night time behavior occurred very frequently in PDD patients, while disinhibition was relatively more common in the SVD patients. These results suggest that neuropsychiatric symptoms are more prominent in PDD and SVD patients than in AD patients with early stage of dementia, because PDD and SVD groups are more related deficits in the frontal-subcortical circuits. Acknowledgment: This study was supported by a grant of the Korea Health 21 R&D Project, Ministry of Health & Welfare, Republic of Korea (A050079).

P2-270 BEHAVIORAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA, OF COGNITIVE IMPAIRMENT NO DEMENTIA AND MILD ALZHEIMER'S DISEASE IN COMMUNITY-DWELLING ELDERLY

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Background: This study aimed to investigate the behavioral and psychological symptoms of dementia (BPSD) of cognitive impairment no dementia (CIND) in community-dwelling elderly, and compare them with BPSD of patients with mild Alzheimer's disease (AD). **Methods:** Community-dwelling 72 CIND patients and 21 mild AD patients participated. BPSD of patients were assessed with the Neuropsychiatric Inventory (NPI). Korean version of mini-mental state examination (MMSE-K), clinical dementia rating (CDR), and activities of daily living (ADL) were also assessed. **Results:** CIND group frequently manifested BPSD. The most common symptoms of CIND group were apathy (71%) and depression/dysphoria (65%), anxiety (31%), appetite/eating change (28%), sleep/night-time behavior (26%). There were significant differences in delusion, agitation/aggression, disinhibition, irritability/liability between the CIND and mild AD groups. However, there was no significant difference between the CIND and mild AD groups on total NPI scores. **Conclusions:** CIND was associated with significant BPSD, especially apathy and depression/dysphoria. There was no difference in the overall severity of BPSD between CIND and mild AD patients.

P2-271 DEMENTIA AND DISRUPTIVE BEHAVIOURS IN LONG-TERM CARE RESIDENTS: A LARGE-SCALE LONGITUDINAL SURVEY IN SOUTH WEST GERMANY

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Background: Dementia is a major cause for severe disablement and loss of quality of life in old age. Behavioural symptoms, such as disruptive behaviours/agitation, further reduce the quality of life of dementia patients and increase the distress of their caregivers as well. Estimates of the prevalence of disruptive behaviours indicate high rates among residents in long-term care (40% to over 90%). However, the research findings are inconsistent and large -scale longitudinal studies are sparse. The aim of this study was to determine the prevalence of dementia, and the frequency, the consequences, and prognosis for disruptive behaviours/ agitation among a large and typical sample of long-term care residents. **Methods:** A prospective survey was conducted based on all residents of 58 long-term care facilities in the state of Baden-Württemberg, Germany (n=5,453). Medication and treatment data together with assessments of dementia and disruptive behaviours/agitation (modified Cohen-Mansfield-Agitation-Inventory[1], mCMAI) were recorded at baseline and 18 months later. **Results:** 69.7% (95% CI: 68.4-71.0) of the residents were found to suffer from a dementia syndrome. 54% (95% CI%: 52.4-55.6) of these residents compared to 21.1% of the non-demented residents showed at least one disruptive behaviour within the past two weeks. Cross-sectionally, disruptive behaviour in dementia was associated with a significant higher use of psychotropic drugs as well as with a higher application of physical restraints. 75% of the demented residents with disruptive behaviours at baseline continued to show such behaviours 18 months later. Multilevel regression analyses revealed that disruptive behaviour/agitation at follow-up was significantly predicted by the following baseline variables: Greater cognitive impairment, disruptive behaviour, a younger age, use of psychotropic drugs, sustained mobility, and living in a dementia special care unit. **Conclusions:** The prevalence and persistence of disruptive behaviours in long-term care residents are high. The results point to risk factors for the development and persistence of such behaviours and underscore the need for more effective management and treatment strategies.

[1]Reference: Cohen-Mansfield J, Marx MS, Rosenthal AS. 1989. A description of agitation in a nursing home. *J Gerontol* **44**: M77-M84.

P2-272 ASSESSING ANXIETY AND AGITATION AMONG NURSING HOME RESIDENTS WITH ALZHEIMER'S DISEASE

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Background: Anxiety and agitation are common in older adults with Alzheimer's disease (AD). Among this population, anxiety and agitation have been associated with problems in the older adult-informal caregiver relationship and increased likelihood of nursing home placement due to caregiver burden, respectively. Once the older adult resides in the nursing home, the expression of anxiety and agitation places a significant burden on formal caregivers. Anxious and agitated behaviors are often perceived as disruptive by formal caregivers and increase formal caregiver burden by compounding job stress. Appropriate anxiety and agitation assessment instruments for older adults with AD will result in more accurate assessment and improved direct treatment and symptom management by formal caregivers. Accordingly, burden will be relieved by providing formal caregivers with the proper tools to assess anxiety and agitation in older adults with AD, resulting in decreased time managing disruptive behaviors, increased competency and confidence in the treatment of anxiety and agitation, and increased job satisfaction. However, before anxiety and agitation can be assessed, the construct of anxiety as it relates to older adults with AD must be refined. Overlap exists between the conceptualizations of anxiety and agitation, creating divergent views on the correlation between anxiety and agitation in cognitively impaired older adults and leading to confusion about the appropriate type of measure to use as AD progresses. Additionally, potential issues surrounding the reliability of assessment instruments designed for use by caregiver informants exist. **Methods:** The current pilot study examined 1) the relationship of anxiety and agitation in older adults with AD living in nursing homes and 2) the feasibility and acceptability of measures of anxiety and agitation among formal caregivers via direct observation and informant interviews using assessment instruments established for use in nursing homes and with formal caregivers. **Results:** Preliminary findings on the relationship between anxiety and agitation among older adults with AD in nursing homes, as well as the viability of formal caregivers assessing anxiety and agitation using sound instrumentation, will be presented. **Conclusions:** Recommendations for the accurate assessment of anxiety and agitation by formal caregivers, including the use of caregiver-friendly assessment instruments, will be discussed.

P2-273 DETERMINANTS OF PHYSICIAN REFERRALS TO PARTICIPATE IN ALZHEIMER'S DISEASE CLINICAL TRIALS

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Background: Despite the growing prevalence of Alzheimer disease (AD), recruitment into clinical trials is a problem faced by many clinical research centers. The majority of dementia patients are first evaluated by community physicians; however, physician perceptions of clinical research are unknown. Addressing this gap in understanding may improve clinical trial recruitment. **Methods:** A survey was distributed to 3,123 physicians in three states to assess internet use and perceptions of referral for clinical trials; 355 completed surveys were returned (12%). Survey items included accessing medical information via the internet and perceived benefits and barriers toward referral to clinical research. Logistic regression models examined predictors of clinical trial referral. **Results:** The mean age of respondents was 50.6 ± 10.8y; 70% were male, 78% Caucasian, 61% primary care providers; 63% used the internet >3 times/wk in their practice. No demographic differences were discovered between those who were likely (n=193) and unlikely to refer (n=162) for participation in a clinical trial. The fully adjusted, step-wise logistic model suggested that referral to clinical trials by community physicians is related to close proximity to a teaching hospital (OR:4.0, 95%CI:1.1-15.6) and availability of internet information regarding diagnostic evaluation (OR:2.3, 95%CI:1.1-4.7). Primary barriers to referral included concerns about exposure of patients to uncomfortable tests and procedures (OR:4.7, 95%CI:1.2-18.7) and lack of time to discuss research participation (OR:6.8, 95%CI:1.4-32.3) **Conclusions:** Proximity to a research center and adequate clinical tools for diagnostic decision making are strong predictors of clinical trial referral. Concern over risks and lack of time are strong barriers to referral. These results suggest that dementia outreach education should include an emphasis on: a) informing physicians on the importance of clinical trials in finding effective treatments, b) how to discuss research participation with patients and families in a time-efficient manner, and c) increasing awareness of importance and safety of tests and procedures that are likely to be required for research participation. Providing easy access to up-to-date and user-friendly educational materials on dementia diagnosis, treatment and care via the internet are likely to improve referrals of patients to AD clinical trials from the community.

P2-274 CHALLENGES TO RECRUITMENT AND RETENTION OF AFRICAN-AMERICANS FOR BIOMARKER RESEARCH

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Background: African Americans may have greater risk of AD and are underrepresented in dementia research. Factors influencing minority participation in AD research are not fully understood. Less is known about barriers to participation in more invasive biomarker studies. **Objectives:** To define barriers and facilitators to AD biomarker research participation among African Americans. **Methods:** Investigators conducted 11 focus groups with 70 African American participants. Participants responded to questions about barriers and facilitators for participation in AD research including imaging and lumbar puncture (LP) for collection of cerebrospinal fluid. The transcripts were independently reviewed by 2 investigators who identified themes to code transcripts. Data were organized by codes and analyzed. **Results:** Mean age of the focus group participants was 46 (range 21-86y); they were predominately female (61%). Concerns and attitudes were consistent across education, socioeconomic status, and gender. The importance of medical research and the merits of and barriers to participation were endorsed consistently across levels of education, occupation, or income. The fundamental reason for African Americans' lack of research participation is mistrust of the healthcare system. Negative perceptions of healthcare providers and health care infrastructure persist due to historical events, institutional racism, and healthcare disparities. The factors underlying mistrust color perceptions of clinicians and investigators. Other barriers included fear of adverse effects, insufficient dissemination of information of the rationale for research in the African American community, and inconvenience involved in participation. Factors preventing participation in biomarker studies include fear of the unknown and of adverse effects of medications or procedures, including a percieved high risk of paralysis and long term health problems associated with LP. Adverse outcomes from prior studies with African Americans are widely disseminated and passed down through generations. Altruism and relevance of research projects to the individual, their family members, or the African American community promote research participation. **Conclusions:** Important and pervasive barriers mitigate African American research participation. Increased participation in biomarker studies by African Americans will require development of trust, as supported by improved communication and a lasting interactive presence in the community by Alzheimer investigators and staff.

P2-275 VALIDITY OF TELEPHONE INTERVIEW FOR FUNCTIONAL OUTCOME IN POST-STROKE SUBJECTS

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Background: There have been several western validity studies of telephone interview such as cognitive status, activities of daily living, incidence of dementia, quality of life. But sub-analyses on the Korean population has not yet been reported. Telephone interview has potential advantages for clinical follow-up and community outpatients-based research. The objective of this study is to test the validity of telephone interview for functional outcome in post-stroke subjects and to further apply this model to dementia patients who is not able to come to the clinic. **Methods:** Of 1634 stroke patients having been admitted at our center from January 2000 to December 2006, 469 clinical follow-up patients were included in this study. We investigated baseline characteristics and telephone interview of Modified Rankin Score (MRS), NIH Stroke Scale at admission and at discharge, Barthel Index, mortality, and compared them outpatient real interview in intra-rater reliability. Method 1: Assess the telephone interview before 1 month of a scheduled clinic visit and reassess at clinic visit. Method 2: Assess at clinic visit and re-assess the telephone interview after 1 month at clinic visit. The telephone interview and clinic visit assessment included MRS, BI. Interval between telephone interview and clinic assessment was average 15 days. All analyses were carried out using SPSS. Characteristics including age, NIHSS score, MRS score, BI score calculated numerical mean. Intra-rater reliability was analyzed by calculated Cronbach alpha score. **Results:** We assessed 469 follow-up patients. Mean age of subjects were 63.4±11.6 and mean follow-up duration were 2.4±1years. Mean of initially measured MRS and BI were 1.5±1.2, 91.5±19.6 and secondary measured MRS and BI were 1.3±1, 93.3±17.6. Cronbach alpha score of MRS and BI were 0.95, 0.86. Cronbach alpha score of scales were above 0.7 so reliability between telephone interview with clinic interview was very high. **Conclusions:** The study showed telephone interview of BI & MRS is as valid as real-face to face interview. To assess the physical & functional outcome of the stroke patient and to the advanced dementia patient who is not able to be at OPD clinic, telephone interview by trained nurse specialist must be considered.

P2-276 LUMBAR PUNCTURE PROCEDURES ARE NOT A BARRIER TO RECRUITMENT INTO CLINICAL TRIALS FOR ALZHEIMER'S DISEASE PREVENTION

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