Archives of Gerontology and Geriatrics 78 (2018) 261–268

Contents lists available at ScienceDirect

Archives of Gerontology and Geriatrics

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

Developing and testing a model of quality of life among chronically-ill, community-dwelling older adults: A structural equation model

Claudia Erika Amor M. Buco, Keith Anthony C. Buenviaje, Rialin Bettina C. Bulan, Reineir James L. Cabaña, Maria Karlene S. Cabuhat, Maria Victoria V. Bongar, John Rey B. Macindo*

College of Nursing, University of Santo Tomas, España Boulevard, Manila, 1015, Philippines

ARTICLE INFO

Keywords:
Community satisfaction
Community-dwelling older adults
Quality of life
Disease self-management
Spirituality
Philippines

ABSTRACT

Purpose: Although healthy ageing aims for better quality of life, the inability of older adults to adequately care for themselves and their health impair the realization of such objective. Moreover, in a collectivist community like the Philippines, the family, community, and Transcendent are inseparable in promoting quality of life. This study developed and tested a model of quality of life (QoL) among chronically-ill, community-dwelling older adults.

Materials and Methods: From August to November 2017, a cross-sectional study of 304 chronically-ill, community-dwelling older adults from selected rural communities in the Philippines was conducted. Respondents completed a five-part survey packet composed of the socio-demographic profile, modified Older People's Quality of Life, Spirituality Assessment Scale, Hypertension Self-Care Profile, and Diabetes Self-Management Questionnaire.

Results: Socio-demographics, community satisfaction, spirituality, and disease self-management accounted 29.00% of QoL, generating a good model (χ^2/df = 1.44, RMSEA = 0.038, and PNFI = 0.64). Spirituality ($\beta = 0.34$, $p < 0.01$) was the strongest predictor of QoL, while community satisfaction had both direct ($\beta = 0.26$, $p < 0.01$) and indirect ($\beta = 0.08$, $p < 0.01$) effects. Disease self-management directly ($\beta = 0.15$, $p = 0.016$) influenced QoL. In contrast, longer chronicity and larger family size impair QoL.

Conclusion: Quality of life among chronically-ill, community-dwelling older adults is a multi-faceted health construct influenced by socio-demographics, disease self-management, community satisfaction, and spirituality. The presented model highlights the positive effect of disease self-management, community satisfaction, and spirituality which can be utilized in developing appropriate community-based geriatric strategies, policies, and programs. Further, forming collaborative groups with socially-active community elderly and community-based self-care programs can be ventured to address the needs of older adults.

1. Introduction

Globally, the rapid increase in the population of older adults has become unprecedented in the previous years. The United Nations (2015) even projected that the elderly population will grow by 56% between 2015 and 2030, accounting 1.40 billion of the global population, and will eventually reach approximately 2.10 billion in 2050. It was even estimated that Asian countries, which include the Philippines, will rank second among those with the fastest inflation in elderly population, with a predicted increase of as much as 66%. In the Philippines, around 7.90% of the population in 2013 was composed of older adults, with most of them living in the rural areas (Philippine Statistics Authority, 2014). Such change in both national and global population, however, has certain ramifications such as higher prevalence of chronic diseases, greater healthcare needs, and elevated disease burden, all of which may affect an older adult's quality of life.

The concept of quality of life (QoL) has been the focus of all healthcare programs and interventions for older adults. Defined as the "*individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals,*

* Corresponding author.
E-mail addresses: claudiabuco@gmail.com (C.E.A.M. Buco), keithbuenviaje143@gmail.com (K.A.C. Buenviaje), rbcbulan@yahoo.com (R.B.C. Bulan), reineiremail@yahoo.com (R.J.L. Cabaña), mkcabuhat@yahoo.com.ph (M.K.S. Cabuhat), mvbongar@ust.edu.ph (M.V.V. Bongar), johnreymasindo@yahoo.co.uk, janrei.masindo@gmail.com (J.R.B. Macindo).

https://doi.org/10.1016/j.archger.2018.07.013
Received 6 March 2018; Received in revised form 13 June 2018; Accepted 16 July 2018
Available online 17 July 2018

expectations, standards and concerns" (The WHOQoL Group, 1998, p.1570), quality of life entails physical health, psychological status, independence level, and social and environmental relationships. Although the goal of healthy ageing is promoting quality of life, a myriad of factors, including socio-demographic, environmental, physiologic, and psycho-spiritual characteristics, impair the realization of such objective among older adults. Some of these factors that have received much attention in previous studies are chronic diseases (Varni, Limbers, & Burwinkle, 2007), family size (Chandra, 1983), community satisfaction (Sirgy, Rahtz, Cicic, & Underwood, 2000), disease self-management (Yu, Guo, & Zhang, 2014), and spirituality (Soriano, Sarmiento, Songco, Macindo, & Conde, 2016).

Older adults are commonly afflicted by chronic diseases such as hypertension and diabetes. According to the World Health Organization (2017) and the GBD 2015 Risk Factors Collaborators (2016), non-communicable or chronic diseases are the leading causes of morbidity and mortality, accounting approximately 80% of annual global death. Chronic diseases limit the mobility, physical activity, function, and activities of daily living of older adults (Boing et al., 2012) and necessitate longer treatment periods (Lima et al., 2009). As a result, older adults with chronic diseases have poorer quality of life, especially if they live in a community and a family with scarce healthcare resources. Ghimire, Pradhananga, Baral, and Shrestha (2017) even posited that the needs of hypertensive older adults living with a large family compete with other family demands which lead to stress and poorer quality of life. However, in a collectivist community such as the Philippines, having a large family is very common and has been associated with several positive effects such as better spiritual satisfaction (Kim, Kim-Godwin, & Koenig, 2016), less mental health disabilities, and better social relations (Mitchell & Kemp, 2000).

Noting that older adults are commonly afflicted by chronic or non-communicable diseases, it is imperative to adopt appropriate self-care behaviors (Mcdonald-Miszczak, Wister, & Gutman, 2001). Disease self-management, defined as the process of maintaining health status through treatment adherence, symptom recognition, and monitoring and management (Tan, 2015), plays a significant role in positive quality of life among older adults. Several studies have shown that disease self-management aids patients with chronic illness in understanding, coping, and managing their conditions thus, leading to less negative health outcomes such as non-adherence, hospitalization, and poor health status (Riegel, Jaarsma, & Strömberg, 2012). Nonetheless, the relationship of disease self-management and quality of life among older adults is an area that needs further research, especially among community-dwelling older adults who have poor disease self-management (Marek & Antle, 2008). Likewise, there are limited studies in collectivist cultures or communities such as the Philippines, and it is an area in research that can be further explored.

As an environmental factor, community or neighborhood satisfaction has also received attention as a contributor of positive quality of life and spirituality among older adults. Since people spend most of their physical and social activities and interactions in the community (Ma, Dong, Chen, & Zhang, 2017), several aspects of well-being, including quality of life and spirituality, can be affected by the quality of home interior and exterior; the relationship with other residents; and, the local physical environment and its functionality, aesthetics, and health-related characteristics (Rioux & Werner, 2011). In the study of Ma et al. (2017), the safety, the physical and social environments, and the travel convenience in a community lead to greater life satisfaction. Likewise, Smith, Sim, Scharf, and Phillipson (2004) noted that older adults who were satisfied with their neighborhood had better quality of life. Despite these notable results, there is paucity of empirical evidence supporting the influence of community satisfaction to spirituality and quality of life in the Philippine-setting where both societal and cultural norms are greatly different from those in Western and European countries.

In a different light, spirituality, which refer to the "*experiences and expressions of one's spirit in a unique and dynamic process reflecting faith in God or a Supreme Being; connectedness with oneself, others, nature, or God; and integration of the dimensions of mind, body, and spirit*" (Gaskamp, Sutter, & Meravigilia, 2006), has been a positive predictor of quality of life (Gaskamp et al., 2006; Soriano et al., 2016). Spirituality enables individuals to face problems, to cope with life, and to make sense of situations. In addition, spirituality is an essential component of positive ageing which gives older adults a sense of hope and meaning (Bartlett, Piedmont, Bilderback, Matsumoto, & Bathon, 2003; Titiksha, Shubha, & Krishna, 2015). Although spirituality has been long identified as a construct affecting health, it is often neglected and remains under-researched among the elderly population (Bekelman et al., 2010).

1.1. Study aims and hypotheses

From the abovementioned assertions, this study developed and tested a model of quality of life among chronically-ill, community-dwelling older adults illustrating the influence of socio-demographics, community satisfaction, disease self-management, and spirituality to quality of life. Particularly, this study answered the following inquiries: *what is the influence of socio-demographics, community satisfaction, disease self-management, and spirituality to quality of life*; and, *what is the parsimonious model illustrating the influence of socio-demographics, community satisfaction, disease self-management, and spirituality to quality of life among chronically-ill, community-dwelling older adults?* As presented in Fig. 1, listed below are the research hypothesis of this study:

H1a. Socio-demographics (family size and duration of illness) influence disease self-management among chronically-ill, community-dwelling older adults.

H1b. Socio-demographics (family size and duration of illness) influence quality of life among chronically-ill, community-dwelling older adults.

H1c. Socio-demographics (family size and duration of illness) influence spirituality among chronically-ill, community-dwelling older adults.

H2a. Community satisfaction influences disease self-management among chronically-ill, community-dwelling older adults.

H2b. Community satisfaction influences quality of life among chronically-ill, community-dwelling older adults.

H2c. Community satisfaction influences spirituality among chronically-ill, community-dwelling older adults.

H3. Disease self-management influences quality of life among chronically-ill, community-dwelling older adults.

H4. Spirituality influences quality of life among chronically-ill, community-dwelling older adults.

2. Materials and methods

2.1. Research design

We utilized a cross-sectional design in developing and testing the model of quality of life presented in Fig. 1.

2.2. Setting and study participants

We invited a total of 304 purposively-selected community-dwelling older adults who were at least 60 years old, were medically-diagnosed of hypertension and/or diabetes mellitus, were on maintenance medication and medically-stable, and had no diagnosed psychological or psychiatric condition. However, we did not include older adults with overt complications of hypertension and diabetes mellitus (i.e., neuropathies, foot ulcers, renal and heart failures) and physical disabilities. Post-hoc power analysis, using GPower 3.1.7, showed that 304