report an emotional event, can be believed, particularly those at an early disease stage who can provide details about the event and their report does not change after a brief time delay. This work should also be of interest to caregivers, service providers and others who strive to respectfully communicate with people with dementia.

O2-01-07 GOOD DAYS AND BAD DAYS IN DEMENTIA: RESULTS OF AN ONLINE SURVEY

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Background: Caregivers report that people with dementia commonly exhibit notable day to day fluctuation in cognition, functioning and behaviour. Even so, this phenomenon of ''good days and bad days'' has received comparatively little study. Here, we report the results of an online survey to better understand daily symptom variation (DSV) in people with dementia. **Methods:** Respondents were recruited from the DementiaGuide website (www.dementiaguide.com) that employs the SymptomGuide™ as an online symptom tracking tool. Visitors were offered free use of SymptomGuide™ in exchange for completing a survey about DSV. The recruitment ran from December, 2007 to October, 2009. **Results:** Of 991 SymptomGuide™ users during the recruitment period, 267 completed the survey, providing 145 profilees (55 men and 90 women) with dementia. The mean age of the people with dementia was 77 years. Two thirds of the profilees with dementia reported DSV. Respondents reported that 46% of the profilees (with both dementia and DSV) have 3-4 good or bad days a week, (range 1-7 days). In general, women exhibited more variability than did men. Of 97 profilees with DSV who could predict whether the day would be a ''good day'' or a ''bad day'', 82% could do so before noon (including 43% shortly after awakening). Of the top 10 symptoms profiled by the respondents, 8 overlapped with the top 10 symptoms profiled by all 991 SymptomGuide™ users. The most common symptoms reported for subjects with DSV were irritability, concentration, memory, conversation, communication, and contentedness and what respondents characterized as overall ''sharpness''. **Conclusions:** Daily symptom variability appears to be important and recognizable in the lived experience of people with dementia. How it impacts on test performance in clinical settings is not clear, but the reports of which symptoms most often show variability suggest that this might be important.-

O2-01-08 BEREAVEMENT AFTER THE DEATH OF FAMILY MEMBER SUFFERING FROM ALZHEIMER'S DISEASE: ETHNIC VARIATION AMONG FAMILY CAREGIVERS

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Background: Large, representative surveys that focus on the health and well being of the caregiver for an Alzheimer's suffer are rare. Even less is known about the bereavement or grieving process of the caregiver once the family member dies. The Resources for Enhancing Alzheimer's Caregiver Health (REACH) project represents one of the best examples of studies that systematically examine the lives of Alzheimer's caregivers and it remains underutilized due to its rich detail and multiple collection strategies. **Methods:** This paper used the Bereavement Component of REACH II, collected between 2001 and 2004. REACH II is unique as it tests a comprehensive caregiver intervention among three distinct racial/ethnic groups: Hispanics, African-Americans, and White. The study looks specifically at five areas of risk–depression, burden, self-care, social support, and patient problem behaviors–that are central to caregiver well-being and quality of life. We use this study to examine perform a detailed examination of ethnic variation in the bereavement process while controlling for other key socioeconomic factors. **Results:** Clear variation is seen by ethnic groups in the bereavement response to the death of family member due to Alzheimer's or its complications. Moderating factors such as relationship to the Alzheimer's sufferer, the emotional and physical health of the caregiver and their sociodemographic characteristics moderated this effect to some degree but significant differences in the bereavement process remained among the ethnic populations examined. **Conclusions:** The Resources for Enhancing Alzheimer's Caregiver Health (REACH) project offers unique insights into the challenges and responses caregivers face and make while caring for a family members suffering from Alzheimer's. Bereavement Component of REACH II allows us to see how caregivers respond when this burden is removed due to the family member. The ability to examine this process in relation to ethic variation adds additional insights. Future work will compare these findings to other studies of bereavement such as the Changing Lives of Older Couples (CLOC) study to examine how the death in the context of Alzheimer's caregiving may differ from other forms of bereavement.

MONDAY, JULY 12, 2010
ORAL
O2-02
CLINICAL DIAGNOSIS AND MCI

O2-02-01 PREDICTION OF ALZHEIMER'S DISEASE BY BETA-AMYLOID PLAQUES AND TAU PROTEIN IN FRONTAL CORTICAL BIOPSY

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Background: Amyloid β (Aβ) aggregates together with hyperphosphorylated tau (HPt) are considered diagnostic of Alzheimer's disease (AD). According to the amyloid hypothesis, accumulation of Aβ in the brain initiates AD pathogenesis and can be seen years before dementia. We analyzed whether Aβ and/or HPt in frontal cortical biopsies, obtained during evaluation of suspected normal pressure hydrocephalus (NPH), would predict later development of AD in the biopsied patients. **Methods:** Between 1991 and 2006, 468 patients with suspected NPH underwent ICP monitoring and right frontal cortical biopsy immunostained for Aβ and HPt. Until the end of 2008, 267 patients had died. Their hospital and autopsy records were reviewed for possible AD or other dementia, with adequate data on 253 patients. **Results:** Of the 253 cortical samples, 24 were Aβ+HPt+, 92 Aβ+HPt-, and 137 Aβ-HPt-. Of the 253 biopsied patients, 60 developed clinical AD in a median follow-up of 4 years. With logistic regression analysis and Aβ-HPt- as a reference, OD for later AD was 92.9 (95% CI 24.9 - 346, $p < 0.001$) with Aβ+HPt+, and 10.4 (95% CI 4.3 - 24.8, $p < 0.001$) with Aβ+HPt-. **Conclusions:** This is the largest follow-up study of patients assessed for the presence of Aβ and HPt in frontal cortical brain biopsy samples. (1) The presence of Aβ and HPt spoke strongly for the present or later development of clinical Alzheimer's disease, (2) Aβ alone was suggestive of Alzheimer's disease, and (3) the absence of Aβ and HPt spoke strongly against Alzheimer's disease.

O2-02-02 BRAIN Aβ AMYLOID MEASURES AND MRI ARE COMPLIMENTARY PREDICTORS OF PROGRESSION FROM MCI TO ALZHEIMER'S DISEASE

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Background: Biomarkers of brain Aβ amyloid deposition, measured either by CSF or PIB PET imaging, are significant predictors of future conversion from MCI to AD, as are MRI measures of brain atrophy (i.e. a biomarker of neurodegeneration). Our objective was to compare the ability of these two