

Workshop Section Social Security & Health
EUPHA 2006

Workshop title: Evaluation of Return-to-work interventions for sickness absentees: alternatives to randomised controlled studies

Track: Occupational Health (including social security and health)

Organiser: EUPHA section on Social Security and Health, prof. Kristina. Alexanderson (PhD), section of Personal Injury Prevention, Karolinska Institutet, Stockholm, Sweden; and Angelique de Rijk (PhD), Department of Health Organisation, Policy and Economics, Faculty of Health Sciences, Maastricht University, Maastricht, The Netherlands.

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Workshop abstract

In addition to primary prevention of sickness absence, more and more attempts are made to reduce sickness absence duration (secondary prevention). There is a large variety of interventions to promote return to work (RTW) of sickness absentees. However, their effectiveness is often questioned. Researchers should be able to demonstrate what is effective and what is not. A Randomized Controlled Trial is regarded as the golden standard for the design of intervention studies but in these types of studies it is often hard to meet all the necessary assumptions and the external validity can be discussed. There are different alternative approaches to evaluate RTW interventions, and such alternatives are the focus of this workshop.

Four alternatives will be presented; First alternative randomization procedures are presented. Adequate randomization for allocating patients in an unbiased manner is essential but often opportunities for this are impaired by legislative and organizational rules. Alternatives are *randomizing the physicians* involved or *quasi-experimental designs*. Secondly, another option is *to use longitudinal datasets and simulate randomization or adjust for the absence of it*, which requires specific statistical tests. Thirdly, interventions can be evaluated at the *the organisational level*. In that case, the implementation requires additional evaluation. Finally, a qualitative approach that takes the perspectives of all stake-holders into account will be presented. Such an approach holds a different definition of the optimal intervention. This is named *responsive evaluation or fourth generation evaluation*.

During the workshop, examples of these four different approaches to evaluation of RTW interventions for sickness absentees will be presented and discussed.

The aim of the workshop is to: present different approaches to evaluate RTW interventions and to discuss the limitations, advantages and applications of the different methods.

Presentations

Randomized controlled trials in return-to-work interventions: three variations by prof. Peter Donceel, Department of Occupational, Environmental and Insurance Medicine, School of Public Health, Katholieke Universiteit Leuven, Belgium.

Causal inference of the effectiveness of a return to work intervention from observational data: the role of selection by Catelijne Joling (PhD), Department of Health Organization, Policy and Economics, Faculty of Health Sciences, Maastricht University, The Netherlands.
Work and Health in the Processing and Engineering Industries by Gunnar Bergström (PhD), The Karolinska Institute, Section of Personal Injury Prevention, Stockholm, Sweden.
Responsive evaluation of an intervention to promote reintegration to work among people on disability pension by Angelique de Rijk, Department of Health Organisation, Policy and Economics, Maastricht University, Maastricht, The Netherlands.

Abstract 1

Abstract title: Randomized controlled trials in return-to-work interventions: three variations

Presenting author: Peter Donceel

Authors: Donceel P, Du Bois M.

Affiliation: Department of Occupational, Environmental and Insurance Medicine, School of Public Health, Katholieke Universiteit Leuven, Belgium

Introduction: An adequate and unbiased randomization procedure is of paramount importance to a randomized controlled trial. However, this is not always easy to realise in field studies. Specific legislative and organizational rules can cause additional restraints. Alternatives are randomizing the physicians involved, quasi-experimental designs or using a strict protocol.

Methods: Three field studies to evaluate the effect of different assessment strategies for the medical advisers in the Belgian sickness insurance were conducted. According to current legislation the medical advisers are solely responsible for the assessment of employees on work incapacity. We tried to apply the principles of a RCT as much as possible.

Results: First, a rehabilitation oriented approach in insurance medicine was compared with traditional assessment. Instead of randomizing the patients, medical advisers were at random selected and trained. Use of rehabilitation oriented measures was registered. The intervention increased the probability of return to work for patients after lumbar disc herniation surgery. In the second study an improved and standardised communication protocol between occupational and social insurance physicians was investigated. All employees belonging to one specific occupational health care service were included in the intervention group. No effects of the protocol were found.

A third study to evaluate an evidence based approach by social insurance doctors for patients on sick leave because of low back pain is currently ongoing. Patients are randomly assigned to one of the study groups. The usual medical adviser of the patient follows either the intervention scheme or the control scheme - in both cases according to a strict protocol.

Conclusions: It is often not feasible to randomize individual subjects - all with their own specific, involved physicians or case managers - to interventions that can be efficiently delivered only by previously well-informed and trained physicians.

Abstract 2

Abstract title: Causal inference of the effectiveness of a return to work intervention from observational data: the role of selection

Presenting author: Catelijne Joling

Authors: Joling C, Groot W

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Introduction: Causal inference of the effects of interventions from observational data is known to be problematic. Yet, within the context of social security and sickness absence, we frequently have to turn to observational studies, because of ethical, legal or financial reasons. The most important problem for causal inference in an observational setting is that the exchangeability between the intervention and the control group is not guaranteed. Appropriate adjustment for confounding due to non-random selection for interventions in an observational context makes causal inference possible, however, under assumptions similar to those in randomized studies. In this study, it is investigated whether and how the selection for an intervention by the occupational physician influences the return to work rate of sickness absentees.

Methods: Analyses were performed using observational data from a major longitudinal survey on work incapacity and return to work in the Netherlands. Selection for the intervention and the resulting return to work rates during the first year of absence were assessed for 2622 sickness absentees.

Results: The results show that selection for an intervention by the occupational physician is mainly driven by the labor market position of the absent worker. With this, occupational physicians are more likely to select sickness absentees with lower chances of return to work. The intervention does not appear to be successful in increasing the probability of return to work for these people.

Conclusions: When the effects of return to work interventions are considered in an observational context, the non-random selection for interventions needs to be adjusted for. Statistical techniques are available that suit this purpose. This way we can clarify the causal effects of return to work interventions and improve intervention strategies.

Abstract 3

Abstract title: Work and Health in the Processing and Engineering Industries

Presenting author: Gunnar Bergström

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Introduction: In a Swedish multi-centre study called Work and Health in the Processing and Engineering Industries, an extensive health and psychosocial intervention has been evaluated. The outcomes have been employee health and productivity which, among other things, included measurement of sick leave. The main objective with this presentation is to give an outline of a comprehensive occupational health intervention programme with focus on rehabilitation and to present some data regarding the implementation process and the results concerning sick leave.

Methods: The study was carried out at four large workplaces, and in one reference group not receiving the intervention, between the years 2000 to 2003 and comprised some 5 000 employees. Four health/focus areas were considered: (a) neck and back pain; (b) cardiovascular diseases; (c) asthma and chronic obstructive pulmonary disease (COPD) and (d) hazardous alcohol consumption. The AHA-method is based on three main steps which are (1) mass screening of employees; (2) feedback of results on individual and group level and (3) intervention. The intervention includes among other things standardised assessment protocols and evidence based rehabilitation. Sick-leave data was gathered both at the individual level and at an aggregated level.

Results: At the first comprehensive screening 42% of the respondents were deemed to be “at risk” of deteriorating health according to pre-defined criteria, and these employees were recommended further examination at the occupational health service. Five percent of the respondents subsequently underwent rehabilitation. Descriptive data suggests some differences in the implementation process between the companies. The outcome on sick leave during the follow-up time indicates an advantageous course on sick leave at three of the four companies compared to the total private sector in Sweden.

Conclusions: The two companies being most compliant to the proposed method also showed the clearest decrease in sick leave.

Abstract 4

Abstract title: Responsive evaluation of an intervention to promote reintegration to work among people on disability pension

Presenting Author: Angelique de Rijk

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Introduction: Many reintegration agencies in The Netherlands try to work more demand-oriented. This is expected to increase client-involvement and intervention effectiveness. A group-training for people on disability pension with mental problems was evaluated. The training consisted of 10 meetings of four hours during five weeks. The training aimed at behavioural change (e.g. improving decision-making skills, increasing insight in one’s qualities). Both from the perspective of the clients and the professionals, we studied how professionals tried to work more demand-oriented and its consequences for reintegration.

Methods: In-depth interviews were held with eight clients (19-50 years; 4 males and 4 females) and eight trainers (28-52 years; three males and five females).

Results: Trainers were not able to increase client-involvement. This is understood as a result of the supply-oriented approach during the intake: the trainers are empathic but eventually they select an intervention for the client. During the training, trainers adopted a very small definition of a demand-oriented approach. Their psychological tools appeared to be successful for those clients who were able to evaluate themselves in psychological terms only. However, these clients become dependent upon the knowledge and skills of the trainers and doubt whether the new insights help them to reintegrate. The trainers experience limited control

over the other clients, who are easily set aside as being “not motivated” and this group feels excluded.

Conclusion: Even though the intervention was intensive, this responsive evaluation which took both groups of stakeholders into account showed that client-involvement was not increased due to the way vocational rehabilitation was organised and the psychological character of the intervention. As a consequence, effects on return to work can be questioned.