

Social isolation of older people (part 1) - as a risk factor for loss of health: a cohort study

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## **Background**

Relationships between social isolation and functional decline of older people have been reported. However, it is not unclear whether social isolation cause functional decline or functional limitation cause social isolation. We investigate the causal relationship in a cohort study.

## **Methods**

Subjects are community dwelling older people ( $\geq 65$  y.o.) in a municipality in Japan ( $n=4994$ ). Baseline data, including functional state, history of falls, Geriatric depression Scale (GDS-15items), self rated health (SRH), social isolation, etc., were obtained from 3596 persons (response rate 71%) in 2000. We analyzed only 1056 persons who had no functional limitation in IADLs (13 items). Social isolated persons are defined as those who leaving home less than once per month.

We regarded persons whose functions are declined when they are certified for long-term care need or for support because of bedridden or dementia in the public long-term care insurance system. We got follow up information of death and certification for long term care insurance from the municipality, which is insurer of the system.

We calculated odds ratios (OR) for the loss of healthy life (death or functional decline) using multiple logistic regression analysis of SPSS Ver.12.0J.

## **Results**

Among 1056 persons, we observed 133 persons who lost healthy life (87 deaths and 46 functional decline) by August 2004 (follow up period is 54 months). After adjusting age, we found that social isolation is a significant risk factor (OR=3.83,  $p<0.01$ ) for the loss of healthy life. However, suffering from diseases could be a reason for staying home, because OR was 5.55( $p<0.05$ ) for poor SRH. When we used social isolation and other possible risk factors (such as poor SRH, depression, history of falls) as independent variables simultaneously, we obtained significant OR for social isolation (OR=3.60,  $p<0.05$ ) and poor SRH (OR=6.78,  $p<0.05$ ).

## **Conclusions**

Social isolation showed significant OR for the loss of healthy life among healthy community dwelling older people even after adjusting age, depression, poor SRH. These results suggest that social isolation could be an independent risk factor for the loss of healthy life.

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