Archives of Gerontology and Geriatrics 72 (2017) 86–90

Contents lists available at ScienceDirect

Archives of Gerontology and Geriatrics

journal homepage: www.elsevier.com/locate/archger

Gender differences in positive life orientation among the nursing home elders in China: A cross-sectional study

Cheng Jin, Zhibo Zheng, Wei Xian, Ming Bai, Liying Jin, Yuting Li, Xiufei Yang, Yang Sheng, Wensi Ai, Hongbo Liu*

School of Public Health, China Medical University, Shenyang, China

ARTICLE INFO

Keywords:
Positive life orientation
Nursing home
Elders
China

ABSTRACT

Introduction: Life orientation among the nursing home elders would differ from those of community-dwelling elders due to the different living environment, but may have greater differences in gender.
Objectives: This study was designed to investigate the positive life orientation and explore the potential risk factors including gender disparities among nursing home elders in China.
Methods: This cross-sectional study was conducted in Northeast China. Two steps cluster sampling procedure were chosen. Basic activities of daily living (BADL) and instrumental activities of daily living (IADL) systems were used to estimate the functional status. Positive life orientation was measured using the six-question life orientation scale (LOS).
Results: 2512 nursing home elders were enrolled in the study. The mean age of the participants was 73.14 ± 6.746 years. Of the 1308 men and 1204 women, 14.9% had a positive life orientation in women and 16.1% in men. Higher level of education, independent in BADL and IADL were related to positive life orientation both in men and women. Age and BMI were also found to be significantly associated with positive life orientation in men (OR = 0.587, 1.132, respectively). For women, the influence of income and vision on positive life orientation was also significant (OR = 1.967, 1.926, respectively).
Conclusion: The positive life orientation was higher in men than women. The gender-specific differences contribute to take more effective measures to improve the positive life orientation.

1. Introduction

At present, China's elderly population reached 127 million in 2012 (National Bureau of Statistics of China, 2012). The proportion of elderly people had grown rapidly owing to one-child policy (Lei, Xu, Nwaru, Long, & Wu, 2016). The traditional family-based support system alone is inadequate to cope with rapid social change and population aging in China (Zhang, 2007) because more young people can move from countryside to city or even immigrate to other countries. So, more and more families are likely to use the nursing home as an option besides one's residence in the community (Glass, Gao, & Luo, 2013; Wu et al., 2012).

In the nursing home, the physical and psychological health of old people would have greater differences from those in the community-dwelling owing to the different living environment, especially in China with in the traditional culture. It is reported that the proportion of the elders with depression might increase from 32.8% to 54.4% during the first year of stay in a nursing home (Hoover et al., 2010). Community-dwelling elders reported greater life satisfaction than those who lived in a nursing home (Gueldner et al., 2001). Positive life orientation, as an inner health resource among older people, is closely related to emotional vitality, optimism, positive emotion, etc. (Fagerstrom, 2010). In general, positive life orientation is defined as a predisposition to selectively focus attention on the positive in any situation and to thereafter construe reality accordingly. But positive life orientation is not clear in the nursing home elders. It showed an almost exponential decline with age in an aged population (Eloranta et al., 2012; Pitkala, Laakkonen, Strandberg, & Tilvis, 2004), and a long-standing impact on prognosis (Fagerstrom, 2010). It has been confirmed to predict good survival prognosis independently of subjective health (Tilvis, Laitala, Routasalo, Strandberg, & Pitkala, 2012). Therefore, more and more attention should be paid to the nursing home elders (Goodwin et al., 2017; Jerez-Roig, de Brito Macedo Ferreira, Torres de Araújo, & Costa Lima, 2017; Lok, Lok, & Canbaz, 2017).

Abbreviations: BADL, basic activities of daily living; IADL, instrumental activities of daily living; LOS, life orientation scale; QOL, quality of life; BMI, body mass index; SD, standard deviation; OR, odds ratio; 95%CI, 95% confidence interval

* Corresponding author at: School of Public Health, China Medical University, No.77 Puhe Road, Shenyang North New Area, Shenyang, Liaoning Province, 110122, China.
E-mail address: hbliu@cmu.edu.cn (H. Liu).

http://dx.doi.org/10.1016/j.archger.2017.06.003
Received 9 September 2015; Received in revised form 5 June 2017; Accepted 5 June 2017
Available online 10 June 2017

Gender is one of the strongest demographic influences on the reporting of socioeconomic status and functional status of the elderly. Women are more likely to have significantly lower levels of education and income than men (Back & Lee, 2011; Carmel, 2012). Focusing on quality of life (QOL), gender differences with consistently worse results among women have been widely described in many different populations (De la Cruz, Lai, Goodrich, & Kilbourne, 2013; Orfila et al., 2006; Van Nguyen, Van Nguyen, Duc Nguyen, Van Nguyen, & The Nguyen, 2017). The women have more disabilities than men on activities of daily living (ADL) and instrumental activities of daily living (IADL) (Kabir et al., 2003; Lim, 2014). Previous studies also have demonstrated that there are some inconsistent results of gender-related differences in the prevalence of hearing and vision impairments (Lopez et al., 2011; Mousa, Courtright, Kazanjian, & Bassett, 2014; Patil et al., 2014). The psychological distress is at higher level in women than men (Brandheim, Rantakeisu, & Starrin, 2013). It's reported that positive life orientation had an association with gender (Fagerstrom, 2010). So we wonder whether these differences could be demonstrated in the nursing home elders. It not only could provide valuable reference material for a preventive strategy, but also can be capable of improving their physical and psychological wellbeing, and then comprehensively improve their QOL.

2. Methods

2.1. Sample

This cross-sectional study was conducted in Aug. 1, 2012. According to the results of the pre-survey and the calculation formula of sample size of cluster sampling, we plan to extract 60 nursing homes. In order to make the sample more representatives of the nursing home elders in Northeast China, two steps sampling procedure were chosen. Firstly, the cities in Northeast China were stratified as three groups according to the development level of economy which refers to five-year average GDP, the characteristics of city and locations, etc., and 3 cities (Shenyang, Jilin and Herbin) were randomly selected from the economically developed regions, 4 cities (Dandong, Liaoyang, Tongliao and Jiamusi) from economically moderately developed regions, 3 cities (Fuxin, Baishan and Qitaihe) from economically underdeveloped regions. Secondly, according to the location of nursing homes in every city (rural vs. urban) and convenience sampling, 3 nursing homes were selected from rural regions, 3 from urban regions. In all, 60 nursing homes were enrolled in our study.

The nursing home elders enrolled in this study should meet the following inclusion criteria: (1) an age of 60 years and (or) above; (2) living for at least one year in the nursing home; (3) lack of any cognitive impairment; (4) communicating in Chinese. People who were unable to complete the survey or refused to participate in the investigation were excluded from the study. Face-to-face interviews were conducted in the living-room for old people living alone, or in other rooms for these sharing the room with others. Each interview lasted about 20–30 min. We trained all data collectors on the content and methods of interview. Data collectors would use similar methods and appropriate way to ask questions to ensure data reliability and consistency. All interviews in each city were finished by four students cooperatively.

2.2. Ethics statement

This protocol was reviewed and approved by the ethical committee group of China Medical University (CMU6206-1004). The study procedures were in accordance with the ethical standards. Any biomarkers or tissue was not collected, and any individual privacy was not investigated. The processing of this study was given their written informed consent by the nursing home. All old people volunteered for the study with fully understanding of the study purpose. Considering to their age and no-written, all old people enrolled in this study had given verbal consent, and these old people who didn't agree to be investigated had been excluded. The ethical committee of China Medical University approved consent procedure. All participation in this study did not affect the future free health examination.

2.3. Measures

2.3.1. General characteristics

Data collected in this study included: demographic characteristics (age, gender, marital status, educational level, length of stay, etc.); general physical status (height, weight, vision, hearing, speaking, sleep, pain, etc.).

2.3.2. Functional status

Functional status was assessed by using the basic activities of daily living (BADL) scale and instrumental activities of daily living (IADL) scale (Katz & Akpom, 1976; Lawton & Brody, 1969) respectively. The BADL scale assessed 6 functions: bathing, dressing, and feeding, showering, toileting, mobility (rising from a chair and walking). The IADL scale assesses 8 functions: use of telephone, shopping for groceries, preparation of a meal, housekeeping, laundering, taking medications as prescribed, transportation, and managing finances. BADL or IADL dependence was defined as a need for help in at least one or more activities (Sjolund, Wimo, Qiu, Engstrom, & von Strauss, 2014).

2.3.3. Positive life orientation

Positive life orientation was measured by the Life Orientation Scale (LOS) (Fagerstrom, 2010; Pitkala et al., 2004). This scale has been used in several other comprehensive studies of older people. The scale was a six-item questionnaire combining information about suffering from loneliness (seldom or never/often or always), feeling depressed (seldom or sometimes/often or always), life satisfaction (yes/no), having zest for life (yes/no), feeling needed (yes/no), having plans for the future (yes/no). The score of each question was coded as 0 ('yes' and 'seldom or never' and 'seldom or sometimes'), 1('no' and 'often or always'). The summary score ranged from 0 to 6, with a score of 0 representing the positive life orientation and 1 or over the negative life orientation (Tilvis et al., 2012). In the present study, the Cronbach's alpha for the scale was 0.72.

2.4. Analysis

Quantitative data were expressed as mean and standard deviation. According to various categorical variables, the Pearson χ^2-test was used to compare differences in the degree of positive life orientation. Logistic regression was used to examine the risk factors for positive life orientation among men and women with positive life orientation as the dependent variable (yes = 1, no = 0). All statistical analysis was performed using SPSS 21.0 (IBM, Asia Analytics Shanghai). $p < 0.05$ (two-sided) was considered statistically significant.

3. Results

3.1. Demographic characteristics of the participants

2997 nursing home elders consented to participate in the study among 3568 qualified elders, and the response rate was 84%. Of them, 256 elders who stayed in the nursing home less than one year and 229 elders who were aged less than 60 years old were eliminated. A total of 2512 nursing home elders were included in the study. Among them, there were 1308 (52.1%) men, and 1204 (47.9%) women. Their average age was 73.14 ± 6.746 (60–95) years.