Impact of Daily Stress on Satisfaction of Life for Urban and Rural Elderly Living Alone

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Abstract. This study investigates how the daily stress received by the elderly people living alone impacts their satisfaction of life in rural and urban areas. Survey was conducted on elderly people living alone in the southern cities, K and C, of South Korea. Chi square test, t-test, correlation analysis and multiple regression analysis etc was conducted with the SPSS program with 5 percent level of significance. The results are as follows: First, analysis of the life satisfaction between rural and urban elderly living alone showed no significant difference in physical, material, social, emotional/production domains. Second, daily stress and life satisfaction of the elderly living alone was found to have negative correlation. In the case of urban dwellers, life satisfaction was deteriorated by stresses related to economic problems and social concerns. In the case of rural dwellers, life satisfaction deteriorated by stresses related to interpersonal relationships and economic problems. The findings in this study will provide an empirical basis for developing policies to tackle stress issues and life satisfaction for urban and rural elderly living alone.

Keywords: the Elderly Living Alone, Daily Stress, Satisfaction of Life, Satisfaction on the Physical Domain

1 Introduction

1.1 Background

The population of the aged is increasing thanks to rapid economic growth which has improved standards of living and medical technology. According to data released by Statistics Korea, 12.7% of the population was over the age of 65 in 2014 and will reach 20% by 2026, which is one fifth of the population. The structure of the family is
disintegrating in this trend of aging society from an extended family to a nuclear family which has resulted in more and more elderly left living alone. The living-along population over the age of 65 took up 7.1% of the total households in 2014 and is expected to reach 15.4% in 2035. Thus the problem for elderly people living alone is emerging as a serious social issue along with the issues of nuclear family, poverty, disease and solidarity [1]. As a result, elderly living alone is exposed to daily stress which calls for the need to research about the problems related to these particular subjects and measures to cope them.

Stress for elderly is caused by many factors including family cohesion, depression, economic condition, health condition, social support etc. It was found that stronger family cohesion resulted in relieving stress and depression level [2]. On the other hand, the sociodemographic factors that cause elderly stress were low level of education, bereavement, living alone and poor economic status [3]. The risk factors of stress, depression and suicidal idea in particular, differed according to area of residence, residential type, family structure, religion, level of education and economic condition.

Whereas stress and depression increase elderly’s suicidal ideation, social support and friend support decreased suicidal ideation. In addition, third-party support (a type of social support) increases suicide ideation along with other risk factors [4].

Although many previous studies addressed issues related to elderly, their focus was limited to either the daily stress [2,3,4]. There lacks research about the relationship between daily stress and life satisfaction particularly for elderly living alone. Like this, prior efforts were concentrated only on analyzing the daily life factors for the aged which now suggest the need to analyze the daily concerns for elderly living alone. Thus, this study investigates through how daily stress for elderly living alone affects their satisfaction with life.

### 1.2 Study Objective

The specific research questions under investigation are as follows:
First, what is the sociodemographic characteristic of the urban and rural elderly living alone?
Second, how does satisfaction of life differ between the urban and rural elderly living alone?

### 2 Study Method

#### 2.1 Study Subject

Survey was conducted with subject group of 310 elderly people living along in Southern cities C and K from June 15 to July 13, 2015. Among the collected data, 28 questionnaires that had missing data or considered inappropriate were discarded and the remaining 282 were analyzed. Frequency analysis, t-test, one-way ANOVA,
Scheffes multiple range test, correlation analysis and multiple regression analysis was conducted. Empirical analysis was done with 5 percent level of significance, sample size was derived using the test power analyzing program called G*Power 3.1 which calculated based Cohen Sample Size Formula with 5 percent level of significance i.e. 95 percent statistical power, effect size was set at midpoint 0.15. The minimum sample size required was calculated to be 129 and as a result a total of 282 actual samples were analyzed. SPSSWIN 18.0 program was used for statistical analysis.

2.2 Satisfaction with Life Scale

To measure life satisfaction, we used Satisfaction with Life Scale developed by Diener (1985) and adapted by Wan Suk Kim and Young Jin Kim. Questions were responded on a 5-point Likert scale, in which higher mean score indicates higher satisfaction with life.

2.3 Reliability

Cronbach’s α was used to test for the measurement tool’s reliability and the results are shown in Table 1. In general, score above 0.6 is considered as reliable. In this test, reliability was found to be high for both daily stress (α =.931) and satisfaction with life (α =.951).

2.4 Data Analysis

For empirical analysis, the level of significance was set to 5 percent and was calculated using the SPSSWIN 18.0 program. Frequency analysis was used to analyze sociodemographic characteristics and Cronbach’s α was used to test the reliability of psychological well-being and self-esteem. Difference between psychological well-being and self-esteem in relation to respective sociodemographic characteristics was analyzed through t-test and one-way ANOVA and the difference within p<.05 was tested through Scheffe's multiple range test. In addition, the impact of psychological well-being on self-esteem of elderly living alone was tested using multiple regression analysis.

3 Results

3.1 Socio-Demographic Characteristics of the Elderly Living Alone in Rural and Urban Areas

The distribution of socio-demographic characteristics of rural and urban elderly living alone is organized as follows. The sex ratio for the urban elderly was 64.0% for
‘males’, 36.0% for ‘females’ while rural elderly was 42.0% for ‘males’, 58.0% for ‘females’. Rural elderly had more females over males ($\chi^2=13.778$, p<.001). In terms of age, most populated age group for the urban area was ‘65-69 years old,’ with 40.3% and ‘60-64 years old,’ with 36.4%, for the rural area. However, this difference was not statistically significant at 5% significance level. Religion of urban elderly was highest for ‘Buddhism’ with 51.8%, which is more than half. Religion of urban elderly was highest for ‘Buddhism’ with 46.9%, followed by ‘none’ with 26.6% and ‘Protestant’ with 23.8% ($\chi^2=14.889$, p<.01). Level of Income was highest for ‘ordinary household’ with 72.7% for urban elderly and 76.2% for rural elderly.

3.2 Difference in the Life Satisfaction Level between the Elderly Living Alone in Urban and Rural Areas

The result of satisfaction with life and its difference between urban and rural dwellers are shown as follows. The findings show that in all physical, material, social, emotional and production domains, the difference between rural and urban dwellers was not statistically significant.

Mean value of life satisfaction level was 3.15 for urban elderly and 3.18 for rural elderly, indicating no statistically significant difference.

3.3.1 Daily Stress of Urban Elderly Living Alone and Satisfaction with Life

The data on the impact of daily stress on satisfaction with life of urban elderly living alone is shown as follows. Multiple regression analysis was conducted to see how much daily stress influences life satisfaction and the findings showed that $R^2=0.331$ which indicates that data explains 33.1% of the regression model. Variance analysis for the model shows that model is statistically significant (F=16.588, p<.001) and that there is statistically significant relationship on life satisfaction in the order of economic problems ($\beta=-.283$, p<.05) and social issues ($\beta=-.224$, p<.05). This shows that urban dwellers’ stress related to economic problems and social issues deteriorate their satisfaction with life.

3.3.2 Daily Stress of Rural Elderly Living Alone and Life Satisfaction

The data on the impact of daily stress on satisfaction with life of rural elderly living alone is shown as follows. Multiple regression analysis was conducted to see how much daily stress influences life satisfaction and the findings showed that $R^2=0.253$ which indicates that data explains 25.3% of the regression model. Variance analysis for the model shows that model is statistically significant (F=11.685, p<.001) and that there is statistically significant relationship on life satisfaction in the order of interpersonal relationship ($\beta=-.287$, p<.01) and economic problems ($\beta=-.209$, p<.05). This shows that rural dwellers’ stress related to interpersonal relationships and economic problems deteriorate their satisfaction with life.
4 Discussions and Conclusion

This study investigated the impact of daily stress on satisfaction with life focused on rural and urban elderly living alone. Discussion based on our findings is as follows:

First, analysis of the life satisfaction level between the elderly living alone in rural and urban areas showed no significant difference in physical, material, social, emotional/production domains. This result conflicts with the findings made by Kyung Hee Choi [5] that participation in economic activity, financial assets, health condition and psychological variables are significant determinants of life satisfaction for urban and rural elderly living alone. The reason for this discrepancy may be due to the fact that the average age distribution of subject pool was 72 for urban seniors and 74 for rural seniors whereas for this study, it was above 65.

In conclusion, daily stress affects life satisfaction for elderly living alone when it is concerned with economic problems, social issues and interpersonal relationship.

We would like to make following suggestions based on the findings above:

First, the life satisfaction for the elderly living in rural and urban areas had no significant difference. This result will be a good empirical reference for welfare policy-making efforts that considers personalized differences between urban and rural seniors.

Further comparative study between rural and urban is necessary on how the psychological well-being of elderly living alone might affect self-esteem and life satisfaction.

References