

(2) Long-term Care in Motion (EU-Project INNOVAGE), Department of Geriatric Research, Agaplesion Bethanien Hospital, Geriatric Center at Heidelberg University, Germany)

Background: Individuals living in nursing homes (NH) are characterized by a high prevalence of multimorbidity in terms of significant functional and cognitive impairment as well as depressive symptoms. These conditions are often associated with a sedentary lifestyle and low levels of physical activity (PA) with the risk of ongoing deteriorations in functional, cognitive and psychosocial status. In the light of such characteristics of residents as a day-to-day experience, NH staff can hardly imagine that a considerable increase in residents' PA is possible and feasible in principal terms and without taking too many risks. As a typical consequence, a dependency-supportive interaction style with the residents that again strengthens residents' sedentary behaviour has been reported in the previous NH related literature. Due to the key role of NH staff to trigger or hinder activity-related behaviour, the aim of the project "Long-Term Care in Motion" (LTCMo; subproject of the EU-project "INNOVAGE") was to develop, empirically evaluate, and disseminate a multi-component PA-enhancing intervention programme with staff as a major intervention component. As part of LTCMo, the feasibility of this intervention approach was examined in one NH setting in Heidelberg (Germany) with 107 beds. **Methods:** The competence training (CT) for nursing assistants, care supervisors, and activity coordinators was based on a theoretical framework which draws from well-established health psychology, self-regulation and life-span developmental models. The primary aim of the CT was to implement and enhance activity-encouraging staff behaviour. The CT consisted of 12 weekly (each session offered twice a week) in-house-training sessions with two major parts: (1) Eight introducing sessions of 60 minutes containing especially theoretical aspects about the project's mission (session 1), the importance of PA among NH residents (session 2), potential barriers and facilitating factors regarding PA promotion (session 3 & 4) and the role of communication strategies (session 5-8). The latter were also trained based on practical exercises. (2) The second part comprised four intervention sessions of 30 minutes including case-oriented discussions. Participation in CT was encouraged by compensatory time off or financial reward. 2 Immediately after each session, a formale evaluation was conducted by use of a short fully structured questionnaire. The participants were asked to assess a range of statements (e.g., about the relevance and comprehensibility of the respective session) on a five-point scale. At the end of the CT, an overall evaluation was obtained. **Results:** Sixty-three percent of the staff members (52/83) participated in at least one of the twelve training sessions. However, regular attendance was quite low. Only 13% of NH staff visited more than half of the sessions. Within each session, the number of participants varied between 11 and 21. The immediate feedback on the single sessions (overall response rate: 98%) was consistently very positive, suggesting that the contents were interesting, informative, well structured, comprehensible, relevant and useful. Furthermore, 79% of the participants rated the practical exercise component as largely or very helpful. The overall feedback (response rate: 40%) also revealed as largely positive. Overall, the majority of participants rated the sessions as very good (25%) or good (60%). **Conclusion:** The training concept of LTCMo seems to be rather promising. However, implementation into the daily care work was only partially feasible. In particular, regular participation in the CT was more the exception than the rule, thus undermining the full potential of the CT. Despite these challenges, we regard the CT as a very important component of a PA-enhancing intervention programme.

OC29- RELATIONSHIP BETWEEN AMBULATORY PHYSICAL ACTIVITY ASSESSED BY ACTIVITY TRACKERS AND PHYSICAL FRAILITY AMONG NURSING HOME RESIDENTS. O. Bruyère^{1,2,3}, J.Y. Reginster^{1,2}, N. Dardenne^{1,2}, J. Nelis³, E. Lambert³, G. Appelboom⁴, F. Buckinx^{1,2} ((1) Department of Public Health, Epidemiology and Health Economics, University of Liège, Liège, Belgium; (2) Support Unit in Epidemiology and Biostatistics, University of Liège, Liège, Belgium; (3) Department of Motricity Sciences, University of Liège, Liège, Belgium; (4) Neuro-digital Initiative, Columbia University, New York, USA)

Backgrounds: The aim of this study was to assess the relationship between the level of ambulatory physical activity, measured using a physical activity tracker, and the clinical components of physical frailty, among nursing home residents. **Methods:** we proceeded in 3 steps: The first step was the validation of the physical activity tracker (i.e. the Pebble): volunteer adults walked 3 times 15 minutes on a treadmill at three different speeds (2.5 km/h, 4 km/h and 5.5 km/h). The number of steps was recorded by 2 Pebble devices placed on the subjects (one at the foot level and the other one at the hip level). The number of steps registered by the Pebble was then compared, with the real number of steps counted by two investigators. Intra-class correlation coefficients (ICC) were then calculated. The second step was the measurement of ambulatory physical activity, using the Pebble trackers, over a 7-day period, among nursing home residents: volunteer nursing home residents wore the activity tracker on their shoes for seven consecutive days. The third step consisted in studying the relationship between the results obtained with the Pebble trackers (in step 2) and clinical characteristics, linked to physical frailty, of the subjects: a large number of clinical data had been collected for the subjects who wore a Pebble during step 2: body mass index (BMI), energy expenditure (Minnesota questionnaire), cognitive status (MMSE), nutritional status (MNA), quality of life (SF-36), level of autonomy (Katz), functional and motors skills (Timed Up and Go test, Tinetti test, Short Physical Performance Battery (SPPB)), fear of falling (FES-1), peak flow, grip strength, isometric strength of 8 different muscle groups (MicroFET2), frailty status (Fried), and body composition (Bioelectrical Impedance Analyzer, the InBody S10). These data were compared according to the level of ambulatory physical activity of the patient. **Results:** For the first step, the validation of the Pebble devices, 24 subjects were included (12 young

students aged between 21 and 30 years and 12 adults aged over 65 years). ICC data showed that the reliability of the Pebble, whatever the tested speed, is better when placed on the foot level. Under this condition, the ICC of the Pebble tracker assessing its reliability varied from 0.60 to 0.93 depending of the tested speed. For the second step, 27 nursing home subjects aged 86.7 ± 7.81 years were included in the study in order to measure the ambulatory physical activity, over a 7-day period. On average, residents walked 1678.4 ± 1621 (median = 1300) steps per day. The last step aimed to assess the relationship between the results obtained with the Pebble trackers and clinical characteristics, linked to physical frailty, of the subjects. As it could be expected, the energy expenditure, estimated by the Minnesota questionnaire, was significantly higher ($p=0.0003$) among people who walked more than 1300 steps per day than in those who walked less than 1300 steps a day. These subjects had also a significantly higher MMSE score ($p=0.005$), Katz level ($p=0.04$), Tinetti score (0.0003), SPBB score ($p=0.002$), peak flow ($p=0.001$), isometric strength of the 8 muscle groups tested (p -value ranged from 0.0003 to 0.01) and grip strength ($p=0.003$) as well as a significantly lower time required to perform the Timed up and Go test (0.0004) than subjects who walked less than 1300 steps per day. Moreover, subjects more active (i.e. >1300 steps/day) were significantly less frail (i.e. Fried score) than less active subjects ($p=0.0005$). No other significant difference was observed between the two groups. **Conclusion:** This study showed that ambulatory physical activity of nursing home residents, assessed using a physical activity tracker, is lower than currently recommended in the elderly. Lower ambulatory physical activity is associated with poorer muscular and physical performances.

OC30- RETURNING TO THE COMMUNITY FROM NURSING HOMES (NHS): BARRIERS AND FACILITATORS. R.A. Kane¹, H. Davila¹, T. Shippee¹, K. Abrahamson² ((1) School of Public Health, University of Minnesota, USA; (2) School of Nursing, Purdue University, Lafayette, Indiana, USA)

Background: In the US, most NH admissions are from hospitals, and usually start with a period of physical rehabilitation. Many residents go home or to a supported community residential setting within a few months of NH admission, whereas others move to a long-stay NH status. Many enter the NH with payment through Medicare, pay privately for long-stay units, and after exhausting their resources are subsidized by the state's medical assistance program. In 2010, the Minnesota Department of Human Services initiated a statewide Return to the Community Initiative (RTCI), in which social workers or nurses served as Community Living Specialists (CLSs) who worked with consenting privately-paying NH residents remaining in NHs for 60 days to facilitate a return to their own homes or other community living arrangements (with relatives or in group residential settings). The program was implemented through the 6 Area Agencies on Aging (AAAs) in Minnesota and in conjunction with Minnesota's Senior LinkAge Line, which maintains resource lists and provides telephone assistance to Minnesota seniors on insurance issues and locating resources. With funding from AHRQ, RTCI is being evaluated quantitatively and qualitatively to shed light on effects of the RTCI over time and the facilitators and obstacles to community discharge. This presentation presents the qualitative results. **Methods:** Qualitative methods had three foci: a) in-depth interviews with program personnel, i.e. the CLS's and the senior Linkage Line personnel in each AAA; b) in-depth interviews with NH discharge personnel with whom CLS must forge working partnerships; and c) case studies of persons discharged to the community with CLS assistance, in which we interviewed the elderly NH consumer, one or more family members, the CLS, and sometimes the NH discharge social worker and/or other community providers. Interviews were semi-structured with topics and probes for detail and examples; they were transcribed and analyzed for themes by multiple raters. Data for the presentation are derived from interviews with all CLSs twice (9 in 2012 and 28 in 2015); 60 LinkAge Line interviews in 2015; a round of 49 NH interviews in 2013 and 30 additional NH interviews in 2014; and 24 detailed case studies (each with 2-5 informant interviews plus review of program documents). **Results:** CLSs worked within protocol (standardized assessment, a 3-day post-discharge visit to the consumer in the community, and check-ins by phone 14, 30, 60, and 90 days after the discharge, but were also inventing details of a new practice. Some conducted most visits in person and all did in-person check-ins with those who had communication difficulties. We identified multiple CLS roles: decision advisor, resource expert, counselor, advocate, and educator. Minnesota NHs are well-staffed with social workers who work on discharge planning and initially NH staff often resented another person involved in "their work." CLS's spent time orienting NHs and demonstrating added value. By the last series of interviews, NHs were largely acknowledging the value of the follow-up that CLS's could do. In specific cases, with congruence among respondents, CLS were seen as being instrumental in sustaining an individual consumer in the community. The greatest obstacles to community return were attitudes among NH personnel, community physicians, CLS's themselves and sometimes family members that community-care would be unsafe. The catch-phrase "need for 24-hour care, was used by all respondents without much specificity. Assisted living settings sometimes refused to take people back when admitted to hospitals followed by NH rehabilitation, with their own catch-phrase, "not safe behind closed doors." RTCI has two ways to achieve its goals: a) move people from NHs who otherwise would not leave; or 2) assist people with maintaining workable plans after they leave NHs so they are not re-hospitalized and sent back to a NHs. The first result, literally effecting a transition that would not have otherwise occurred, happened only occasionally, though the presence of CLS's in NHs and their attendance at care conferences, may have changed the climate towards greater acceptance that persons with unstable health conditions, high ADL needs, and/or cognitive impairment could make a choice to leave NHs. The second result, helping keep discharged NH residents in the community occurred more often, with several dramatic examples of a CLS rescuing a consumer at the 3-day visit when no services had