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

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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

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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

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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

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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

follow-up 68%). Mental health was screened for symptoms of anxiety and depression at baseline by self-report on 12 items (the Anxiety Depression Index-12). Self reported whiplash trauma was registered as a dichotomy at follow-up, and followed up with age at whiplash trauma in positive cases.

Results: Whiplash trauma was reported by 956 individuals at follow-up, whereof 277 were reported to have occurred between baseline and follow-up. Symptoms of anxiety and depression increased the likelihood of self-report of whiplash trauma at follow-up (OR=1.24 per SD increase in mental symptom load, 95% confidence interval 1.10-1.40, p<.001), adjusted for age and gender. Whiplash was associated with increased disability pension award.

Discussion: Our finding suggests that the increased level of psychopathology found in individuals with a history of whiplash trauma might partly be present already prior to the whiplash injury. This finding is contrary to the common conception of causality in the whiplash-mental health association.

Symposium: Recent findings in alexithymia research

S25.01

Alexithymia among finnish male prisoners

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Some earlier studies have reported a positive association between alexithymia and delinquency. We studied this association in a sample of Finnish prison inmates. A questionnaire including the 20-item Toronto Alexithymia Scale (TAS-20), the 13-item Beck Depression Inventory and questions on socio-demographic variables as well as current and previous convictions, was delivered to 209 male prisoners. Of these, 113 individuals (54.1%) aged 17-65 years (mean 33.5) returned the questionnaire acceptably filled in. From a general population study, 1300 men aged 30-50 years (mean 40.3) were drawn as a control group.

The prevalence of alexithymia (TAS-20 cut-off point 60/61) was 7.5% in the population sample and 26.5% in the prisoner sample (p<.001). In a logistic regression analysis, controlling for age, marital status, basic education and depression, being a prisoner was still highly significantly associated with dichotomous alexithymia (OR 2.60, p=.003). Moreover, the mean TAS-20 score differed significantly between the samples (45.9 vs. 50.6 points, p<.001).

Of the prisoners, 18 (15.9%) reported having committed homicide. When they alone were compared with the population sample, no significant difference in the prevalence (7.5% vs. 11.1%) or level (mean TAS-20 score 45.9 vs. 46.8) of alexithymia was found. In a logistic regression analysis with confounders, being a convict confessing to homicide was not associated with alexithymia.

Male prisoners are more alexithymic than men in general population. There are, however, differences between different types of crimes. Those who confessed to homicide were, surprisingly, not more alexithymic than controls. Studies with larger samples are needed.

S25.02

Familial transmission of alexithymia

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Alexithymia represents a risk factor for psychiatric and psychosomatic disorders and is associated with a less favourable outcome in various treatments modalities. With prevalence rates up to 30% in subjects seeking psychiatric or psychotherapeutic treatment, there is an urgent need for a better understanding of the psychobiology of alexithymia. Previous studies have described an association between alexithymic traits of mothers and their offspring but did not investigate the fathers contribution. Therefore, psychological mechanisms like the mother-child bonding may exclusively account for the observed association. The aim of the present study was to extent this research strategy to fathers, too.

The familial transmission of alexithymia was assessed in 86 childparents trios. Significant associations between the TAS-20 scores of the children and mothers and children and fathers were found. The results were adjusted for age, gender and education. Factor 1 (difficulties identifying feelings) showed the largest intrafamilial association.

The significant association of both fathers and mothers TAS-20 scores with the TAS-20 scores in the offspring strongly support a familial transmission of alexithymia. As both parents contributed to the TAS-20 score of their offspring, psychological and genetic factors may be responsible for the observed association. Thus, in addition to psychological research of affect development and differentiation the search for genetic mechanism for alexithymia should be started.

References

[1]. Grabe et al. (2006). Alexithymia in Obsessive Compulsive Disorder - Results from a Family Study. Psychother Psychosom 75:312-8
[2]. Grabe et al. (2007). Alexithymia and Outcome in Psychotherapy. Psychother Psychosom (in press)

S25.03

Does alexithymia predict non-response to psychotherapy?

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Background and Aims: Some studies have shown that alexithymic patients respond poorly to pharmacotherapy and that alexithymia may have a negative impact on the naturalistic course of psychiatric illnesses. The view that alexithymic patients are also less responsive to psychotherapy is often described in the literature, but few empirical studies have examined this issue, with inconsistent results.

Methods: We conducted two prospective studies (pre/post/follow-up) with patients with panic disorder and obsessive-compulsive disorder, to evaluate alexithymia as a potential predictor of the outcome of cognitive-behavioral therapy (CBT) including exposure response management. A further aim was to examine the absolute and relative stability of alexithymia.

Results: Regression analyses revealed that alexithymia, as measured with the 20-item Toronto Alexithymia Scale, was related neither to the post-treatment nor to the follow-up outcome. The repeated measures ANOVA showed a significant decrease of alexithymia over time,