858–0.930). Subjects who were female, older, married, less educated, beneficiaries of Medical Aid, economically inactive, and who had a higher body mass index were associated with having significantly greater chronic disease prevalence.

We showed that an individual's health status is related to the number of people in his or her household. One- and 2-person households have a higher prevalence of chronic disease than larger households. Previous studies have found that individuals who live alone are more likely to engage in an irregular lifestyle and unhealthy behaviors, which worsen their health.² Household members act as social controls to promote healthy behaviors.³ One- and 2-person households tend to have fewer social relationships. These reduced interactions could contribute to a loss of control over unhealthy behaviors, leading to poor health outcomes. In addition, relationships with family

members may affect mental health, which can be directly related to physical health.⁴ Findings of this study suggest that chronic disease management should be changed to prioritize the needs of 1- and 2-person households. Considering the rapid growth of these households among both young adults and the elderly, the development of a public health intervention and policy that focuses on changing the lifestyles of 1- and 2-person households to improve the health outcomes in these populations should be a primary goal.

Author Disclosure Statement

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