



Health-related Quality of Life and Related Factors among Rural Residents in Cambodia

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Dear Editor-in-Chief

Quality of life (QOL) is a universal, complex, and multidimensional concept used globally that encompasses the physical, psychological, social and spiritual dimensions of an individual's current life circumstances (1). QOL should be evaluated as an individual's culture and value systems in relation to his/her goals, expectations, standards and concerns (2). In order to support health improvement and develop health promotion activities in a community or culture, an understanding the factors that determine good quality of life is necessary and integral to addressing health equality. Understanding these factors in rural communities and regions is particularly important, as HRQL tends to be poorer among residents of rural areas than among those living in urban environments (3); farmers, for example, have demonstrated a poorer quality of life when compared to other working groups (4).

Cambodia is primarily a rural, agrarian country, with 80% of its 14.68 million inhabitants living in rural regions, in addition, almost half (45.9%) of the country's population lives in poverty (5). The study of rural residents' HQRL should be conducted across cultural groups since HRQL can vary due to the diversity of residential environments, as well as the economic, social and cultural infrastructures that determine individual life-styles (6). Until now, however, no apparent stu-

dies have been conducted to investigate HRQL and its related factors among the rural population in Cambodia.

This community-based cross-sectional survey was conducted to provide baseline data on HRQL and to understand its related factors among rural Cambodian residents, using a random sample of 223 people in the Krouch Chmar district in Kampong Cham, a province of Cambodia in 2015. The surveyed participants were adults, 18 yr of age and older, lived in the district for more than 5 yr. The study was structured using Andersen's behavioral model, which depicts contextual characteristics, individual characteristics, and health behaviors affecting perceived health and evaluated health (7). HRQL was measured by the WHO Quality of Life-BREF questionnaire (WHOQOL-BREF) translated into Khmer (Cambodian language) by the International Society for Prosthetics and Orthotics (ISPO) for use in a multi-country study using WHO protocols; this questionnaire is composed of physical, psychological, social relationships, and environmental domains. Each domain in the WHOQOL-BREF survey has a score range of 4-20, with a higher score indicating better quality of life. Descriptive and multivariate regression analyses were employed.

The Chonbuk National University Institutional Review Board (IRB file No. 2015-06-031-002) approved the study protocol.

Among the four HRQL domains, the mean score for the social relationships domain was the highest (14.7). This was followed in descending order

by the psychological (13.3), physical (12.8), and environmental (12.1) domains. Being 40 yr of age or over ($P=0.036$) or having over five members in the household ($P=0.034$) positively affected the physical domain (Table 1).

Table 1: Results of the multivariate regression analysis of the quality of life domains

| WHOQOL BREF domain | Variable | β | P | R^2 |
|---------------------------------|---|---------|--------|-------|
| Physical domain | Age (≥ 40 yr) | -0.195 | 0.036 | 0.231 |
| | Household size (≥ 5) | 0.182 | 0.034 | |
| | Self-perceived health (good) | 0.227 | 0.025 | |
| | Self-perceived happiness(happy) | 0.243 | 0.011 | |
| Psychological domain | Sex (female) | -0.181 | 0.038 | 0.390 |
| | Age (≥ 40 yr) | -0.195 | 0.020 | |
| | Never smoked | 0.269 | 0.002 | |
| | Self-perceived health (nor poor neither good) | 0.222 | 0.020 | |
| | Self-perceived health (good) | 0.348 | <0.001 | |
| | Self-perceived happiness(happy) | 0.243 | 0.005 | |
| Social relationships | Spouse (Yes) | 0.221 | 0.010 | 0.154 |
| Environmental domain | Sex (female) | -0.294 | 0.002 | 0.286 |
| | Never drank | 0.188 | 0.047 | |
| | Self-perceived health (good) | 0.205 | 0.035 | |
| | Self-perceived happiness(happy) | 0.310 | 0.001 | |
| Global score of quality of life | Disease (no) | 0.166 | 0.041 | 0.394 |
| | Self-perceived health (nor poor neither good) | 0.302 | 0.001 | |
| | Self-perceived health (good) | 0.286 | 0.002 | |
| | Self-perceived happiness(happy) | 0.279 | 0.001 | |

Individuals never smoked had significantly higher mean scores than occasional smokers in the psychological domain ($P=0.002$) and being female ($P=0.038$) or 40 yr old or over ($P=0.020$) were negatively associated with the psychological domain. Residents currently living with a spouse had better HRQL in the social relationships domain ($P=0.010$). Being female ($P=0.002$) was associated with a lower mean score in the environmental domain. Participants who had no diseases ranked higher in the global QOL score ($P=0.041$). Individuals who perceived their health

as good or themselves as happy had a positive association with all domains except social relationships. The majority of the rural residents in Cambodia experience a moderate level of HRQL. The establishment of community health services that focus first on the effective access to health services should help the rural residents meet their most urgent needs regarding primary care access. Health care providers, social workers, and policymakers need to pay serious attention towards increasing the HRQL of marginalized people (females, that age 40 or over, or those

who self-perceive as unhealthy and unhappy) as well as targeting the enhancement of the individual's subjective happiness in an agricultural community. This study informs health priorities and strategies for HRQL improvement in rural areas of Cambodia and other similar cultures.

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