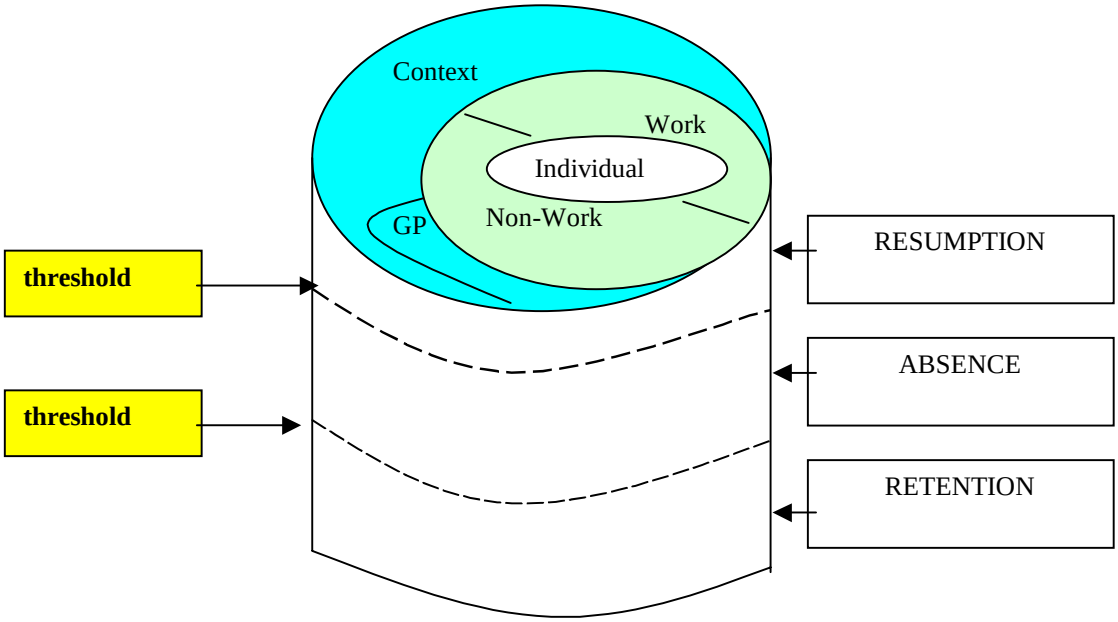
Chapter 6: Discussion and conclusions

The WHO (2001) predicts that by 2020, mental illness will be world-wide the second most important cause for work-disability after heart disease. Studies published by ILO (2000) on mental health policies and programs affecting the workforces of Finland, Germany, Poland, UK and USA showed that the incidence of mental health problems is increasing. It reported that as many as one in 10 workers suffer from depression, anxiety, stress or burnout, with problems leading to unemployment and hospitalisation in some cases.
In this literature review we looked into what is already known about factors that influence the process of reporting absent as well as resuming work after a period of absenteeism. Determinants of work stress, psychological problems and mental health issues are the major area of interest with respect to understanding why workers go over the 'threshold' of reporting absent, and what factors contribute to going over the 'threshold' of actually resuming work again. In this final chapter we will first present an elaboration of the general framework, followed by the presentation of the main findings of each chapter. The findings of each chapter will be shortly discussed with respect to the relevance for the Stress Impact project.

Elaboration of the general framework

As potential determinants of the decision to take these 'thresholds', we have identified areas relating to the workers themselves, to their work and non-work situation as well as to the context. The latter means factors related to the organisation one works for, the professionals (e.g. General Practitioner) one meets in the process of working, reporting sick and being treated or otherwise stimulated to resume work, as well as sectoral and national practices, facilities and regulations concerning sickness absence and disability. With respect to absence and disability one should think of both practices, facilities and regulations for assistance and treatment of both individuals and organisations on sickness absence and disability as well as issues related to insurances on treatment and income. These area's and factors are modelled in Figures 2 to 6. They present a further elaboration of the conceptual framework as presented in the introduction of this literature review.

Figure 2 shows the process of work retention, absence and work resumption in relation to the areas covering factors that will influence the process. These areas are the individual or personal factors, work and non-work factors and context. The General Practitioner (GP) is considered to be one of the context factors that may have strong influence on or through non-work factors.



At the individual or personal level one may consider factors as depicted in Figure 3. Here factors can be discriminated relating to the individuals' health, personality and life style, career, economic situation & skills, quality of life and attitudes, beliefs and aspirations.

1ST SECTION: INDIVIDUAL

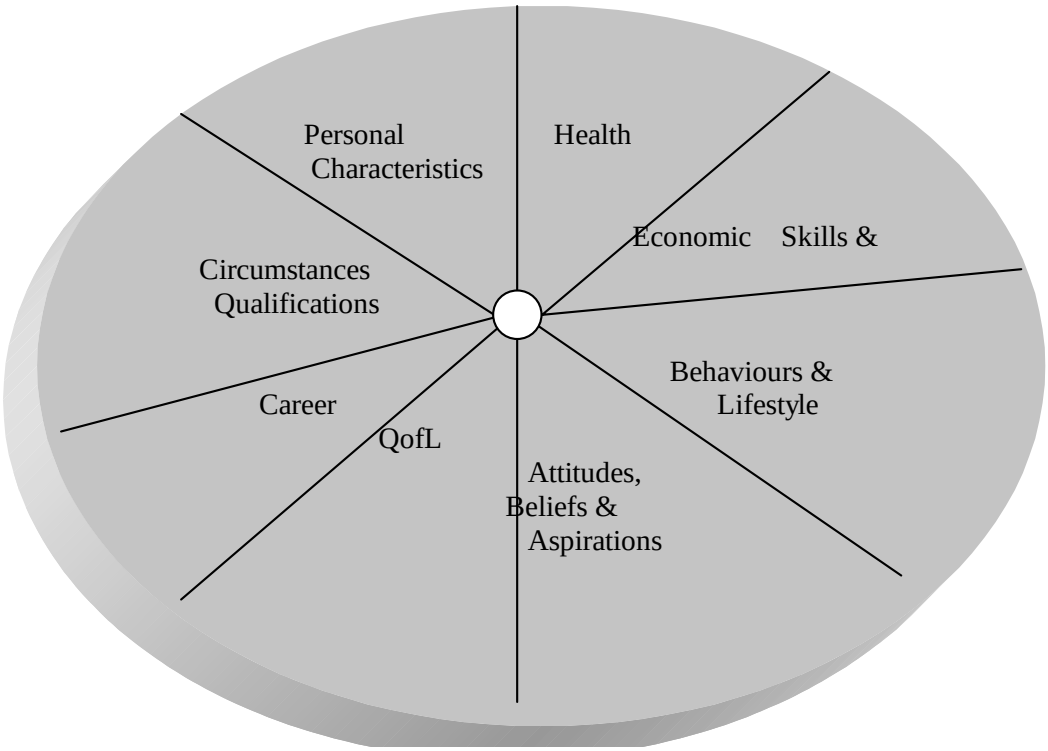


Figure 3: Factors covered by the individual or personal level

Factors relating to work and non-work are indicated in Figure 4. A factor that has recently received a lot of attention is the work-life balance. Particularly this factor may differentiate between personal factors, like gender, or other contextual factors like sector.
Below in Figure 5, the contextual area of the intervening service is modelled, whereas in Figure 6 the contextual area of social policies and the more unofficial and official regulations are modelled.

2ND SECTION: SOCIAL CONTEXT

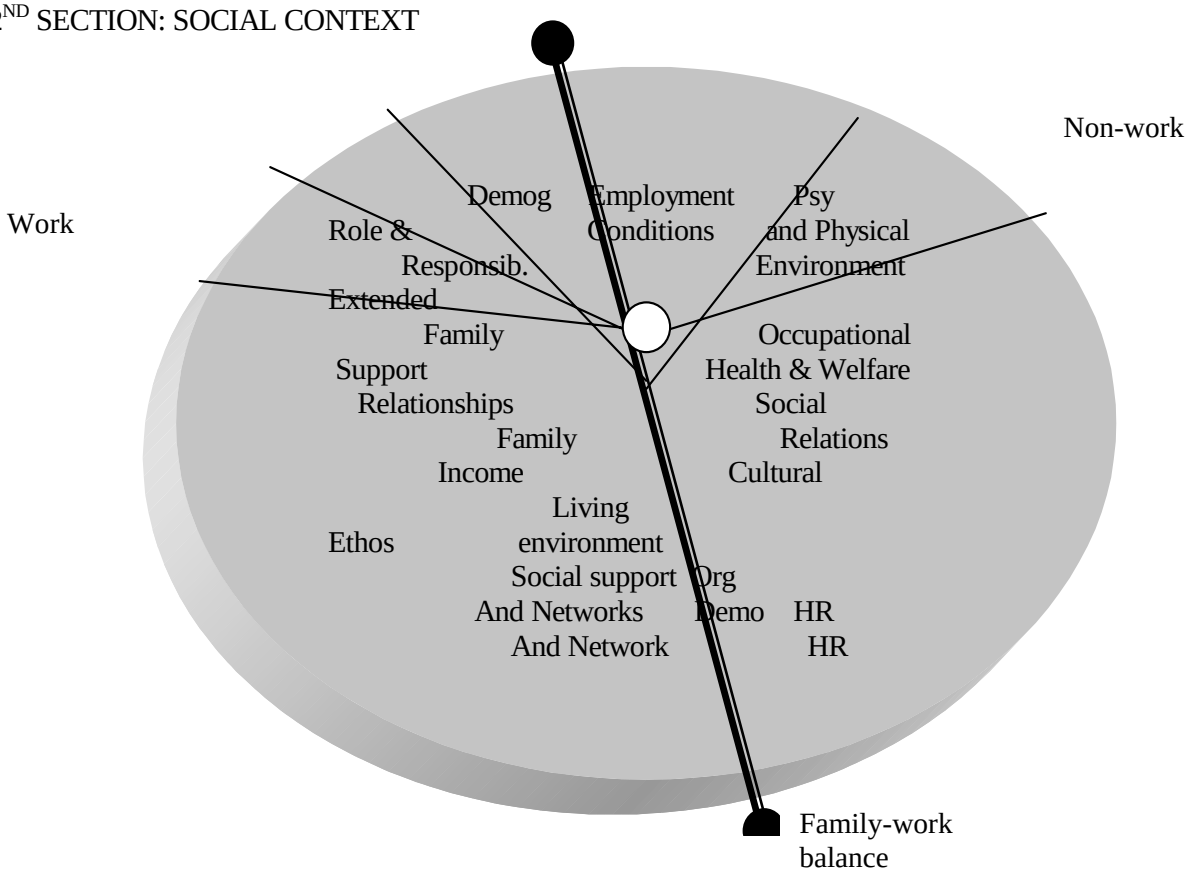


Figure 4: The social context relating to work and non-work factors that may influence work retention, absence and work resumption.

3rd SECTION: intervening service/context

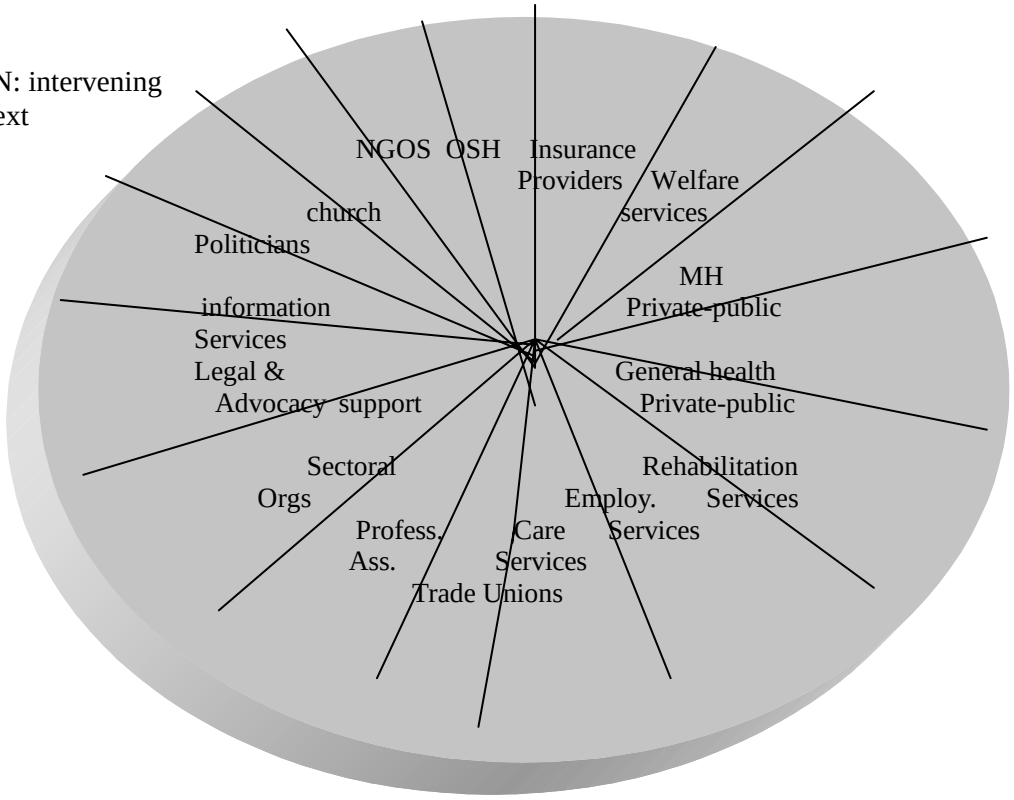


Figure 5: The intervening service context as area of influence to work retention, absence and work resumption.

4rd SECTION: context
ep: economic activity
Inf S = information society (technology)
Social policies (i.e., education)

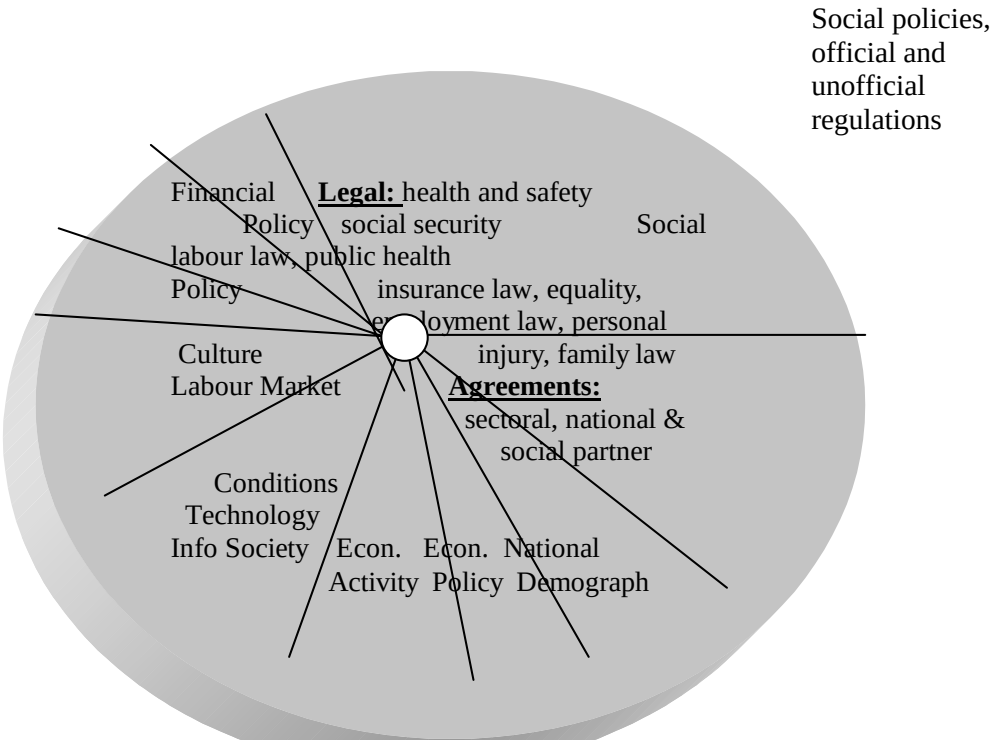


Figure 6. The contextual area relating to social policies and legislation which may influence work retention, absence and work resumption.

The aim of this study, and the modelling of the process of work retention, absence and work resumption, particularly as related to work stress, psychological problems and mental health led us, within the context of the project to focus on:

- Exploring current institutional approaches to stress as reflected in current workplace practice and the practice of health professionals;
- Providing an estimate of the incidence and demographics of stress related long-term absence in six EU Member States;
- Exploring the relationship between professional and institutional approaches to stress;
- Documenting individual perceptions and experiences with respect to being on long-term absence, including perceived threats and risks relating to social trends and structural changes in society;
- Providing insight into how decisions with respect to work resumption are being reached.

Summary of findings from the four literature reviews

Literature reviews were conducted in order to know what information and evidence on the determinants of work retention, absence and work resumption is already available. Following the process four literature reviews were conducted, each of which covered about 10 years, and both psycho(socio-)logical and medical sources

were tapped upon (psychinfo and medline), and often occupational health research was included as well (oshrom). National literature could also have been included if it was considered to be a relevant study, and if it provided useful information. Of course, personal archives of the researchers (e.g. important older studies) were included as well when considered relevant.

The four literature studies differed on the moment or action level in the process. The four reviews concerned were about:

1. determinants of work stress and mental health
2. determinants of absence, and absence indicators (e.g. frequency, duration, percentage)
3. determinants of vocational rehabilitation and work resumption after a period of sickness absence, with special attention to absence as related to work stress, psychological problems and mental health
4. the effectiveness of work stress interventions

determinants of work stress and mental health

The first literature review was performed on the main determinants of occupational stress and mental health outcomes. The concept of (work) stress is somewhat ambiguous, and often seen as an 'umbrella-concept', indicating a field of research where many different topics have been studied, e.g. (work) stressors and their effects on physiological (stress) responses, job satisfaction, well-being, mental disorders, sexual problems, absence, violence, accidents and several kinds of morbidity (e.g. musculoskeletal, cardiovascular) and even mortality (e.g. cardiovascular, cancer, all cause mortality).

The content analysis of the literature indicated revealed that there can be some trends observed in the literature. In the first period of the decade were primarily studies published which tried to identify various kinds of stressors, while the second half of the decade showed studies that were conducted from one of the major theoretical frameworks and were more aimed at explaining the process.

The literature in this domain could be described along three factors. The first one is *development*, showing a change in focus on the individual to an organisational perspective in the stress/strain research over the last decade. The second factor can be labelled *intermediate or 'third' variables*, and is concerned with coping strategies, work and non-work issues is moderating, mediating or more directly influencing the relation between stressors and (negative) outcomes. The third factor can be labelled 'power', and encompasses keywords like managerial power, turnover, absence and compensation against lack of power, expressed in job insecurity, promotion, physical symptoms, external locus of control.

Major research models on determinants on work stress and mental health were the - somewhat older- *transactional model* by Lazarus & Folkman (1984), and the more recent *Job-demand-control model* (DC-model) by Robert Karasek and the *Effort-reward-imbalance model* (ERI-model) by Johannes Siegrist (Karasek, 1979, Karasek and Theorell, 1990; Siegrist, Siegrist & Weber, 1986). The transactional model describes the person and the environment in a dynamic, mutually reciprocal, bi-directional relationship. Two critical processes are important in this dynamic relationship: *cognitive appraisal* and *coping*. The first process is an evaluative process which determines why and to what extend a transaction or series of transactions between the person and the environment are stressful. Coping is the process through which the individual manages the demands of the person-environment relationship that are appraised as threatening (i.e. stressful) and the emotions they generate. The Karasek approach can be seen as a first, and well appreciated response to the transactional model, in the sense that it aims at directing away from the 'blaming the victim' approach that was the result of the way the

transactional model was interpreted in occupational stress research (Karasek, 1979; Karasek and Theorell, 1990). The aim of the DC (later DCS-demand-control-support) model was to identify the main directions of occupational risks for work stress, and reduce the impact of these risks in order to redesign the work place into a less stressful, healthier one. The model postulates that high job demands can be compensated for by being able to exert more control (and be able to use more support) available in the work situation. Redesigning stressful work should therefore be directed not only at reducing demands but at increasing control and support as well.

The Siegrist model, stemming from a social-medical background, embraces the idea of compensatory mechanisms, but aims at improving the understanding of the process as well, by stressing the importance of rewards (both extrinsic and intrinsic) in the work situation as a compensatory mechanism to the demands that are imposed upon the individual. The ERI model additionally introduces 'over-commitment' as a personal characteristic that may moderate this compensatory mechanism.
Very recently, a step was made to integrate and expand on these models with the DISC-model (Demand-Induced Strain Compensation Model; De Jonge & Dormann, 2003 a, b, De Jonge, Dormann & Van Vegchel, 2004). This model not only distinguishes one construct of 'psychological demands', but identifies several types of demands (cognitive, physical and emotional), and postulates a compensatory mechanism between these demands and rather demand-specific resources which enable control of these demands in the work situation.

The research supports the relationship between several working characteristics (such as aspects of demand, control and support) and work stress and mental health outcomes. The best predictor set may, however differ for different health outcomes. Whereas for example, demands may be predictive for emotional exhaustion and fatigue, aspects of control and reward may be more predictive of depression, absence as well as other kinds of health outcomes like cardiovascular mortality. While, it is clear that work stress is a multifaceted concept, there is a lack of agreement about which factors actually determine stress. This is partly caused by the fact that there is still confusion with respect to the concept: input or output.

Gaps seen in the literature are related to:

- the fact that in a lot of studies only self-reported measures were used, which introduces the risk of falling into the 'triviality trap'…. On the other hand more objective measured have been used (e.g. registered absence, mortality). Since some diversity may be expected between cause and type of outcome, this issue does not know an easy solution;
- the need for longitudinal data, since much is crosssectional in nature. For some cause-effect relationships (e.g. work stress risks and <self reported> back pain) a considerable amount of literature is available (see e.g. Hoogendoorn et al,2000), whereas for other outcomes, and partly related to this the issue of the best lag time, much less is available (see also De Lange et al, 2003).
- A lot of risks and moderator or mediator variables of work stress (outcomes) have been studied. The heterogeneity of the instruments and methods used, and models tested, makes it difficult to come to conclusions as to causal effects of work stress risks.

Determinants of sickness absence
The literature review on determinants of absence indicators showed that previous ill health (and absences), chronic disease, low social economic class (SEC) and Low-

grade jobs were strong predictors of absence. Factors strongly related to health outcomes like psychological distress, health behaviours, job dissatisfaction, low justice and bullying were found to be moderate predictors of absence. Work characteristics like high job demands, low control and low social support were found to have a small predictive effect on absence.
Some comments have to be made, however, concerning these finding and the studies on which they were based. Health appears to be an important determinant of sickness absence as such. However, large increases in sickness absence in some countries were probably mainly caused by societal factors like the economic situation, (changes in) compensation policies, attitudes and norms regarding absence. The different absence indicators also tell different things, e.g. absence frequency may tell something about the need for recovery, and is not related to health problems per se. The absence duration is much more related to ill health. Mental disorders tend to have longer absence duration as compared to other diagnoses. An abundant number of interactions has been reported in the studies reviewed. This means that one must be careful in interpreting simple (univariate) predictor effects on sickness absence.

Issues of importance should be considered to be those issues that can be influenced. Economic and labour market figures, as well as influences on the national or sectoral level are hard to influence starting from the organisational or individual level. These influences are, nonetheless, quite important in influencing sickness absence. Factors at the organisational level, such as health promotion, absence policies, and organisational changes as related to climate development, redesign of tasks and management issues are found to be very important in dealing with sickness absence and may be easier to influence.

Vocational rehabilitation and work resumption
Available research indicates that people on stress related leave take twice as many sick days leave than the organisational average.
Most post injury research and research on return to work is concerned with physical rather than psychological injuries. There is very little research on the return to work of people with stress related problems.
It is worth noting that work related stress and other related issues such as harassment, bullying and violence at work are recognised as a concern to workplaces across Europe and the management of these issues is addressed in some way through health and safety and health promotion at work policies and practices. However, these measures are generally only targeting groups ‘at work’, and thus leaving workers absent from work due to these issues vulnerable.
Other aspects of mental health such as anxiety, depression are largely ignored both for workers within the workplace and those absent for these reasons.
This report mainly draws on research from the area of return to work of people with physical disabilities/injuries, due to lack of information from those who are absent, and return to work because of psychological or mental health reasons.
Five main models or concepts in the area of Return to work have been discussed.
- Disability management
- Integrated disability management
- Return to work programmes
- Vocational rehabilitation
- Case management

Focus in this particular chapter was on Reintegration (worksite based interventions), rather than medical rehabilitation (medical interventions) and there is some reference to vocational rehabilitation (interventions undertaken by agencies outside the organisation)

This particular chapter looked at the key elements of successful return to work (RTW) programmes, it looked at the RTW process, the range of return to work option e.g. return to same employer – same job or same employer - different job. It covered return to work strategies – e.g. transitional employment, modified work, looked at the benefits from an organisational perspective of formally offering RTW programmes and explored the range of factors that impact on RTW. This chapter also provided a look at alternative RTW solutions, looked at rehabilitation of people with psychiatric disabilities and identified some of the issues relating to stress related disorders and RTW.

Despite advances in understanding stress, mental health problems and treatment, there is still a significant social stigma surrounding these conditions. Employees may fear the consequences, whether perceived or actual of being identified as suffering from a mental health disorder.
An Australian study looking at stress claimants (Dollard et al, 1999) found that claim workers had used a range of strategies to avoid taking stress leave. In some cases workers used all their annual leave, sick leave and long service leave rather than take stress leave. This suggests that workers don't really want to acknowledge for themselves that they are mentally sick or burned out…. That this is experienced as a quite sensitive issue.
Mental health associations and practitioners working in the area of RTW have proposed and developed actions to return workers to the workplace after stress related illness. These strategies should be targeted at the organisation and the individual as well. As to our knowledge no information is available as to these practices.
The final chapter, however, dealt with the effects of treatment. That situation differs a lot from the situation when one just has to deal with people with (mental) health problems, since these are employees that have been referred for treatment. The general practitioner (GP) nor occupational health physician (OHP) are the main treatment providers as such.

Work stress interventions and their effectiveness
In most reviews on work stress interventions, even the very recent ones (e.g. Semmer, 2003) it is concluded that the majority of the research on the effectiveness of work stress interventions is considering individually directed interventions, which mainly aim at adapting individuals to their environment. Reasons mentioned why this is and has been the case are:

1. Management itself often has the opinion that work stress problems are caused by individuals, particularly their incapacity to cope with the work demands imposed upon them.
2. It is also in their interest not to change the organisation too much on behalf of the problems that resulted.
3. It is much easier to study the effect of individual interventions in an experimentally proper way than when an organisation, or even a part of it is the entity of the intervention study…. Issues like randomization, follow-up of a control group, restricting the intervention only to the experimental group, and avoiding other changes than just the experimental ones are much easier on the level of individuals than on the level of (parts of) the organisation. There even are prominent researchers who consider a randomized clinical trial an invalid testing when it concerns the complex organisational level (e.g. Griffiths, 1999).

When considering the outcomes of the studies presented in this survey, the individually directed studies not only showed more consistent and positive results as compared to the organisational ones, they also were -in general- of better quality. Particularly the latter may be because it has generally been found too difficult to set

up a well controlled randomized intervention study at the organisational level. This is well illustrated for example by the Landsbergis' et al (1999) review that mentions the large number of 'grey' documentation on the effectiveness of organizational interventions. It has also become some sort of an accepted trend to present and publish well documented case studies (e.g. Karasek, 1992; Kompier & Cooper, 1999; Kompier et al, 2000 a & b). By several researchers, this is even seen to be the better way (e.g. Griffiths, 1999; Kompier & Kristensen, 2001). Major arguments for not considering the 'RCT' as the golden standard for these type of interventions clearely have to do with the fact that at the organizational level it is often not a good thing to choose any organisation as a control, since those organisations that in principle do not want such an intervention differ a lot from the experimental one regarding 'motive' (and maybe other issues). With this characteristic, a lot more may be confounding differences between the (groups of) organisations.
On the other hand, many of the reviews promote the merits of organisational interventions, and use the following arguments:

1. to prevent is better than to cure;
2. long term follow-up of stress management at the organisational level in general is not well studied. Therefore it is not convincingly demonstrated that these interventions really are effective;
3. when considering primary prevention, causes can best be tackled at the organisational level. When only done at the individual level you are bound to get more problems because the individual is stigmatised… either the individual is an outcast, and both that person as well as the management have to deal with that. When, however, the work is really stressful, the stronger ones will fail and report absent as well, it will only take more time.
4. so in the end, the approach to reduce risks at their source appears most attractive for all.

The present status still is, however, that little research on the effectiveness of organisational interventions exists, and that it is quite inconclusive.

Also some gaps are identified in the literature on the effectiveness of work stress interventions:

- The follow-up period, which is absent or quite short in many cases. The long(er) term effects of interventions are often unknown.
- Regarding the quality of treatment, this quality often is not specified.
- The actors are often psychologists, or related professions, but not physicians like the GP or OHP. In many countries, however, these physicians play an extremely important role in the rehabilitating process. Their performance should be monitored and used, even implemented somewhere.
- Most studies are on the prevention of deterioration of health complaints or absence. Only few studies looked at the effectiveness of work-resumption protocols.

Conclusions

The literature reviews resulted in some relevant conclusions:

- Stress and mental health problems are a major cause for absence of work, and the number of people suffering is still growing.
- It is clear that regarding work stress risks we have to take the dominant models and instruments into account (Transactional model, DCS-model, ERI-model);

- When studying stress, one should also look at the work/family balance situation, and not solely focus on work related aspects.
- Return to Work (RTW) has thus far not received the attention it deserves.
- Attention should be given to the coordination and communication between health and employment services, and between several professionals involved in the RTW process;
- Attention should also be paid to the quality of the activities, and maybe even 'treatment' by GP, OHP and other professionals, since this is often unknown;
- It seems important to see how specific RTW processes regarding stress and stress related illness is, as compared to those in the case of e.g. musculo-skeletal of other physical health problems, since there is a lot of documentation on the latter and only little on the former.

Literature

De Jonge, J. & Dormann, C. (2003a). The DISC Model: Demand-Induced Strain Compensation mechanisms in job stress. In: M.F. Dollard, A.H. Winefield, & H.R. Winefield (Eds), *Occupational stress in the service professionals*. London: Taylor & Francis (pp 43-74).

De Jonge, J. & Dormann, C. (2003b). Job demands, job resources and psychological well-being: A test of the Demand-Induced Strain Compensation Model (submitted).

De Jonge, J. Dormann, C. & Van Vegchel, N. (2004). Taakeisen, hulpbronnen en psychische gezondheid: Het Demand-Induced Strain Compensation (DISC) Model (Job demands, job resources and mental health). *Gedrag & Organisatie, 17* (in press).

Griffiths, A. (1999). Organizational interventions, facing the limits of the natural science paradigm. *Scandinavian Journal of Work Environment & Health, 25,* 589-596.

Hoogendoorn, W.E., Poppel, M.N.M. van, Bongers, P.M., Koes, B.M., Bouter, L.M. (2000). Systematic review of psychosocial factors at work and private life as risk factors for back pain. *Spine, 25*, 2114-25.

International Labour Organization (ILO; 2000). Mental Health and Work: Impact, Issues and Good Practices. The World Health Organization and International Labour Organization (www.wfmh.org)

Karasek, R.A. (1979). Job demands, job decision latitude, and mental strain: implications for job redesign. *Administrative Science Quarterly*, 24, 285-308.

Karasek, R.A., & Theorell, T., (1990). *Healthy Work*. London, New York: Basic Books.

Lange A.H. de, Taris T.W., Kompier M.A.J., Houtman I.L.D., Bongers P.M. (2003). 'The *Very* Best of the Millennium' : Longitudinal research and the Demand-Control -(Support) Model. *Journal of Occupational Health Psychology*, *8*(4):282-305.

Lazarus, R.S. & Folkman, S. (1984). *Stress, appraisal, coping*. New York: Springer Publishing Company.

Semmer, N.K. (2003). Job stress interventions and organization of work. In J.C. Quick & L.E. Tetrick, (Eds.), *Handbook of occupational health psychology*. Washington: American Psychological Association.

Siegrist, J., Siegrist, K. & Weber, I. (1986). Sociological concepts in the aetiology of chronic disease: the case of ischaemic heart disease. *Social Science and Medicine*, *22*, 247-253.

WHO: The World Health Report (2001), Mental health: New understanding, New hope. WHO 2002.