The Effects of Socio-economic Status and Health Behaviors on Health Related Quality of Life in Korea

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Health related quality of life (HRQOL) assesses the life quality in terms of physical and mental health. HRQOL is affected by different individual characteristics, including biological variations and free choice in performing health behaviors, which creates inequalities in health status (WHO, 2013). This study attempted to investigate the effects of socio-economic status (SES) and health behaviors on HRQOL. HRQOL has been used to evaluate health status related to personal health practices and health care services (Andersen, 1995; Sprangers & Schwartz, 1999; Wilson & Cleary, 1995). Such health behaviors are determined by both personal and environmental factors (Andersen, 1995). The present study verified the moderating effects of the SES, as personal and environmental factors on health behaviors and HRQOL.

This study is based on data from *The Fifth Korea National Health and Nutrition Examination Survey 2012* undertaken by Korea Centers for Disease Control and Prevention in Korea. HRQOL was measured by EQ-5D scale, a generic quality of life instrument based on different descriptions of health states (Sach, Barton, Doherty, Muir, Jenkinson, & Avery, 2006). EQ-5D is composed of five dimensions: mobility, self-care, pain, usual activities, and psychological status. Each dimensions has three possible answers ranged from 1 to 3. Summary index with maximum score of 1 was calculated. SES was measured by personal income, education level, and residence. The predisposing (gender and age) and need factors were controlled; only consumers with no known health problems were included. Health behaviors were measured by regular check-up and treatment adherence. The present study verified the moderating effects of the SES on health behaviors and HRQOL using hierarchical regression analysis.

The results of this study showed that the SES variables were related to HRQOL in different ways (F=107.201, p=.000, *Adj.* R^2=.200). Personal income had main effect on HRQOL (β=.043, p<.05), but there was no significant moderating effect. On the other hand, while education and residence area had no significant main effect, the interactions of skipping treatment × education and regular check-up × residence affected HRQOL. Skipping required treatment had a negative effect on HRQOL for less educated individuals (β=.013, p<.001). Regular check-ups had a negative effect on HRQOL for rural consumers (β=.092, p<.01).

HRQOL is affected by different predisposing factors, enabling factors, environmental factors and health behaviors. Predisposing factors are an unavoidable difference, while consumers' free-choice health behaviors are closely connected to socio-economic status, which can be regarded as an enabling factor. Additionally, environmental factors are related to national and local health care systems, and therefore, the difference between local areas in the same country needs to be considered.

In this study, while education and residence area did not have a significant main effect, the interaction effect of skipping required treatment and education, and the interaction effect of regular health check-up and residence area on HRQOL were significant. Those with relatively low levels of education may ignore the importance of sufficient treatment in early phases of illness or disease or skip treatment required for serious health problems. Individuals living in rural areas may not receive regular check-ups due to limited health care access, and therefore, they only may have regular check-ups when they have significant health problems. The problem of health inequality must be addressed to improve consumers' health related quality of life. In this study, it was verified that consumers' health behaviors are intertwined with their SES, which affects HRQOL. Therefore, the different approaches to improving consumers' health related quality of life are needed in accordance with individuals' different socio-economic status.

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