follow- up. Finally, significantly more caregivers in the intervention group gave up unpaid work in order to care for the patients at the baseline measurement. No other differences between the groups were found.

Our results suggest that an integrated approach to dementia may have a positive effect on the amount of informal care since this amount increased more in the usual care group than in the intervention group after one year.

# CS06.04

Neuropsychiatric Symptoms (BPSD) in severe dementia

E.J. Byrne. Division of Psychiatry, University of Manchester, Manchester, UK

There is no generally accepted definition of Severe Dementia. The current evidence suggests that this stage of the dementia syndrome may have clinically relevant sub-divisions.

There is evidence to support the influence of the severity of dementia on neuro-psychiatric symptoms (either singly or in symptom "Clusters"). The frequency, type and impact of BPSD also change with the severity of Dementia (probably irrespective of aetiology).

The measurement of BPSD in severe dementia also poses challenges; Are the "Gold standard" measures (such as the NPI) appropriate in this stage?; Are stage specific measures of BPSD valid & reliable?; Do such measures encompass the range of symptomatology found in Severe Dementia?

How can we measure BPSD in Clinical Trials in Severe Dementia?

This paper will review the current "State of the art" in BPSD in Severe Dementia, drawing on collaborative studies from the European Alzheimer Disease Consortium (EADC).

# Symposium: Clinical and epidemiological perspectives of work-related disability in mental illness

# S23.01

Employment in neurological disorders: The role of psychiatric comorbidity

N. Glozier. The George Institute, Sydney, Australia

**Introduction:** Neurological disorders share many disability characteristics with psychiatric disorders, often affecting young adults and being "invisible". Many OECD countries policies are attempting to maintain people with health disorders in the workplace, often with little information upon which to work. This presentation will review current knowledge in stroke, epilepsy, MS and Parkinsons disease

**Material and Methods:** A literature review of Medline and Psychlit from 1986, with a particular emphasis upon modifiable risks factors for not being employed or leaving the workforce

**Results:** There were few studies in this area. This was identified in several country's guidelines as an area lacking evidence e.g. in stroke 20% are of working age yet there are no evidence based interventions for returning people to work. When evaluated, comorbid psychiatric and cognitive morbidity was commonly, but not completely

consistently, associated cross-sectionally and prospectively with poor work outcomes.

**Conclusion:** More attention to the psychiatric sequelae of these disorders may lead to interventions and strategies to alleviate work related disability.

## S23.02

Health status before, during and after disability pension award

S. Overland. University of Bergen, Bergen, Norway

**Background and Aim:** In high income countries, up to 12 percent of the working age population receive permanent disability benefits with minimal information on the consequences of this major event. We aimed to compare health status in future and past disability pensioners.

**Methods:** Data from the population based Hordaland Health Study (HUSK) in Norway 1997-99 (N=18 581), was linked to official disability benefits registries. We stratified participants who were awarded a disability pension before, during and after the health survey, and compared health status at different stages across these strata covering seven years before, to seven years after the award.

**Results:** Disability pensioners reported more physical conditions, somatic and mental symptoms, and lower Health Related Quality of Life (HRQoL) than the remaining sample, throughout the strata. The average number of physical conditions was similar across all groups defined by temporal proximity to disability pension award, but more medication prescription was reported after the award. However, we found a significant non-linear increasing trend in symptoms and a fall in HRQoL approaching the award, with a reversing of this trajectory afterwards. For most measures, the level of health problems was equal in the strata 3-7 years before compared to 3-7 years after award.

Conclusion: The design precludes any firm conclusions as to what causes the observed results, but candidate explanations include temporary health deteriorating effects from the disability pensioning process, beneficial effects of being removed from harmful work conditions and recovery after increasing health problems leading up to disability pension award.

## S23.03

Symptoms of anxiety and depression predict report of whiplash

A. Mykletun <sup>1,2,3</sup>, N. Glozier <sup>4</sup>, M. Henderson <sup>2</sup>, S. Overland <sup>1</sup>, H.G. Wenzel <sup>5</sup>, S. Wessely <sup>2</sup>, M. Hotopf <sup>2</sup>. <sup>1</sup> University of Bergen, Research Centre for Health Promotion, Bergen, Norway <sup>2</sup> Institute of Psychiatry, Kings College London, London, UK <sup>3</sup> Norwegian Institute of Public Health, Division of Mental Health, Oslo, Norway <sup>4</sup> George Institute, Sydney, Australia <sup>5</sup> Norwegian University of Technology and Science, Trondheim, Norway

**Background:** Previous cross sectional studies have reported increased anxiety and depression in individuals with whiplash trauma. The common interpretation is that the whiplash trauma increases the risk of developing mental disorders. The aim of the present study is to test an hypothesis on the opposite direction of causality, namely that symptoms of anxiety and depression increase the risk reporting whiplash trauma in the future.

**Methods:** We used longitudinal data from two waves of a public health survey in Norway, conducted in 1984-86 and 1995-97, where 37 792 individuals participated in both waves (response rate at