

Since the population ageing trend has increased rapidly in the beginning of 21<sup>st</sup> Century, “ageing in place” become a core concept in most ageing related policies. Among all the issues regarding population ageing, high vulnerability from natural disasters would be the most challenging. With the increasing casualty reports of older residents at high-disaster-risk areas, urgent responses to this increasing threats to enhance the survival chances of older people under disasters are needed. Latest World Cities Risk (2015–2025) report by the Cambridge Centre for Risk Studies in 2015 has pointed out that Taipei City is ranked as top one city with high exposure to natural disaster hazards in the world in the next decade. Hong Kong, whereas, is also identified with significant vulnerability by the threat of human pandemic under disaster strikes. (Cambridge Centre for Risk Studies, 2015) According to the past survey, urban or rural, most elderly population in the community are not only with very little knowledge of disaster risk reduction but also lack of interests in learning such information. (Chao & Huang, 2016) Hence, this paper argues that it is necessary to develop a bottom-up Disaster Risk Reduction (DRR) strategy that involves older adults from the beginning of planning process. In this paper, we explore the possibility of creating a comprehensive community disaster risk reduction (DRR) system by incorporating the idea “ageing-in-place” and “active ageing” through literature review and questionnaire survey of older adults in both Taiwan and Hong Kong. We expect to identify the key factors of the gap between disaster perceptions of older people and DRR policy design and further suggest an ageing-active DRR strategy in both cities.

#### A COMPARATIVE STUDY ON THE ACKNOWLEDGMENT OF DISASTERS BY ELDERLY LIVING STATUS

Y. Choi, S. Choi, H. Kim, S. Kweon, *Busan National University, Busan, Korea (the Republic of)*  
Design

Due to some kinds of natural disasters caused by the recent change in climate, such as, heat waves and cold waves, etc., the damages are being expanded centered on the elderly class. In case of the elderly, it can be said that the levels of their exposure to a safety accident are higher than those of the other age classes due to their psychological and social vulnerabilities as well as their physical one. Accordingly, various kinds of programs, such as, Disaster Response Manuals and Disaster Helpers, etc., are being disseminated. However, this study was started under the assumption that the damage levels might be different depending on the actual acknowledgment levels of disasters by the elderly and the levels of their preparedness. Especially, it is intended to conduct a comparative analysis of what kinds of differences are made depending on the environments of the houses that the elderly live.

It is considered that this study has its meaning as an exploratory study in the aspect that a comparative survey has not been conducted regarding to the special situation so called a disaster even though the importance of the living space is very important for the elderly.

#### Method

Busan Metropolitan City entered into the aged society quickly the most among the Special City and all of the Metropolitan Cities. Accordingly, the survey targets are the elderly who live at the welfare facilities and at their homes

located in Busan. And the survey will be conducted regarding to the acknowledgment levels of disasters by the elderly and the levels of their preparedness. The collected data shall be used for conducting a regression analysis using SPSS 22.0 in order to find out what kinds of effects are influenced on the acknowledgment levels and the disaster preparedness of the elderly who live in the welfare facilities and at their homes.

### SESSION 3565 (POSTER)

#### ASSESSMENT I

##### FAMILY FUNCTIONALITY IN COMMUNITY ELDERLY

L. Rodrigues, D.M. Tavares, N.F. Molina, T. Silveira, S.E. da Silva, *Nursing in Education and Community Health, Universidade Federal do Triângulo Mineiro - UFTM, Uberaba, Minas Gerais, Brazil*

This work analyzed the influence of socio-demographic, economic and health variables, as well as functional capacity about family functionality. It was a cross-sectional quantitative study of 637 elderly living in Uberaba, MG, using Mini-Mental State Examination, structured questionnaire with socio-demographic, economic and health information, Katz Index, Lawton and Brody Scale and family APGAR. Analysis was conducted using the tests: t Test, Pearson’s and Spearman’s correlation and multiple linear regression model ( $p < 0.05$ ). Highly functional families prevalence (87.8%) was found, with severe dysfunction (6.4%) and moderate dysfunction (5.8%).

Factors associated to family functionality were: health perception ( $p < 0.001$ ), age ( $p = 0.003$ ), falls ( $p = 0.004$ ) depression ( $p = 0.007$ ). Higher family functionality was associated to better health perception and older age to depression and falls. Detection of factors generating family dysfunction provides health professionals with action planning directed towards the prevention or re-establishment of the balance of the intra-family bonds, promoting the well-being of elderly and their family.

##### SARCOPENIA PREVALENCE ACCORDING TO DIFFERENT MUSCLE MASS ASSESSMENT METHODS IN DWELLING ELDERLY

C.H. Schwanke<sup>1</sup>, K.M. Margutti<sup>2</sup>, A.R. Costodio<sup>2</sup>, N.J. Schuch<sup>2</sup>, M. Daroncho<sup>2</sup>, *1. Institute of Geriatrics and Gerontology, Pontifical Catholic University of Rio Grande do Sul, Porto Alegre, RS, Brazil, 2. Centro Universitário Franciscano, Santa Maria, RS, Brazil*

Introduction: The European Working Group on sarcopenia in Older People proposes different methods to diagnose sarcopenia. In this context, this study aimed to determine the prevalence of sarcopenia, using different methods for assessing muscle mass.

Methods: Cross-sectional study with 404 elderly subjects (60 years old or more) who participate in social groups in Santa Maria/Brazil. Muscle mass was assessed by three different methods [method 1 (Lee equation, improper  $\leq 8.90 \text{ kg/m}^2$  for men and  $\leq 6.37 \text{ kg/m}^2$  for women); method 2 (bio impedance, inadequate  $\leq 8.87 \text{ kg/m}^2$  for men and  $\leq 6.42 \text{ kg/m}^2$  for women); and method 3 (calf circumference, inadequate  $< 31 \text{ cm}$ )]. We considered inadequate hand grip strength (HGS)  $< 30 \text{ kg/f}$  for men and  $< 20 \text{ kg/f}$  for women, and physical performance

(assessed by Gait Speed - GS)  $\leq 0,8\text{m/s}$ . We considered sarcopenic individuals who had low muscle mass associated with low physical performance or reduced strength. Three diagnostic criteria were established: criterion 1 (method 1 + HGS + GS), criterion 2 (method 2 + HGS+ GS) and Criterion 3 (method 3 + HGS+ GS). Data were analyzed through the SPSS® 22.0.

Results: The mean age was  $70.23 \pm 6.40$  years. The sarcopenia prevalence by criterion 1 was 11.6% and 10.2% in women and men respectively ( $P = 0.923$ ), 27.9% and 55.9% ( $P = 0.000$ ) by criterion 2, and 1.2% and 1.7% ( $P = 1.000$ ) by criterion 3.

Conclusion: The prevalence of sarcopenia differs among the methods of muscle mass assessment and calf circumference underestimated its prevalence.

#### EASYCARE STANDARD INSTRUMENT FOR EARLY DETECTION OF GERIATRIC SYNDROMES IN THE VERY OLD

A. Halder, A.B. Dey, P. Chatterjee, A. Chakrawarty, *GERIATRIC MEDICINE, ALL INDIA INSTITUTE OF MEDICAL SCIENCES(AIIMS), NEW DELHI, DELHI, India*

In a country with a large ageing population and a health system of debatable efficiency, accessing and receiving health care in twilight years is not an easy proposition. Chronic disease, functional impairment, cognitive decline, lack of social and health security; and declining traditional support system render the “older” segment of the population extremely vulnerable. With very little orientation in old age care, health professionals do not have capacity to resolve complex geriatric syndromes in busy outpatient clinics. We assessed the ability of EASYCare in assessment of vulnerable older clients in outpatient department in detecting geriatric syndromes vis-à-vis comprehensive geriatric assessment. In this cross sectional study persons aged 65 years or more seeking care from Outpatient Department(OPD) of Geriatric Medicine service of All India Institute of Medical Sciences Hospital in India were included. 600 consenting participants were assessed with the EASYCare Standard 2010 instrument, which was self-administered with the help of a trained Medical Social Worker. This was followed by independent comprehensive assessment by a geriatrician which specifically included of Hindi Mental State Examination (HMSE), Geriatric Depression Scale (GDS), International Consultation on Incontinence Questionnaire (ICIQ), and fall questionnaire. Four geriatric syndromes, namely, cognitive impairment, depression, falls and urinary incontinence were used as index syndromes for this study. The mean age of the participants was 71 years with a significant male predominance (70%). One or more geriatric syndromes were present in 77% of the individuals with 2% having all four geriatric syndromes and 42% having two or more geriatric syndromes. Based on EASYCare assessment, cognitive impairment was the most common geriatric syndrome (62%), followed by depression (36%), falls (24%), and urinary incontinence (14%). The prevalence of incontinence and cognitive impairment showed significant association with increasing age ( $\{p < 0.05\}$ ,  $\{p = 0.01\}$ ). EASYCare assessment data showed a concordance of 98%, 70%, and 40% with CGA assessment for incontinence, depression, cognitive impairment respectively. EASYCare could detect very relevant geriatric syndromes in

older patients in an OPD setting in a time and cost efficient manner.

#### THE ESTABLISHMENT OF COMPREHENSIVE EVALUATION PERIOPERATIVE EVALUATION SYSTEM AMONG ELDERLY PATIENTS

B. Dong, A. Yang, Q. Hao, *West China Hospital, Sichuan University, Chengdu, Sichuan, China*

**Background:** The rate of postoperative complication in older patients is significantly higher than younger patients. However, there is no standard, effective perioperative evaluation strategy which is particularly developed for older adults in China. Thus, this study was conducted to develop a perioperative assessment system for the elderly according to several guidelines and the national condition in China, evaluate its feasibility and reliability. **Methods:** According to the Best Practices Guidelines: Optimal Preoperative Assessment of the Geriatric Surgical Patient established by the American College of Surgeons (ACS) and the American Geriatrics Society (AGS), the suggestion of geriatrician, psychiatrist, statistician and neurology expert and national condition in China, we developed a perioperative assessment system for the elderly in China. According to the data of preliminary study, we evaluated the quality of the perioperative assessment system, including feasibility and reliability. **Results:** The content of our perioperative assessment system, including cognitive function, depression, function status, swallowing function, nutritional status, medication, pain, sleep, delirium, frailty, vision and hearing. Feasibility : Both of the acceptance rates were 100%, the completion rates were 97.3% and 100% respectively. The mean time to finish the assessment was  $12.64 \pm 1.89$  minutes. Reliability : The test-retest coefficients of each result of assessment for risk factor were all higher than 0.9 except for the “Frailty” which test-retest coefficient was 0.895. **Conclusion:** The perioperative assessment strategy has been proved to have good feasibility and reliability, and therefore offers a valid tool to evaluate perioperative risk factors for poor surgical outcomes in Chinese elderly.

#### AGE-RELATED DIFFERENCE IN PERFORMANCE OF A COMPLEX ACTIVITY IN A REAL VERSUS SIMULATED SHOPPING MALL

R. Kizony<sup>1,2</sup>, I. Baum-Cohen<sup>3</sup>, P.L. Weiss<sup>2</sup>, G. Zeilig<sup>3,4</sup>, M. Bondi<sup>3</sup>, M. Kafri<sup>2</sup>, 1. *Center of Advanced Technologies in Rehabilitation, Sheba Medical Center, Tel Hashomer, Israel*, 2. *University of Haifa, Haifa, Israel*, 3. *Sheba Medical Center, Tel Hashomer, Israel*, 4. *Tel Aviv University, Tel Aviv, Israel*

Age-related decline in physiological, physical and cognitive functions may interfere with task performance in complex life situations. This study aims to compare the performance of young and older adults during real and simulated complex daily shopping activities considering physiological, motor and cognitive performance. Fifteen adults aged  $25.80 \pm 4.25$  years and 16 older adults aged  $72.12 \pm 5.58$  years were tested in real and simulated shopping malls. Participants performed the Multiple Errands Test (MET) that assesses executive functions during a complex daily task in the real mall. They performed the Virtual MET (VMET) in the simulation while walking on a self-paced