

**Title:**

Severity and Associated Factors of Participation Restriction Among Community-Dwelling Frail Older People

**Yat-wa Justina Liu, PhD**

*School of Nursing, The Hong Kong Polytechnic University, Hong Kong, Hong Kong*

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**Session Title:**

Health Promotion in the Geriatric Patient

**Slot:**

A 07: Saturday, 28 October 2017: 2:15 PM-3:00 PM

**Scheduled Time:**

2:15 PM

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**Keywords:**

Frailty, Participation restriction and WHO-ICF

**References:**

Organization WH, International Classification of Functioning, Disability and Health: ICF. World Health Organization, 2001.

**Abstract Summary:**

After attending this presentation, participants should be able to identify the prevalence and the underlying risk factors which are associated with participation restriction among community-dwelling frail older people under International Classification of Functioning, disability and Health (WHO-ICF) model

**Learning Activity:**

<b>LEARNING OBJECTIVES</b>	<b>EXPANDED CONTENT OUTLINE</b>
The learners will be able to understand how to apply International Classification of Functioning, disability and Health (WHO-ICF) model to understand different health-related issue.	An example of applying IWHO-ICF model for the identification of underlying risk factors of participation restriction among community-dwelling frail older people will be illustration
The learners will be able to recognize the concept of participation restriction and its associated factors	A cross-section study of 299 community-dwelling frail older people will be explain in order to explain the concept as well as the associated factors of participation restriction.

**Abstract Text:**

Under the WHO-ICF, disability is multi-dimensional which includes impairments (i.e. a problem in body function or structure), activity limitation (i.e. a difficulty in encountering an individual a task or action), and participation restriction (i.e. a problem experienced by an individual in involvement in life situations). All these aspects of disability are dynamically interacted with individual's health condition, personal and environmental factors [1]. Among these three aspects of disability, level of participation restriction is seldom viewed as an indicator to reflect one's health conditions. Thus, it is seldom assessed or explored in both clinical and research settings, particularly among older people. In view of this, this cross-sectional study aimed to identify the prevalence and the underlying risk factors which are associated with participation restriction among community-dwelling frail older people.

A Cross-section study of 299 community-dwelling frail older people with mean age of 79.5 participated in this study. They must be identified to be either pre-frail or frail based on Fred Frailty index. Their level of participation restriction was assessed based on Chinese Reintegration to Nursing Living Index (C-RNLI). All other independent variables were identified and systematically linked to the different components in the WHO-ICF model which included

1) personal and health factors (such as their age, gender, levels of frailty, numbers of disease, prescribed medication, hospitalization and falls in the past 12 months. Chinese version of Charlson comorbidity index (C-CCI) was used to assess participants' levels of comorbidity)

2) environmental factors (such as self-perceived socioeconomic status, living alone or with family and social network)

3) body functions and structures (such as level fatigue, nutrition status, sleep quality, depressive mood, pain level)

4) activity level (such as instrumental activity of daily living, mobility, physical activity level)

IBM SPSS Version 23.0 was used to run the statistical data analysis. The chi-squares tests were used to compare proportions. Student's t tests were used to compare means so as to examine the associated risk factors among participants with or without participation restriction. Multiple logistic regression analysis was performed. Regression coefficients, adjusted odds ratios (ORs) with corresponding 95 % confidence intervals (CIs) and p-values are presented. ORs were used to evaluate risk factors associated with or without participation restriction. Demographic and health condition related variables such as age, sex, number of diseases suffered as well as number of medications taken, and falling history were included in the model. In addition, model also includes variables related to environmental factors, body functions and structures (impairment) and activity limitation. All statistical tests were two-tailed and variables were considered significant at a significance level of 0.05.

The results have shown that among all participants, 207 participants (69.2%) were identified of having participation restriction in at least one aspect of their life with the mean C-RNLI score of 68.3 (SD 19.43). Multivariate regression analysis showed that participants' status of frailty, self-perceived social status, level of exhibited depressive mood, sleep quality, mobility, level of fear of falling and physical activity levels have significant association with participation restriction. When including all variables regardless of their significance, all factors explain 67.1% of variance in participation restriction.

In conclusion, participation restriction is common among community-dwelling frail older people. It was associated with risk factors across different components in the WHO-ICF model. This finding supports the fact that participation restriction is multifactorial in nature. In view of some modifiable risk factors were identified in this study, multifactorial interventions targeting the modifiable risk factors should be developed and evaluated in the future studies so as to reduce participation restriction among frail older people.