

## Workshop of the EUPHA Section on Social Security and Health, Oslo 2004:

### ***A systematic review of studies on sickness absence and disability pension***

**Introduction:** The Swedish Council on Technology Assessment in Health Care has done a systematic and critical review of the scientific literature on sickness absence and disability pension. The aim of the project was to

- Assess the scientific evidence about positive and negative consequences of being sickness absent
- Review the research in sickness absence and disability pension, current knowledge of its causes and on sickness-certification practices of physicians.
- Identify areas where further research is needed.

A broad search for studies was done, using literature databases (Medline, PsychINFO, SSCI), reference lists, and personal contacts. Found publications were judged according to relevance, quality (according to set criteria) and the scientific evidence they provided. Studies addressing the following seven topics were reviewed

- Reasons for sickness absence in general, irrespective of diagnoses
- Sources of sickness absence with back or neck disorders
- Sick leave and psychiatric diagnoses
- Sick leave following stroke, MI, and certain heart procedures
- Consequences of sick leave
- 'Sickness presence'
- Sickness-certification practices of physicians

The following persons conducted the review: Alexanderson K<sup>1</sup>, Allebeck P<sup>1,2</sup>, Hansson T<sup>2</sup>, Hensing G<sup>2</sup>, Jensen I<sup>1</sup>, Mastekaasa A<sup>3</sup>, Norlund A<sup>4</sup>, Perk J<sup>5</sup>, Wahlström R<sup>1</sup>, Vingård E<sup>1</sup>.

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**The aim** of this workshop is to report results from the review and discuss consequences of this for future research and international research cooperation.

**Chairperson:** Professor Mansel Yalward, London

#### **Presentations**

1. **Risk factors for sick leave – a systematic review of general studies.** Arne Mastekaasa, professor, Oslo, Norway
2. **Sick listing and its consequences, sickness presenteeism, and sick listing because of low back and neck/shoulder disorders and pain.** Eva Vingård, professor, Stockholm, Sweden
3. **Towards evidence based knowledge on sickness absence, psychiatric disorders and alcohol problems – a systematic literature review.** Gunnell Hensing, Ass prof, Gothenburg, Sweden.
4. **Studies on return to work after stroke and MI, and on sickness certification practises of physicians.** Kristina Alexanderson, professor, Stockholm, Sweden

#### **1. Risk factors for sick leave – a systematic review of general studies**

**Arne Mastekaasa**, University of Oslo, Department of Sociology and Human Geography, Oslo, Norway. Email: [arne.mastekaasa@sosiologi.uio.no](mailto:arne.mastekaasa@sosiologi.uio.no)

This paper provides a narrative review of the empirical literature on risk factors for sick leave and disability pension. The purpose of the review was: (1) to provide an overview of the field, focussing in particular on the identification of under-researched areas; (2) to evaluate the evidence on the effects of specific risk factors. After scrutinizing more than 600 publications found in bibliographic databases and in reference lists, 188 relevant publications were identified. 97 of these were found to be of sufficient quality with regard to design, response rate, statistical methods, etc.

Not unexpectedly, the importance of working conditions has received the most attention in sick-leave research. Also, the importance of family structure (marriage and children) and lifestyle factors have been studied rather extensively. Some relatively neglected areas are: the causes of demographic differences in sick leave (gender, age, social class), employee attitudes and workplace cultures, and insurance/compensation schemes. Also, there are in general few studies on the causes underlying disability pensioning.

Regarding the family, we found no satisfactory evidence that marital status and children living at home were associated with sickness absence. However, we found limited scientific evidence for an effect of divorce. As for work-related factors, there is some evidence for effects of physically stressful work and work autonomy. There seems to be a correlation in time between unemployment and sickness absence, but there is little on the causes of the association. There was moderate scientific evidence that the amount of sickness absence is influenced by the design of the social insurance system, but insufficient evidence on the magnitude of change required to influence the level of sickness absence.

With regard to disability pension, the number of studies was small. However, we found moderate scientific evidence for the effects of socio-economic status, which could be explained partly by exposures during childhood.

## **2. Sick listing and its consequences, sickness presenteeism, and sick listing because of low back and neck/shoulder disorders and pain.**

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Sick listing is frequently used but its consequences are not very well described. Possible consequences can be measured at different levels; here consequences for the sick-listed person were focused. Sick listing might have both positive and negative effects, for example on disease development, health, work, social life, and life style. Some of these factors are investigated in single studies, but evidence of any consequences are lacking due to few studies.

When a person has an impaired work capacity because of a disease but still works the term sickness presenteeism is used. A problem with this terminology is that it implies that

being at work when not perfectly healthy is an exceptional status. However, most persons with a diagnosed disorder or disease are not sick listed but working. Sickness presenteeism is therefore not a good term to use in a scientific context. Investigations have shown that sickness presenteeism is frequent but no evidence on the consequences for the individual or the work place can be stated.

Sick listing because of low back and neck/shoulder disorders is frequent but the scientific knowledge about causes for sick listing because of these common diagnoses are rare. Few studies exist and most of them are investigating men working in industry. Studies on women, white collar worker, and employees in the public sector are lacking. However, there was a scientific evidence for that the following factors were related to sick listing with these diagnoses: High physical workload, forward bending, working in awkward positions, and low job satisfaction were associated with both short- and long-time sick listing. A specific back or neck diagnosis and earlier sick listing because of that were associated with both short- and long-time sick listing. Self-reported pain and disability were associated with long-term sick listing. Long duration of the present employment reduced the risk of short-time sick listing.

### **3. Towards evidence based knowledge on sickness absence, psychiatric disorders and alcohol problems – a systematic literature review.**

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#### **Background and aim**

The aim of this presentation is to report the results of a review of evidence based knowledge on sickness absence, psychiatric disorders and alcohol problems.

#### **Methods**

A systematic literature review was performed on studies published in international, peer reviewed journals. Literature search was done in Medline, PsycINFO and SSCI. The relevance and quality of the studies was assessed by two independent researchers. An evaluation of evidence was made according to international standards. Quality was assessed regarding study design, drop out, bias, analysis and precision. Four evidence levels were established: strong, moderate, limited, and without evidence. Studies on absenteeism where sickness absence could not be identified as a separate unit were excluded.

#### **Results**

Abstracts on sickness absence, psychiatric disorders and alcohol problems were identified (n=580). Of these 97 studies were assessed as relevant, only 28 were assessed as being of sufficient scientific quality. No evidence was found for increased sickness absence in general among individuals with psychiatric disorder due to contradictory findings in different studies. Sickness absence with a psychiatric diagnosis on the certification was more common among women. No difference was found for sick-leave days. Studies covered work related factors, socioeconomic factors outside work and psychosocial factors in childhood. No evidence was found due to few studies on each factor. Studies

on alcohol consumption were common but only nine had sufficient quality. Four studies showed an association between alcohol diagnoses/problems and increased risk for sickness absence irrespective of certification diagnoses. Due to few studies and limited quality no evidence was reached. No association was found on high alcohol consumption and increased risk for sickness absence.

### **Conclusion**

Selection bias, no or limited reports on drop out, and ill defined sickness absence measures were common methodological limitations. A closer co-operation between sickness absence, psychiatric and alcohol researchers could enhance quality in studies within this area.

### **4. Studies on Return to Work after Stroke and MI; and on Physicians' Sickness-Certification Practice**

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Although many physicians must make decisions concerning sickness certification, few studies have addressed physicians' practices in this area. We found 28 studies of sufficient quality on this, however, they were on very different topics and could thus only provide evidence on the following two, very broad questions:

There is limited evidence that physicians view the work involved with sick leave (eg, medical and insurance issues) to be difficult or problematic.

There is also limited evidence that the sickness certificates written by the physicians are often incomplete, rendering it more difficult for the insurance office to decide on compensation.

In isolated studies (ie, insufficient basis for drawing conclusions) physicians suggest that their overlapping roles as a representative for the patient and a medical consultant for public authorities (eg, the insurance office) is problematic. It is difficult to assess the patient's working capacity, and physicians perceive their knowledge about the insurance system to be inadequate. Scientific evidence on the practice of prescribing sick leave is also deficient in other respects (eg, studies are of poor quality, too few, or show conflicting results), which does not enable one to draw valid conclusions. Likewise, there is insufficient evidence on the criteria used to assess work capacity.

Disorders of the circulatory system are the third most common cause for disability pension. There is limited evidence that most people of working age return to work following stroke, myocardial infarction, or heart surgery. However, no evidence identifies interventions that can shorten the length of a sick-leave spell. The reasons for the relatively long periods of sick leave that are common in Sweden, eg, after myocardial infarction, are not known.