

THE FRACTURE LIAISON SERVICES (FLS) PROGRAM IN THE NATIONAL TAIWAN UNIVERSITY HOSPITAL (NTUH) HEALTHCARE SYSTEM

L. Kun-Pei¹, D. Ding-Cheng¹, H. Wei-Jia¹, W. Tze-Hong², C. Hsuan-Yu³, C. Chirn-Bin⁴, Y. Tsung-Han⁵, F. Shau-Huai⁶, Y. Rong-Sen³

¹Dept. of Geriatrics and Gerontology, National Taiwan University Hospital, Taipei, ²Dept. of Orthopedics, National Taiwan University Hsin-Chu Hospital, Hsin-Chu County, ³Dept. of Orthopedics, National Taiwan University Hospital, Taipei, ⁴Dept. of Internal Medicine, National Taiwan University BioMedical Park Hospital, Chu-Tung Campus, Hsin-Chu County, ⁵Dept. of Orthopedics, National Taiwan University Hsin-Chu Hospital, Hsin-Chu County, ⁶Dept. of Orthopedics, National Taiwan University Hospital Yun-Lin Branch, YunLin County, Taiwan

Objective: Since 2014, the National Taiwan University Hospital (NTUH) Healthcare system established 5 fracture liaison services (FLSs). We aimed to compare the characteristics and 1-year outcomes of the 5 programs.

Methods: Totally 1160 patients (including 473 from main hospital, 127 from Bei-Hu Branch, 234 from Hsin-Chu Branch, 143 from Chu-Tung Branch and 183 from Yun-Lin Branch) were enrolled, with unified protocol adapted from the 13 best practice framework (BPF) standards published by the International Osteoporosis Foundation. We performed baseline assessments and provided follow-up care for 1-year outcomes. Patients with new hip fractures or newly identified vertebral fractures received osteoporosis-related evaluations, treatments, consultations on diet, medications, exercise, fall preventions provided mainly by care managers at baseline. Patients were followed by telephone every 4 months for one year.

Results: The mean age for the entire cohort was 78.2 ± 9.7 years with 74.8% female. At baseline, there were significant differences in many characteristics. In fracture type, there were more than 40% hip fractures in main hospital, Hsin-Chu Branch and Yun-Lin Branch, but there were 0% in Bei-Hu Branch and 16.8% in Chu-Tung Branch. In medication prescribing pattern, there were more than 20% no used in main hospital and Bei-Hu Branch, but there were under than 10% no used in Chu-Tung Branch and Yun-Lin Branch. One-year mortality was 8.5%. There were significant differences between 5 hospitals in overall mortality (NTUH 11.2%, Bei-Hu Branch 0.8%, Hsin-Chu Branch 9.8%, Chu-Tung Branch 5.6% and Yun-Lin Branch 7.7%, $p < 0.001$) and mortality with spine fracture (NTUH 10.0%, Bei-Hu Branch 0.8%, Hsin-Chu Branch 9.8%, Chu-Tung Branch 5.0% and Yun-Lin Branch 8.9%, $p = 0.01$), but not significant differences in hip fractures. The annual recurrent fracture rate was 2.7% without significant differences observed among 5 hospitals.

Conclusion: The differences of 5 hospitals were demonstrated in some baseline characteristics. After one year of service, patients had significant differences among 5 hospitals in overall mortality and mortality with spine fractures.

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HEALTH DETERMINANTS OF INFORMAL CAREGIVERS AGED 65 YEARS AND OVER

F. Buckinx¹, S. Adam², M. Aubertin-Leheudre³, M. De Saint Hubert⁴, A. Mouton⁵, F. Potier⁴, J.-Y. Reginster¹, O. Bruyère¹

¹WHO Collaborating Center for Public Health aspects of Musculoskeletal Health and Ageing, Division of Public Health, Epidemiology and Health Economics, University of Liège, Belgium, Liège, Belgium, ²Psychology of Aging Unit, University of Liège, Belgium, Liège, Belgium, ³Laboratoire du muscle et de sa fonction, université du Québec à Montréal, Québec, Canada, Montréal, Qc, Canada, ⁴Dept. of Geriatric Medicine, CHU UCL Namur, Yvoir, Belgium,

Institut de Recherche Santé Société, UCLouvain, Belgium, Louvain, Belgium, ⁵Dept. of Sports Sciences, Research Unit for a life-Course perspective on Health & Education-RUCHE, University of Liège, Belgium, Liège, Belgium

Objective: Informal caregivers (i.e. family and relatives) are often concerned about the health of the people they help but their own health status and its determinants have been little understood. Therefore, this study aimed to fill this gap by comparing the health determinants of older informal caregivers with those of the older population.

Methods: An online survey was designed to investigate the health determinants of people aged 65 years and older, and in particular informal caregivers. The Zarit scale of caregiver burden was collected only for those being informal caregiver. Then, socio-demographic data, quality of life (SF-12), access to technology and level of physical activity (IPAQ) were assessed and compared between informal caregivers and the others.

Results: A total of 111 volunteers participated in the survey. The mean age was 70 ± 3.83 years and 71.2% of them were women. The majority of respondents (91.8%) were Belgian. One third of the respondents identified themselves as informal caregiver and declared to have severe burden (61.9 ± 15.2/88). Sociodemographic characteristics and access to technology were similar between informal caregivers and their non-caregivers counterparts. However, informal caregivers had a lower SF-12 score in the mental score domain (44.3 ± 10.2 vs; 50.7 ± 7.0; $p = 0.004$) and a lower level of physical activity (434 ± 312 vs. 1126 ± 815; $p = 0.01$) than their counterparts.

Conclusion: Informal caregivers reported lower quality of life and lower level of physical activity than their peers. As having a high level of physical activity is recognised to be a determinant of healthy living, this survey highlights the need for solutions to promote physical activity among older informal caregivers.

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DEVELOPMENT AND VALIDATION OF NEW EXERCISES TO PROMOTE PHYSICAL ACTIVITY IN NURSING HOME SETTINGS, THROUGH QUALITATIVE METHOD

F. Buckinx¹, L. Maton², V. Dalimier³, A. Mouton², L. Lengelé¹, J.-Y. Reginster¹, O. Bruyère¹

¹WHO Collaborating Center for Public Health aspects of Musculoskeletal Health and Ageing, Division of Public Health, Epidemiology and Health Economics, University of Liège, ²Dept. of Sports Sciences, Research Unit for a life-Course perspective on Health & Education-RUCHE, University of Liège, ³Research Unit for a life-Course perspective on Health & Education (RUCHE), Dept. of Sport Sciences, University of Liège, Liège, Belgium

Objective: The GAMotion is a giant physical activity boardgame intended to improve the level of physical activity and a broader array of physical and psychological outcomes among nursing home residents. The aim of the present study is to develop and validate new balance, flexibility, muscle strength and walking exercises to be included in the GAMotion.

Methods: A two-steps qualitative study combining Focus group and Delphi method was conducted among healthcare professionals divided into two independent samples of experts. The first sample was asked to develop exercises during a focus group. The second sample participated in a two-round Delphi method. During the first round, participants were asked to rate the exercises developed during the focus group on a 4-point Likert scale (from 1: not adapted at all to 4: very adapted). The exercises that did not reach consensus were removed (consensus established: median ≥ 3 in the Likert scale and