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Women's perceived work environment after stress-related rehabilitation: Experiences from the ReDO project

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Abstract

Purpose: The study aimed to investigate a) if women's perceptions of their work environment changed during a 16-week rehabilitation period and at a 12-month follow-up; b) whether such changes were related to outcomes in terms of return to work, well-being and valued occupations.

Methods: Eighty-four gainfully employed women on sick-leave due to stress-related disorders responded to instruments assessing perceptions of the work environment, well-being (self-esteem, self-mastery, quality of life, perceived stress, self-rated health) and perceived occupational value. Data about return to work were collected from registers. Non-parametric statistics were used.

Results: The increase in the women's ratings of their work environment was non-significant between baseline and completed rehabilitation but was statistically significant between baseline and the 12-month follow-up. No relationships were found between changes in perceptions of the work environment and outcomes after the rehabilitation. At the follow-up, however, there were associations between perceived work environment changes in a positive direction and return to work; improved self-esteem, self-mastery, quality of life, perceived occupational value and self-rated health; and reduced stress.

Conclusion: It seems important to consider the work environment in rehabilitation for stress-related problems, and a follow-up appears warranted to detect changes and associations not visible immediately after rehabilitation.

Implications for Rehabilitation

Work environment

- Perceptions of the work environment seem important for return to work, although other factors are likely to contribute as well.
- Perceptions of the work environment are associated with several aspects of well-being.
- When developing rehabilitation interventions, a focus on the clients' perceptions of their work environment seems vital.

Key words: Stress-related disorders, work rehabilitation, self-esteem, quality of life, self-rated health.

Introduction

The most common diagnoses for sick leave in Sweden have for a long time been associated with the occurrence of stress-related symptoms [1,2]. Illness due to stress-related disorders increased during the 1990s and thereafter decreased slightly. Current statistics show, however, that the rate of sick leave for women has increased again since 2010 [2]. Women remain on sick leave to a considerably greater extent than men and the highest rates of absence due to sick leave have been found among female employees in the health and social services, and in sales and education work [3,4]. A Swedish study of stress-related disorders and psychosocial strain at work showed that the psychological demands at work have increased, especially among those employed (mostly women) in the county council health authorities [1]. In Sweden the employers are responsible for taking necessary measures at the working place to support employees who need rehabilitation, while the Social Insurance Offices are responsible for supervising and coordinating all rehabilitation contributions from the employer, the health care and/or other involved actors [5].

In rehabilitation as well as for staying healthy, the work environment has been found to be of importance. Ekberg [6] pointed out the importance of considering the physical as well as the social environment in prevention programmes. Moreover, support from employers and superiors has been found important for staying healthy [7], as well as for avoiding absence due to illness and facilitating return to work after sick leave [8-10]. The opposite, poor support and bad relations with work managers and colleagues, tends to lead to increased stress [11]. In another study, where the intervention group received support to identify perceived problems in their work environment and find solutions accordingly, the intervention group returned to work to a higher extent than the control group [12]. The impact on health by factors such as support, demands and decision latitude at work was described in the early 1990s in the Demand – Control model, and support, a sense of control and manageable

demands were found to be health-promoting [13]. The importance of control and demands at work has also been emphasized by Siegrist [14]. His Effort – Reward Imbalance Model links control to being rewarded when one is exerting oneself at work. Siegrist maintained that individuals who have a great need for control put more effort into their jobs than those without such needs. If the worker puts in a great effort and is not rewarded as expected, then this can lead to emotional distress and uncertainty of his or her worker status [14]. Another source of high levels of perceived stress and sick leave and a low level of influence at work is uncertainty owing to a not clearly defined organization at the workplace [15]. This might be the case for women working in health care, where reorganisations have been more common [1].

Research has shown that women have a special situation in Sweden as well as in other western countries [16-18]. Despite the fact that most of them are gainfully employed, they often have the main responsibility for the domestic tasks and child care at home [18] and spend more time on family and household tasks than men do [16,19]. Furthermore, women's tasks are more diffusely distributed between childcare, domestic duties and paid work [16,20] and research has identified a relationship between the complexity of women's everyday life and their subjective health [21]. Both Nordenmark [18] and Gjerdingen and co-workers [16], regarding the issue of dual work load, maintained that multiple roles (e.g. being a mother and having the main responsibility for domestic duties while also being gainfully employed) can have a positive effect on health and well-being, but might also be stressful. Difficulties in combining domestic duties, care of children and paid work have been shown to increase the risk for sick leave [17,22].

Many women of a working age have multiple roles at work and at home, and thus a woman's whole situation, not only paid work, needs to be considered in rehabilitation back to work. This was the incentive for developing a work rehabilitation programme, "Redesigning Daily Occupations" (ReDO) in order to meet the needs of women who had stress-related disorders. The ReDO programme was based on the research by Erlandsson and Eklund [20, 21,23,24] and the Life-style Redesign concept [25] and aimed at raising women's awareness of their daily occupations in terms of what they do, how they do it and how they perceive it [26]. In the ReDO context "daily occupations" denote all tasks that are performed during a day, such as working, taking care of oneself and the family, cooking, buying food, and engaging in pastimes.

While in the programme, the participants received support to identify and to be aware of, for example, hassles and interruptions in their daily occupations, their ambitions and demands as well as demands from others. The programme was found effective compared to care as usual (CAU) with respect to return to work 12 months after completed rehabilitation [27] and the ReDO group was more satisfied with their rehabilitation than the CAU group [28]. The latter study showed, however, that there was no difference between the groups regarding outcomes in terms of well-being factors. Nor was there a difference regarding valued occupations [29]. This indicates that further analyses regarding well-being and valued occupations in the ReDO project may be based on the two samples together.

As indicated earlier, people's work environment might be important for their possibilities to return to work, which is the major primary outcome in rehabilitation contexts. Other, secondary, outcomes of relevance for work rehabilitation include well-being factors such as self-mastery. This was demonstrated in studies of the situation of working women where

mastering life as a whole was found to be important for remaining in working life [30] and for returning to work after a period of sick leave [10]. Other qualitative studies have confirmed that self-mastery, and also self-image [31,32], are highly relevant factors in work rehabilitation. Previous research has also indicated quality of life as an important well-being outcome of work rehabilitation for persons with stress-related disorders [33,34]. Besides well-being, another secondary outcome of relevance, particularly when addressing people's whole occupational situation and not only paid work, is the way everyday occupations are perceived and valued [21]. As mentioned before, the work environment is important for success in work rehabilitation [8-10,12], but to our knowledge no one has investigated the relation between perception of work environment and all of the factors addressed here – return to work, well-being and perceptions of everyday occupations.

The aim of this study was thus to investigate the perceptions of the work environment among the women participating in the ReDO project, while treating the ReDO and the CAU groups as one sample. Furthermore, the aim was to investigate whether these perceptions were related to outcomes as assessed after completed rehabilitation and at a 12-month follow-up. The research questions were:

- How did the women's perceptions of their work environment change from time for start of 16 weeks of rehabilitation to completion of the rehabilitation and the 12-month follow-up?
- How were changes in perceptions of the work environment from start to completed rehabilitation, and from start to the follow-up, related to return to work and secondary outcomes in terms of well-being and valued occupations?

Methods

Design

The current study was part of a larger quasi-experimental, longitudinal study with four measurement points. Before entering the ReDO programme (I) the women were asked to, in a certain order, complete questionnaires about socio-demographic factors, as well as different instruments targeting well-being and everyday occupations. When the programme was finished (II) and at follow-ups at 6 months (III) and at 12 months (IV) after completion of the programme, the women were again asked to complete the questionnaires and instruments, in the same order. The CAU group completed the instruments at corresponding points in time. The project was carried out between 2007 and 2010. For the purpose of this study, which employed a long-term perspective, the data from the WEIS-SR at measurements I, II and IV were used.

Subjects

Eligible for participation in the ReDO programme were women who were gainfully employed and working full time or part time but currently on sick leave due to stress-related disorders. Other inclusion criteria were an age of 18-65 years and being able to speak and read Swedish. The women were selected by the local Social Insurance Office (SIO), in line with its responsibility for the supervision and coordination of work rehabilitation. Forty-two women entered the ReDO programme. The same inclusion criteria were employed to select matched comparisons (CAU) from the SIO registers. Matching criteria were age (+/- five years), time on sick leave, exact diagnosis, family situation and education level. Information about the study participants is presented in Table 1.

Insert table 1 about here

The women's occupations were classified according to the International Standard Classification of Occupations (ISCO) [36]. The most frequent were the health professions, health associated professionals and sales workers.

Four women dropped out after the first session of ReDO programme, two of which thought participation in the programme would take too much effort and time. The other two gave no reason. At the 12-month follow-up one more woman had dropped out, declining further participation, which made thirty-seven participants at that follow-up. For another five women it was not relevant to assess their work environment at measurement point IV since they, at that time, were not gainfully employed. That made 42/38/32 ReDO women completing the WEIS-SR at measurement points I, II, and IV respectively. For similar reasons there was also some dropout in the CAU group, and the number of participants on the corresponding measurement occasions was 42/40/34. There were no differences, neither in the ReDO group or the CAU group, between those who completed the 12-month follow-up and the dropouts regarding age, education level or baseline data regarding sick leave, working hours, months on previous sick leave, having had previous work rehabilitation and perceptions of the work environment ($p>0.05$).

The rehabilitation methods

The ReDO programme started with half-day meetings twice a week for ten weeks, led by two occupational therapists. This period consisted of a theoretical part, which was group-based with individual support. The focus was on the women's everyday occupations; identifying how they spent their days and how they wanted it to be; becoming aware of hassles and

interruptions, but also stimulating occupations; dealing with perceived demands, from themselves and others; and concentrating on doing just one thing at a time. During the group sessions the participants shared their problems and experiences and discussed practical solutions. The participants got assignments to do at home, such as identifying a hassle and finding ways of reducing or removing it. The theoretical part was followed by a six-week period of practical training, consisting of work training, generally at the participants' ordinary work places. During this practical period, the number of working hours per week and other demands were individually adjusted and planned between the participant, her employer, the ReDO group leaders and the SIO. The minimum intervention in the CAU group was sick leave combined with regular follow-up visits with the SIO officer and, in some cases, the employer. About half of the CAU women also received some additional rehabilitation, such as Cognitive Behavior Therapy, mindfulness training or physiotherapy.

Instruments

The work environment

The women's perceptions of their work environment were investigated by the Work Environment Impact Scale – Self Rating (WEIS-SR). It is a self-administered instrument based on the Model of Human Occupation [37] and has, according to initial studies, been found to have good psychometric properties in terms of content validity, internal consistency and test-retest reliability [38]. The WEIS-SR, still under development, consists of 15 items. Initially it had a response scale with four alternatives. However, due to ceiling effects on some items we used a response scale with five alternatives for the present study, where 1 signifies the worst situation and 5 the best. Examples of items are “I work well together with my colleagues”, “I have the necessary, well-functioning tools/equipment I need for my work”,

and “My communication with my superiors is good”. As suggested in the literature [39], when a revised version is used, internal consistency was investigated on the present sample. The Cronbach’s alpha values obtained at measurements I, II, and IV were 0.87, 0.91, and 0.91. Change scores for the WEIS-SR were calculated by subtracting the rating on occasion I from that on occasion IV.

The primary outcome – return to work

Data regarding return to work were obtained from the Social Insurance Office. Return to work was estimated as the percentage of previous working hours. A woman who prior to sick leave had worked 40 hours per week and at the follow-up worked 30 hours per week had thus returned to work at 75%.

Secondary outcomes – well-being and perceptions of everyday occupations

The well-being variables studied were self-esteem, self-mastery, quality of life, self-rated health and perceived stress. They represent a spectrum of well-being variables, from largely self-related factors (self-esteem, self-mastery) to phenomena that depend considerably on the environment (quality of life, perceived stress) and supplemented with a health indicator (self-rated health). To prove the reliability of these instruments, Cronbach’s alpha values based on data used for this study are presented.

Self-esteem was assessed by the Rosenberg Self-esteem Scale [40]. It consists of ten items, and the present study used yes/no response alternatives, as proposed by Oliver and associates [41]. The total score indicates a balance between positive and negative self-esteem, ranging from -1 (negative) to 1 (positive). The scale has good psychometric properties, in terms of

internal consistency, a verified one-factor structure and expected correlations with scales assessing depression, anxiety and stress [42]. The Cronbach's alpha obtained was 0.79.

Self-mastery was assessed by Pearlín's mastery scale. The American original scale [43], together with the Swedish version used for the present study [44,45], have been found to be psychometrically sound. It contains seven items that are rated on a four-point response scale, from *strongly disagree* (=1) to *strongly agree* (=4). A higher score indicates a higher level of self-mastery. Rasch analysis of the Swedish version [44] indicated that the construct behind item number six, addressing mastery of what will happen in the future, deviated from that behind the other items. Item number six was thus analysed separately in the current study and termed as belief in future self-mastery, while a summed index of the other six items was noted as overall self-mastery. In the current study the Cronbach's alpha value was 0.85.

The *quality of life* instrument used was the Manchester Short Assessment of Quality of Life [46]. Eleven items addressing satisfaction with different life domains (such as housing, work, family and health) are rated on a seven-point Likert-type scale where 1 = the negative extreme and 7 = the positive extreme. The satisfaction ratings are summarized to form a quality of life score. The Swedish version, found to have satisfactory properties in terms of internal consistency and construct validity [47], was used. The Cronbach's alpha value was 0.82.

Self-rated health was assessed by means of the first item of the MOS SF-36 [48]. That item is regarded a trustworthy estimate of self-rated health [49] and the wording is "In general, how would you say your health is?". A five-alternative response scale is used, where a score of one represents best possible health.

Perceived stress was estimated by the Perceived Stress Scale (PSS), devised by Cohen [50]. It has 14 items and uses a five-point response scale from 0 (never) to 4 (very often). The items ask about how often a certain event has happened in the past month (such as being upset about unexpected events, not feeling in control of important things, thinking about things you have to do) and a higher score indicates more stress. The Swedish version has shown good internal consistency and construct validity [51] and was used for the present study, showing a Cronbach's alpha of 0.86.

Perceptions of everyday occupations were operationalized as the degree to which clients perceive themselves as having valued occupations. This was estimated by the Occupational Value assessment with predefined items (OVal-pd) [52,53]. The latter is a self-report instrument containing 18 items, describing three separate aspects of perceived occupational value; concrete, symbolic and self-reward value [54]. Examples of items are: "The last month I have done things; ...where I was satisfied with the result because it was good or beautiful" (concrete value); "... where I felt I could be myself" (symbolic value); "... because it was a true pleasure" (self-rewarding value). The respondent states how frequently he or she has perceived the different aspects of occupational value during the past month by choosing one of four ordered response alternatives; not at all (1) to very often (4). A higher score indicates more frequent occupational value experiences. The instrument has shown good psychometric properties according to both classical test theory [52] and item-response theory [53]. The Cronbach's alpha value based on the data from this study was 0.90.

Procedures

All data were collected by licensed occupational therapists, who were trained in the instruments used, and who had not participated in the rehabilitation.

The study complied with stipulations in the Swedish act designating the Ethical Review of Research Involving Humans [55], and the principle of informed consent was applied.

Approval was given by the Regional Ethical Review Board in Lund (cases no 922/2004 and 149/2007).

Data analyses

Descriptive statistics were used for analysing participant characteristics and for calculating mean values and ranges of the clients' ratings of the WEIS-SR. Non-parametric statistics were used when the data were based on ordinal scales, in accordance with Altman [56]. The Wilcoxon signed ranks test was used to calculate whether the participants' responses to the WEIS-SR had changed during the rehabilitation period or at the 12-month follow-up. In case all items had not been completed, imputation with the individual's mean was made if 75% or more of the items had been answered. This resulted in 73 valid cases in the analyses investigating change from baseline to completion of the rehabilitation and 63 cases in the analyses of change at the 12-month follow-up. Spearman's rank correlation was used to investigate the relation between change on WEIS-SR and outcomes in terms of return to work, well-being and perceived occupational value at the 12-month follow-up.

The SPSS version 20.0 was used in all analyses and the level of significance was set to $p < 0.05$.

Results

The participants' perceptions of their work environment

The participants' median rating (min – max) of their work environment, according to the summed WEIS-SR, was 57 (23 – 75) out of the maximum 75 points at the time for entering the rehabilitation. After 16 weeks of rehabilitation the median rating was 60 (15 – 75) and at the 12-month follow-up it was 62 (35 – 75). The change that occurred from start to completion of the rehabilitation was not statistically significant ($Z=-1.95$; $p=0.051$), whereas that between baseline and the follow-up was ($Z=-4.42$; $p<0.001$).

Outcomes at the 12-month follow-up

The women's working time as percentage of normal working hours are presented in Table 2, as is their degree of sick leave. As shown there, there was a gradual increase in degree of working time and a corresponding decrease in sick leave.

Insert table 2 about here

Data regarding the secondary outcomes at the 12-month follow-up are presented in Table 3, which also shows correlations with changes in perceptions of the work environment, commented on below.

Insert table 3 about here

Relationships between changes in perceptions of the work environment and outcomes

The median change (min – max) on the WEIS-SR from baseline to completed rehabilitation was 2 (-37 – 34). There was no association between WEIS-SR change and any of the outcomes. All correlations were lower than 0.22 and the p-values ranged between 0.093 and 0.954. The corresponding change score from measurement I to IV was 5 (-18 – 26). A greater change was statistically significantly associated with a higher degree of work participation at the follow-up ($r_s=0.266$; $p=0.035$). As shown in Table 3, there were also statistically significant associations between WEIS-SR change and all of the studied well-being variables, namely self-esteem, overall mastery, belief in future self-mastery, quality of life, self-rated health and perceived stress. Regarding perceived occupational value, WEIS-SR change was related to the total occupational value score and to concrete and self-reward value. No statistically significant association with symbolic value was found.

Discussion

The participants' initial ratings of their work environment corresponded to 71% of the possible maximum score. They indicated slightly higher levels after completion of the rehabilitation, just below statistical significance, but they rated their work environment at a particularly high level at the 12-month follow-up. This indicates that, after having completed their rehabilitation, the participants viewed their work environment increasingly positively. The importance of the work environment for returning to work is well-known [8-10,12], and the present study could support these facts. Secondary outcomes have been studied more rarely in relation to the work environment, and this study contributed with new knowledge showing that a positive change in the participants' perceptions of the work environment was associated with better long-term outcomes in terms of both well-being and perceptions of everyday occupations. However, the study does not show whether perceptions of the work

environment were an agent in improving well-being and perceptions of everyday occupations or it was the other way around. Moreover, other factors may have influenced both the women's perceptions of their work environment and the outcomes. Plausible agents in this respect are the rehabilitation interventions. All participants got some kind of rehabilitation and support, since this is the employer's and the SIO's responsibility in Sweden. Furthermore, improved mood could have influenced the targeted outcomes. In fact, a related study showed that both anxiety and depression decreased over time, in the ReDO group as well as in the CAU group (57). Clients in rehabilitation have also been shown to experience a change process that includes gaining control over everyday occupations, an altered self-image [31,32], increased self-esteem and control of one's life satisfaction [58]. The latter study indicated the necessity of a change process for successful return to work. The result of the change process in terms of person-related changes might in turn influence the perception of the work environment. Several studies [31,32,58-60] point out the complexity of rehabilitation, emphasizing that several factors influence the outcome. The present study did not aim at identifying causal mechanisms, but merely identified a relationship between improved perception of the work environment and increased return to work, well-being and occupational value.

This study did not address differences between the ReDO group and the CAU group, but a related study showed that improved perceptions of the work environment were evident in both groups, as indicated by medium effect sizes (0.54 in the ReDO group and 0.75 in the CAU group) from baseline to the 12-month follow-up [61]. The perceptions of the worker role remained largely the same, however, further underlining that perceptions of the work environment might be a feasible avenue when preparing women for return to work. The perceptions of the work environment are thus an important target in rehabilitation for people

with stress-related disorders and indicate that interventions that specifically target participants' perceptions of their work environment are needed. This is indeed a challenge, especially since work rehabilitation is most often applied when people are on sick leave and separated from their workplaces.

The fact that there was no relationship between changes in perceptions of the work environment and outcomes immediately after completed work rehabilitation underscores the importance of making long-term follow-ups before any safe conclusions regarding relationships can be made. Also longer follow-ups, over 2 – 3 years, would be warranted.

Methodological considerations

The sample varied according to age, professions and level of education. Most of the participants worked in health and social services, and in sales and education work. These are the sectors where, according to the Swedish Social Insurance Agency [2, 3], the employees have the highest sickness absence in Sweden, which means that the sample can be seen as representative of women on sick leave in Sweden. On the other hand, the sample was small, which limits the possibilities for making generalisations.

We analysed two sub-samples together in this study, and the ReDO women got a more intense rehabilitation than the average woman in the CAU group, although some of these had structured rehabilitation as well. However, for the purpose of this study, which was not about studying intervention outcomes but about the women's perceptions of the work environment in their ordinary workplaces, we found it relevant to treat the participants as one sample. That also reduced the risk of type-II errors.

The data collection was performed by licensed occupational therapists other than those being group leaders, which should be seen as an advantage because the participants knew that any less socially desirable answers would not influence their continued rehabilitation.

Focusing on the measure of the work environment, the WEIS-SR, which is still under development, the fact that changes over time were detected indicates that it might serve as an important outcome measure in work rehabilitation contexts.

Conclusions

The participants rated their work environment at a rather high level on the initial measurement occasion. Their ratings increased somewhat after completion of the rehabilitation, but particularly at the follow-up. A consistent pattern of relationships was found between the WEIS-SR change scores and both return to work and secondary outcomes such as well-being and perceived occupational value at the follow-up. These findings add to previous knowledge by demonstrating that not only return to work, but also the studied secondary outcomes, were related to changed perceptions of the work environment. Although several factors may have been involved in accomplishing the outcomes, the result indicates a need for a focus on perceptions of the work environment when developing rehabilitation interventions. The study also suggests that the WEIS-SR may serve as a useful instrument in evaluating such interventions. Drawing upon the finding that the perceptions of the work environment were related with long-term secondary outcome factors as well-being and perceived value in everyday occupations, preventive strategies for maintaining and improving the work environment seem important in order to prevent ill health and sick leave. The study sample was quite small, however, and the findings must be seen as preliminary. Further research is

needed regarding the relationship between perceived work environment and return to work among women but also in mixed groups.

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Declaration of interest

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References

1. National Board of Health and Welfare. Folkhälsorapport 2009. Psykosociala påfrestningar och stressrelaterade besvär. [Public health report 2009. Psychosocial strain and stress-related problems.]. Chapter 6 pp. 181–199 (in Swedish). 2009. [cited 2013 April 8]; Available from: http://www.socialstyrelsen.se/publikationer2009/2009-126-71/Documents/6_Psykosociala.pdf
2. Swedish Social Insurance Agency. (2013). Social Insurance in figures 2013. [cited 2013 July 24]; Available from: https://www.forsakringskassan.se/wps/wcm/connect/49584364-d0d8-46ad-a982-e1f915b30870/sfis_2013_e.pdf?MOD=AJPERES
3. Swedish Social Insurance Agency. Sjukfrånvaron i Sverige – på väg mot europeiska nivåer? Socialförsäkringsrapport 2009:10. (In Swedish) [Sickness absence in Sweden – towards European levels? Social Insurance Report.]. 2009. [cited 2010 May 21]; Available from: http://www.forsakringskassan.se/irj/go/km/docs/fk_publishing/Dokument/Rapporter/socialforsakringsrapporter/socialforsakringsrapport_2009_10.pdf
4. Swedish Social Insurance Agency. Sjukskrivning i olika yrken under 2000-talet. Antal ersatta sjukskrivningsdagar per anställd 2002-2010. Sjukförsäkringsrapport 2012:14 (In Swedish). [Sickness absence in different occupations during the 2000s. Number of days with sick leave compensation per employee. Social Insurance Report]. 2012. [cited 2013 July 26]; Available from: http://www.forsakringskassan.se/wps/wcm/connect/f9dc7218-70f8-4879-8513-3dc365b6c76a/socialforsakringsrapport_2012_14.pdf?MOD=AJPERES

5. SFS 2010:110 Socialförsäkringsbalk. [Social Insurance Law.] (In Swedish). [Internet]. Stockholm: Swedish Government. [cited 2014 Febr 14]; Available from: <http://rkrattssdb.gov.se/SFSdoc/10/100110.PDF>
6. Ekberg K. Workplace changes in successful rehabilitation. *J Occup Rehabil* 1995;5(4): 253-69.
7. Oxenstierna G, Ferrie J, Hyde M, Westerlund H, Theorell T. Dual source support and control at work in relation to poor health. *Scand J Public Health* 2005; 33:455-63.
8. Ekberg K, Wildhagen I. Long-term sickness absence due to musculoskeletal disorders: the necessary intervention of work conditions. *Scand J Rehabil Med* 1996;28:39-47.
9. Hansen Falkdal A, Edlund C, Dahlgren L. Experiences within the process of sick leave. *Scand J Occup Ther* 2006;13:170-82.
10. Holmgren K, Dahlin Ivanoff S. Women on sickness absence – views of possibilities and obstacles for returning to work. A focus group study. *Disab Rehabil* 2004;26(4):213-22.
11. MacDermid JC, Geldart S, Williams RM, Westmorland M, Lin C-YA, Shannon H. Work organization and health: a qualitative study of the perceptions of workers. *Work* 2008;30:241-54
12. Karlson B, Jönsson P, Pålsson B, Åbjörnsson G, Malmberg B, Larsson B, et al. Return to work after a workplace-oriented intervention for patients on sick-leave for burnout – a prospective controlled study. *BMC Public Health* 2010;2(10):301:[about 10 pp.]. <http://www.ncbi.nlm.nih.gov/pubmed/20515510>. Accessed 2010 Nov 19
13. Karasek R, Theorell T. Healthy work. Stress, productivity, and the reconstruction of working life. New York: Basic books, 1990.
14. Siegrist J. Adverse health effects of high-effort/low reward conditions. *J Occup Health Psychol* 1996;1(1):27-41.

15. Holmgren K, Dahlin-Ivanoff S, Björkelund C, Hensing G. The prevalence of work-related stress, and its association with self-perceived health and sick-leave, in a population of employed Swedish women. *BMC Public Health* 2009;2(9):73[about 10pp.]. <http://www.biomedcentral.com/content/pdf/1471-2458-9-73.pdf> Accessed 2012 Aug 03
16. Gjerdingen D, McGovern P, Bekker M, Lundberg U, Willemssen T. Women's work roles and their impact on health, well-being, and career: Comparisons between the United States, Sweden, and the Netherlands. *Women Health* 2000;31(4):1-20.
17. Jansen NWH, Kant IJ, van Amelsvoort LGPM, Kristensen TS, Swaen GMH, Nijhuis FJN. Work-family conflict as a risk factor for sickness absence. *Occup Environ Med* 2006;63:488-94.
18. Nordenmark M. Multiple social roles – a resource or a burden: Is it possible for men and women to combine paid work with family life in a satisfactory way? *Gender, work and organization*. 2002;9(2):125-45.
19. Statistics Sweden. *Tid för vardagsliv. Kvinnors och mäns tidsanvändning 1990/1991 och 2000/01.* [Time for daily living. Women's and men's time use 1990/91 and 2000/01.] (In Swedish). Stockholm: Statistiska centralbyrån [Statistics Sweden], 2003.
20. Erlandsson L-K, Eklund M. Describing patterns of daily occupations: A methodological study comparing data from four different methods. *Scand J Occup Ther* 2001;8:31-9.
21. Erlandsson L-K, Eklund M. Levels of complexity in patterns of daily occupations: Relationship to women's well-being. *J Occup Science* 2006;13(1):27-36.
22. Sandmark H. Job mismatching, unequal opportunities and long-term sickness absence in female white-collar workers in Sweden. *Scand J Public Health* 2009;37:43-9.

23. Erlandsson L-K, Eklund M. Women's experiences of hassles and uplifts in their everyday patterns of occupations. *Occup Ther Int* 2003;10:95-114.
24. Erlandsson L-K, Eklund M. The relationships of hassles and uplifts to experience of health in working women. *Women Health* 2004;38(4):19-37.
25. Mandel DR, Jackson JM, Zemke R, Nelson L, Clark FA. *Lifestyle Redesign. Implementing the Well Elderly Program*. Bethesda [MD]: American Occupational Therapy Association, 1999.
26. Erlandsson L-K. The Redesigning Daily Occupations (ReDO) Program: Supporting Women with Stress-Related Disorders to Return to Work - Knowledge Base, Structure, and Content. *Occup Ther Ment Health* 2013;29(1):85-101.
27. Eklund M, Erlandsson L-K. Return to work outcomes of the Redesigning Daily Occupations (ReDO) program for women with stress-related disorders-A comparative study. *Women Health* 2011;51(7):676-92.
28. Eklund M, Erlandsson LK. Quality of life and client satisfaction as outcomes of the Redesigning Daily Occupations (ReDO) programme for women with stress-related disorders: A comparative study. *Work* 2013;early online
<http://www.ncbi.nlm.nih.gov/pubmed/23324689>. Accessed 2013 Aug 08
29. Eklund M, Erlandsson L K. Women's perceptions of everyday occupations: outcomes of the Redesigning Daily Occupations (ReDO) programme. *Scandinavian Journal of Occupational Therapy*, 1-9. doi: 10.3109/11038128.2014.922611.
30. Sandmark H. Work and family: associations with long-term sick-listing in Swedish women – a case control study. *BMC Public Health* 2007;7:287:about 9 pp.
<http://www.biomedcentral.com/content/pdf/1471-2458-7-287.pdf>. Accessed 2010 Jan

31. Eriksson T, Karlström E, Jonsson H, Tham K. An exploratory study of the rehabilitation process of people with stress-related disorders. *Scand J Occup Ther* 2010;17:29-39.
32. Åhrberg Y, Landstad BJ, Bergroth A, Ekholm J. Desire, longing and vanity: Emotions behind successful return to work for women on long-term sick leave. *Work* 2010; 37:167-77.
33. van der Feltz-Cornelis CM, Hoedeman R, de Jong FJ, Meeuwissen JA, Drewes HW, van der Laan NC, et al. Faster return to work after psychiatric consultation for sicklisted employees with common mental disorders compared to care as usual. A randomized clinical trial. *Neuropsychiatr Dis Treat*. 2010;6:375-85.
34. Nystuen P, Hagen KB. Solution-focused intervention for sick listed employees with psychological problems or muscle skeletal pain: a randomised controlled trial [ISRCTN39140363]. *BMC Public Health*. 2006;6:69.
<http://www.ncbi.nlm.nih.gov/pubmed/16542443> Accessed 2014 March 9
35. World Health Organisation (WHO). [Internet]. ICD-10. International Statistical Classification of Diseases and Related Health Problems. 10th revision. Version for 2007. [cited 2010 January 28]; Available from:
<http://apps.who.int/classifications/apps/icd/icd10online/>
36. International Labour Organization (ILO). [Internet]. International Standard Classification of Occupations (ISCO). 2008. [cited 2010 June 9]. Available from:
<http://www.ilo.org/public/english/bureau/stat/isco/index.htm>
37. Kielhofner G. Model of Human Occupation. Theory and application. 4th ed. Baltimore: Lippincott Williams & Wilkins; 2008.

38. Wästberg BA, Haglund L, Eklund M. The Work Environment Impact Scale-Self-Rating (WEIS-SR) evaluated in primary health care in Sweden. *Work* 2012;42:447-57.
39. Streiner DL, Norman GR. Health measurement scales. A practical guide to their development and use. 4th ed. Oxford: Oxford University Press; 2008.
40. Rosenberg M. Society and the adolescent self image. Princeton, NJ: Princeton University Press; 1965.
41. Oliver J, Huxley P, Bridges K, Mohamad H. Quality of life and mental health services. London: Routledge; 1996.
42. Sinclair S J, Blais MA, Gansler DA, Sandberg E, Bistis K, LoCicero A. Psychometric properties of the Rosenberg Self-Esteem Scale: overall and across demographic groups living within the United States. *Eval Health Prof*;2010:33(1), 56-80.
43. Pearlin LI, Menaghan EG, Lieberman MA, Mullan JT. The stress process. *J Health Soc Behav*;1981:22: 337-56.
44. Eklund M, Erlandsson LK, Hagell P. Psychometric properties of a Swedish version of the Pearlin Mastery Scale in people with mental illness and healthy people. *Nord J Psych* 2012;66(6):380-8.
45. Eklund M, Bäckström M, Tuveesson H. Psychometric properties and factor structure of the Swedish version of the Perceived Stress Scale. *Nord J Psych* 2014;early online:about 6 pp. <http://www.ncbi.nlm.nih.gov/pubmed/24460116> Accessed 2014 March 9
46. Priebe S, Huxley P, Knight S, Evans S. Application and results of the Manchester Short Assessment of Quality of Life (MANSA). *Int J Soc Psychiatry* 1999; 45(1): 7-12.

47. Björkman T, Svensson B. Quality of life in people with severe mental illness. Reliability and validity of the Manchester Short Assessment of Quality of Life (MANSA). *Nord J Psychiatry* 2005;59(4): 302-6.
48. Ware JE Jr, Sherbourne CD. The MOS 36-item short-form health survey (SF-36). I. Conceptual framework and item selection. *Med Care* 1992;30(6): 473-83.
49. Bowling A. Just one question: If one question works, why ask several? *J Epidemiol Community Health* 2005;59(5):342-5.
50. Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. *J Health Soc Behav* 1983;24(4): 385-96.
51. Eskin M, Parr D. Introducing a Swedish version of an instrument measuring mental stress. Reports from the Department of Psychology, No. 813. Stockholm: Stockholm University; 1996.
52. Eklund M, Erlandsson LK, Persson D. Occupational value among individuals with long-term mental illness. *Can J Occup Ther* 2003;70(5):276-84.
53. Eklund M, Erlandsson LK, Persson D, Hagell P. Rasch analysis of an instrument for measuring occupational value: Implications for theory and practice. *Scand J Occup Ther* 2009;16(2):118-28.
54. Persson D, Erlandsson L-K, Eklund, Iwarsson S. Value dimensions, meaning, and complexity in human occupation – A tentative structure for analysis. *Scand J Occup Ther* 2001;8:7-18.
55. SFS (2003:460). Lag om etikprövning av forskning som avser människor. [The Act Concerning the Ethical Review of Research Involving Humans.] (In Swedish). Stockholm: Riksdagen, 2003.
56. Altman DG. Practical statistics for medical research. London: Chapman & Hall; 1991.

57. Eklund M. Anxiety, depression and stress among women in work rehabilitation for stress-related disorders – The Redesigning Daily Occupations (ReDO) project. *Int J Ment Health*; in press.
58. Wastberg BA, Erlandsson L-K, Eklund M. Client perceptions of a work rehabilitation programme for women: the Redesigning Daily Occupations (ReDO) project. *Scand J Occup Ther* 2013;20(2):118-26.
59. Briand C, Durand MJ, St-Arnaud L, Corbière M. Work and mental health: Learning from return-to-work rehabilitation programs designed for workers with musculoskeletal disorders. *Int J Law Psych* 2007;30:444-57.
60. Landstad B, Hedlund M, Wendelborg C, Brataas H. Long-term sick workers experience of professional support for re-integration back to work. *Work* 2009;32:39-48.
61. Eklund M, Wastberg BA, Erlandsson LK. Work outcomes and their predictors in the Redesigning Daily Occupations (ReDO) rehabilitation programme for women with stress-related disorders. *Aust Occup Ther J* 2013;60(2):85-92.

Table 1. Characteristics of the participants, $n=84$

<i>Characteristics</i>		<i>Number of participants (if nothing else is indicated)</i>
Age	Median (min-max)	44 (24-62) years
Native country	Sweden/Nordic/other	78/0/6
On sick leave	Yes	84
Sick leave percentage	25/50/75/100 %	4/11/4/59
	Missing data	6
Sick-listed months	Median (min-max)	7 (1.5-104) months
First diagnosis ¹	Depression; F32	42
	Stress/exhaustion; F43	37
	Dorsalgia; M54 ²	5
Civil status	Living alone	26
	Married/cohabiting	58
Children	Yes/no	73/10
	Data missing	1
	Number: median (min – max)	2 (1-7) children
University education	Yes/no	36/45
	Data missing	3

¹Diagnoses according to the ICD-10 [35].

²Some of the participants had dorsalgia as first diagnosis although they also had a stress-related disorder.

Table 2. Average degree of work participation and sick leave at baseline, after 16 weeks of rehabilitation and at the 12-month follow-up.

	<i>Baseline</i>	<i>At 16 weeks</i>	<i>At 12-month</i>
	<i>Mean (SD)</i>	<i>Mean (SD)</i>	<i>follow-up</i>
			<i>Mean (SD)</i>
Work participation ¹	15% (25)	37% (39)	75% (37)
Sick leave	85% (25)	64% (39)	24% (36)

¹Work participation is presented as per cent of working hours before being on sick leave.

Table 3. Median values (min – max) of 12-month follow-up outcomes pertaining to well-being and occupational value and correlations with WEIS-SR change.

<i>Outcomes (possible range)</i>	<i>Median value (min – max)</i>	<i>R_s</i>	<i>P-value</i>
Self-esteem (-1 – 1)	0.8 (-0.60 – 1)	0.350	0.005
Self-mastery, general (4 – 28)	22 (9 – 28)	0.372	0.003
Self-mastery, beliefs in future control (1 – 4)	3 (1 – 4)	0.272	0.031
Quality of life (11 – 77)	57 (31 – 75)	0.316	0.012
Perceived stress ¹ (0 – 48)	27 (7 – 45)	-0.279	0.028
Self-rated health ¹ (1-5)	3 (1 – 5)	-0.340	0.006
Occupational value, total (18 – 72)	49 (23 – 71)	0.309	0.014
Concrete value (6 – 24)	17 (9 – 24)	0.305	0.015
Symbolic value (4 – 16)	11 (6 – 16)	0.149	0.243
Self-reward value (8 – 32)	21 (8 – 31)	0.266	0.035

¹ A lower value indicates lower stress/better health.