Ontario, Canada; <sup>6</sup>Young Carers Initiative, St. Catharine's, Ontario, Canada.

Background: Children living at home with an early-onset dementia parent, especially if frontotemporal dementia, call for unique support, yet no educational materials have existed. On Nov. 15, 2011, we launched a website to address this need among adolescent caregivers. Methods: A total of 14 participants ranging in age from 11-18 years and covering an average of 3 years of hands-on caregiving connected to Skype for a semi-structured interview administered to small groups. A thematic analysis approach toward the transcripts identified themes through a coding scheme. Consultants from the Young Carers Initiative and McMaster University's Montessori Learning program for the aging then provided input re the emerging themes to shape web content. Focus group participants and other stakeholders then critiqued the beta version of the website before its launch.

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## A STUDY OF ADOPTING PEAP ENVIRONMENTAL MODIFICATION METHODOLOGY IN JAPAN: A CASE OF A NURSING HOME FOR DEMENTIA IN TAIWAN

Szu-Yu Tzeng, National Yunlin University of Science and Technology, Yunlin Taiwan

Background: According the survey of Taiwan Aizheimer's Disease Association in 2004, the percentage of residents with dementia was over 65.7% in nursing homes. Among Care Environmental Evaluation Scales, the Professional Environmental Assessment Protocol developed by Weisman in 1996 is the most famous one. Methods: This research will combine the theory and process of PEAP in Japan version, by case-study and carrying out workshop in a nursing home for the elderly with dementia. There are main purposes: (1) Utilizing the Professional Environmental Assessment Protocol (PEAP) to integrate the theory of user-participation design, and guide one nursing home to carry out workshop of care environmental improvement for the elderly and (2) to evaluate the effects after environmental modification. Results: In order for staff to get some degree of expertise and specialized training of using the PEAP, we carry out a workshop once a month from 2009/11 until 2010/12. The ideas and plan of environmental improvement were developed, discussed and rating by care staff. After conducting the modification plan, and evaluated the effectiveness after environmental improvement by questionnaire. The whole process is staffparticipant and pleasant. For the staff is main care power, and takes part in the PEAP workshop, making decisions, sharing and discussing ideas, and changed the environment by them. Most furniture is recycled from staffs, residents' family and volunteers. Effectiveness of Modification: Before modification, the atmosphere of nursing home is institutional with monotonous setting. Aftermodification, to form a home-like environment and residential setting, and helpstaff monitor residents easily. And, residents, staff and family used the spaces more actively, and with high value of the space. Conclusions: Through the workshop and study, we found for the staffs is lacking spatial concept, in stage of development modified plan, with the aids of 2D plan or 3D model will help them very much. PEAP theory is not popular and familiar to care staff in Taiwan. But after coming over the workshop, staffs became more actively to observe inconvenient of space usage, and adapted the space. We could conclude that PEAP is a useful skill and method to help care facility to execute environmental improvement.

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MEASURING TRANSITIONS INTO DEMENTIA AND COGNITIVE IMPAIRMENT: EVALUATING THE EFFICACY OF LONGITUDINAL SURVEY DATA IN THE PUBLIC DOMAIN

James McNally, Martha Sayre, University of Michigan, Ann Arbor, Michigan, United States.

Background: There is a long-standing interest in understanding individual transitions from unimpaired health to cognitive impairment. It has only been since the late 1980 that national longitudinal surveys have evolved that allow us follow healthy elders into later life and measure some of the risk patters associated with those who are afflicted with forms of dementia including Alzheimer's. A numbers of such studies now offer enough repeat measures that social and biomedical researchers can examine these populations and seek useful indicators of health changes associated with cognitive impairments. We have also seen an exciting increase in the limited number of studies that once looked at childhood health, cognition and socioeconomic status now extending their studies to follow their respondents into later life outcomes. Methods: NACDA, the largest repository of secondary data on aging and health in the U.S., reviewed data collections in the public domain that allow for the examination of transitions among respondents across time from good health to various levels of cognitive impairment including diagnoses of Alzheimer's. We ranked these studies by the level of detail they provided, the number of repeat measures they provided and the ability to analyze long term outcomes among the respondents. Results: NACDA identified several very useful studies, including the Health and Retirement Survey (HRS), the National Long Term Care Survey (NLTCS) as well as new studies such as the National Social Life, Health, and Aging Project (NSHAP) among others which offer opportunities for multidisciplinary research. NACDA also identified several emerging studies that may have a major impact on our understanding of early life impacts on later life outcomes such as Alzheimer's. NACDA will use these studies as examples of what could be done to promote multidisciplinary research in cognitive decline and the onset of Alzheimer's in the U.S. population. Conclusions: While not large in number, there are enough longitudinal studies that follow respondents as they transition from good health to cognitive impairment to allow researchers to work across social and biomedical disciplines in trying to understand social and environmental impacts on the risks of cognitive decline as part of the aging lifecourse.

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## INCREASED SENSITIVITY TO PAIN IN PATIENTS WITH ALZHEIMER'S DISEASE

Christina Jensen-Dahm<sup>1</sup>, Mads Werner<sup>2</sup>, Martin Ballegaard<sup>2</sup>, Jørgen B. Dahl<sup>3</sup>, Troels Staehelin Jensen<sup>4</sup>, Gunhild Waldemar<sup>5</sup>, <sup>1</sup>Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark; <sup>2</sup>Copenhagen University Hospital, Rigshospitalet, Copenhagen, Denmark; <sup>3</sup>Copenhagen University Hospital, Rigshospitalet, Denmark; <sup>4</sup>Aarhus University Hospital, Danish Pain Research Center, Aarhus, Denmark; <sup>5</sup>Copenhagen University Hospital, Rigshospitalet, Copenhagen, Denmark.

Background: Previous studies have shown a reduced reporting of pain and a lower use of analgesics in patients with Alzheimer's disease (AD) compared to healthy controls (HC). Previous experimental pain studies have shown that AD patients have an increased tolerance to pain, which may explain fewer complaints. We wished to investigate the perception of pain using heat and pressure stimuli in a population of mild-moderate AD. Methods: 28 patients with probable AD (MMSE 16-26) and 28 sex- and age -matched cognitively intact HC were examined using quantitative sensory testing with determination of warmth detection threshold (WDT), heat pain threshold (HPT) and suprathreshold stimuli. The participants were also tested using a pressure algometer with determination of pain threshold and tolerance. Results: We found no significant difference between groups for WDT (AD: 35.48 °C [33.88  $^{\circ}$ C - 37.15  $^{\circ}$ C]; HC: 34.83  $^{\circ}$ C [34.12  $^{\circ}$ C - 35.56  $^{\circ}$ C], p = 0.26) and HPT (AD: 40.27 °C [37.07 °C - 43.65]; HC: 41.78 °C [40.46 °C -43.15 °C], p = 0.14). We found a similar threshold for pressure algometry (AD: 112.59 kPa [87.8 kpa - 144.38 kPa]; HC: 135.21 kPa [114.18 kPa - 159.92 kPa], p = 0.15), but a significantly lower