

2018 Doctoral Dissertation

**Effects of types of the elderly living alone by marital status
on higher-level functional capacity and mental health**

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ABSTRACT

【Objectives】

There are various researches which deal with the health of elderly living alone, and most of them regard 'elderly living alone' as just one category. However, it seems that no studies, which categorize them into four groups depending on marital status (separation, divorce, bereavement and unmarried) and analyze the relationships between these groups and their health, have been done.

The aim of this research is to reveal how their marital status affects the health, especially higher-level functional capacity and mental health, of elderly living alone.

This research is made up of two related studies. The first part will analyze the result of the cross-sectional survey, and the second part will examine the result of two years follow-up survey which is conducted on the same informants.

【The first study】

Relationship between health index and the types of elderly living alone

— **Based on the Comprehensive Regional Studies for Preventing Isolation of the Elderly Who Live in Metropolitan Area (CAPITAL study)** —

ABSTRACT:

Objectives The aim of this research is to sort elderly living alone by their types of marital status and to clarify the relationships between those types and their higher-level functional capacity and mental health.

Methods The sample of this research are 757 elderly people living alone chosen from 5,052 people who replied a mail survey that carried out on 7,707 people, out of 8,332 people over 65 years old in 2013 in the A ward B area of Tokyo, who are not nursing care level 4 or 5 and are not inmates of welfare facilities. This research adopted TMIG-IC as the index of higher-level functional capacity, and WHO-5-J as the mental health index. This research examined the relationships between the score of TMIG-IC and WHO-5-J and the types of living alone by general linear model. Its fixed factors are the types of their marital status (separation, divorce, bereavement and unmarried), annual income, whether they have separated children or not. And the covariate are their sex and age.

Results The results are as follows. Though the relationship between the types of living alone and TMIG-IC score was not significant, WHO-5-J score was lower in separation group compared with bereavement group. In addition, there was an interaction between existence of separated children and the types of living alone. That is, separation group with separated children showed significantly low score.

【The second study】

The influence of the types of elderly living alone based on marital status on the change of the 2 year health

: Based on the Comprehensive Regional Studies for Preventing Isolation of the Elderly Who Live in Metropolitan Area (CAPITAL study)

ABSTRACT

Objectives The aim of this research is to sort elderly living alone by their types of marital status and to clarify how those types of elderly living alone affect their higher-level functional capacity and mental health with a 2 years follow-up survey, which is based on the cross-sectional research in 2013.

Methods This research is based on the result from a survey in 2013. The base line scores are from the mail survey that was carried out on 7,707 people, out of 8,332 people over 65 years old in the A ward B area of Tokyo, within the jurisdiction of community general support centers, who are not at nursing care level 4 or 5 and are not inmates of welfare facilities. There are 5,052 respondents in all and the number of people who are living alone is 1,104. This research categorizes the 757 respondents, who are living alone and answered all the questions, into four types of marital status: separation group, divorce group, bereavement group and unmarried group. Similarly, in 2015, a follow-up mail survey had been conducted. This research adopts TMIG-IC as the index of higher-level functional capacity, and WHO-5-J as the mental health index. In the 2 years comparison of TMIG-IC total score and WHO-5-J score, the dependent variable is each variation. This research uses the analysis of covariance that the fixed factors are types of living alone, sex, annual income and having separate children or not, and the covariance are the base line score of the dependent variable, age and chronic diseases.

Results This research analyzes 517 respondents, out of 527 people, whose family status were capable of being grasped in the 2015 survey. With regards to the variation of TMIG-IC total score, main effects of the types of living alone is seen. The adjusted variation of covariance is decreased most in separation group (-0.95). In the variation of WHO-5-J score, main effects of the types of living alone is seen. In the divorce group, the adjusted variation of covariance is significantly higher than the unmarried group (2.33 vs -0.55).

【Conclusion】

This research categorized elderly living alone into separation, divorce, bereavement and

unmarried from the perspective of marital status, and analyzed the relationships between each category and their health status. With regards to the index of health status, this research adopted TMIG-IC as the higher-level functional capacity and WHO-5-J as the mental health index.

In the first research, the analysis of the data from the mail survey in 2013 showed that while the relationship between the types of living alone and TMIG-IC score was not significant, WHO-5-J score was lower in separation group compared with bereavement group. In addition, there was an interaction between existence of separated children and the types of living alone. That is, separation group with separated children showed significantly low score.

In the second research, the variation of TMIG-IC total score and WHO-5-J score of two years had been examined. As a result, the main effects of the types of living alone was seen in both indices. In TMIG-IC total score, the variation in the separation group had declined in two years. In WHO-5-J score, the variation in the divorce group had increased within the same period.

It would be necessary to grasp the cause of separation which is not clear in this research. Also, there is a possibility that social isolation and social support could affect the health status of unmarried group, which is considered to be increasing in the future. These points will be scrutinized in the following researches.

This research concludes that in analyzing elderly living alone, which has been considered to be just one category, it is necessary to take marital status into account. Furthermore, with regards to the relationship between health problems and the four groups, comparing each group with the people who are not living alone would also be required.