J Rehabil Med 2010; 42: 544–552

ORIGINAL REPORT

A QUALITATIVE STUDY OF PERPETUATING FACTORS FOR LONG-TERM SICK LEAVE AND PROMOTING FACTORS FOR RETURN TO WORK: CHRONIC WORK DISABLED PATIENTS IN THEIR OWN WORDS

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Objective: **Chronic work disability generates high financial costs for society and causes personal suffering to patients and their families; however, crucial knowledge about the factors associated with long-term sick leave is still missing. This study provides insight, from the perspective of chronic work disabled patients, into the perpetuating factors for long-term sick leave and promoting factors for return to work.**

Patients and methods: **Five focus group interviews were conducted with 27 patients with different disorders who had been on long-term sickness absence (18 months or more). Qualitative data analysis was performed using a conceptual framework to identify barriers and enablers for return to work.**

Results: **Four main themes of important perpetuating factors for long-term sick leave were identified: health-related obstacles, personal obstacles, social obstacles, and work-related obstacles. Four main themes of important promoting factors for return to work were identified: favourable working conditions, positive personal characteristics of the employee, the influence of the social environment, and the influence of the personal economic situation.**

Conclusion: **Besides sickness, several non-medical factors are recognized barriers for return to work. Factors such as illness perceptions and self-efficacy expectations are reported to be promoting factors for return to work.**

Key words: chronic work disability; long-term sick leave; return to work; sickness absence; perpetuating factors; promoting factors.

J Rehabil Med 2010; 42: 544–552

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Submitted September 23, 2009; accepted January 20, 2010

INTRODUCTION

Long-term sick leave constitutes a major economic and social problem (1). In most European Union (EU) member states the proportion of people who leave work permanently due to long-term sick leave exceeds the proportion of people who are excluded from the workforce for other reasons, and the costs of disability leave are much higher than the costs of unemployment (2, 3). Individual patients on long-term sick leave have a high risk of economic and social deprivation. These patients face considerable obstacles in returning to work (4). Many of them develop a more chronic disability, depression, and undergo a decline in mental health as a result (5, 6). Sufficient evidence suggests that employment is beneficial to health, and that this benefit is lost without paid work (7, 8). A recent study found that re-employment of people who have involuntarily lost their jobs leads to a recapturing of past mental health status (9). Governments in the EU have taken different measures to reduce high disability rates (10). Some of these measures include increasing employers' financial responsibility in this area and setting up collective agreements on the work environment. Although these measures have partially succeeded in reducing disability rates, long-term sick leave remains a substantial problem.

Chronic work disability has been defined as work disability during more than 90 days since the date of injury (11). Long-term sick leave in this study is defined as sick leave during more than 6 weeks according to Dutch legislation (12). In the Netherlands, the occupational physician together with the employer and the employee are responsible for the work rehabilitation of the sick-listed employee during the first 2 years of sick leave. Sick-listed employees can apply for disability benefits after 1.5 years sick leave.

Long-term sick leave and chronic disability are complex issues that are not only determined by disease-specific health problems, but are also influenced by a variety of non-medical factors that may intensify and perpetuate each other and, consequently, the duration of disability (13). Knowledge of the patients' perspective on matters related to their health has proven to be a valuable complement in previous clinical research (14–16). Knowing patients' values and perceptions can help increase self-efficacy and feelings of control over the illness (15). Several studies have shown the importance of patient-centred care (17). It has also been shown that patients prefer to take either an active role or a shared decision-making role (18). In the present study we investigated the perceptions of patients who had been on sick leave for between 18 and 24 months.

 doi: 10.2340/16501977-0544 ISSN 1650-1977

Research on musculoskeletal disorders, the most documented and common medical causes of long-term sickness absence, shows that the longer a person is on sick leave the less likely he or she is to return to work. After 6 months off work, less than 50% of people will return to work, and after 2 years absence, there is a decreased chance of the person returning to work (19). A recent literature review found that, despite the great importance of this issue, most studies focus on predisposing factors for long-term sick leave and less on perpetuating factors among patients on sick leave for at least 6 weeks (12).

Return to work and disability have been studied from various perspectives, e.g. biomedical, psychosocial and economic. Many models of disability and return to work are based on the biopsychosocial model (20), which emphasizes the interaction among medical, psychosocial and system-based factors. The International Classification of Functioning, Disability and Health (ICF) (21) model of disability of the World Health Organization (WHO) is an integrative, biopsychosocial-based model that emphasizes the interaction between the individual and his or her environmental context as an important determinant of disability.

In order to facilitate insight into the complex factors related to work disability, we constructed a model of perpetuating factors for long-term sick leave and promoting factors for return to work, based on the ICF and (fragments) of different models (21–25). Each of the original models addresses concepts related to disability and sickness absence. The choice for these factors was based strictly on its relationship with long-term sick leave. Only the factors that are mentioned in the literature as being directly related to long-term sick leave are included in the model.

The model conceptualizes the possible relationship between factors such as degree of control over the working situation, work motivation, and financial consequences of sick leave, and return to work. The first group of factors are the perpetuating factors of sick leave (26). The second group of factors are the promoting factors for return to work that impede the transition to long-term sick leave or permanent disability. We hypothesize that there is also a third group of factors that could act either as barriers or as promoting factors for return to work, which are based mainly on the individual characteristics of the patient (Fig. 1).

However, because crucial knowledge about the perpetuating factors of work disability and long-term sick leave is still missing, the aim of the present study was to study the perspective of chronic work disabled patients themselves on the perpetuating factors for their long-term sick leave and the promoting factors for their return to work.

METHODS

Design

Focus groups were used to investigate the perceptions of chronic work disabled patients regarding the perpetuating factors associated with their long-term sick leave and the promoting factors for return to work.

Participants

Purposive sampling was employed to recruit chronic work disabled patients from 5 different geographical regions in the Netherlands.

The population was retrieved from the databases of the Dutch Patients Insurance Authority (UWV), which records chronological details of sick-listed patients who meet eligibility requirements for benefits under the *Disability Benefit Act*. Eligible subjects for this study included patients who were sick-listed for at least 18 months and met the eligibility requirements for a disability pension. Sick-listed employees between 18 and 65 years of age *who are unable to work*

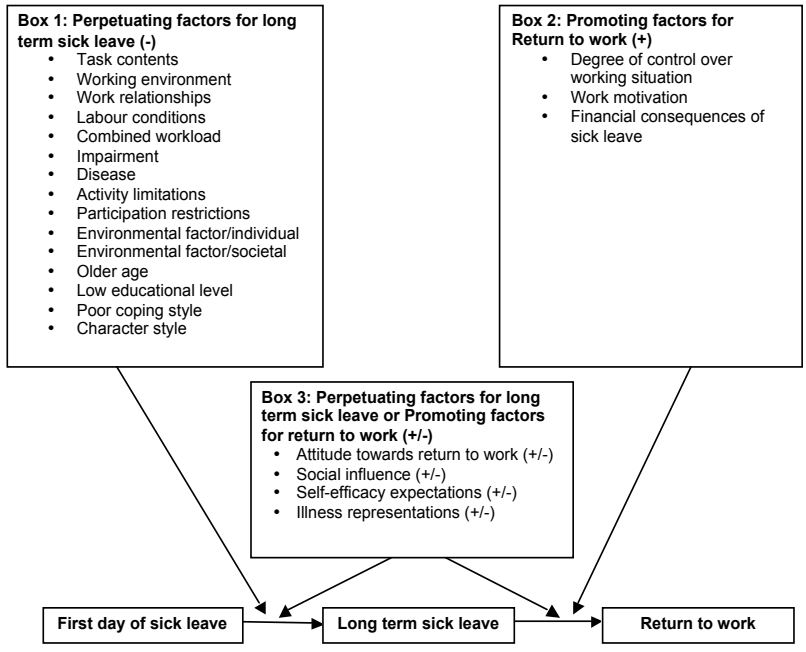

Fig. 1. Model of perpetuating factors for long-term sick leave and promoting factors for return to work. Based on: ICF (21) Van Dijk et al. (22), Leventhal, (23) De Vries et al. (24), Vrijhof, (25), et al.

due to medical reasons can apply for a disability pension after a 1.5 year period of sickness absence. The other eligibility criteria were that patients could speak Dutch and were willing to talk in a group setting about the factors that influenced their sick leave.

This study was presented to the medical ethics committee of the Academic Medical Centre (AMC), University of Amsterdam, which concluded that no *formal approval* for this research was necessary, according to the *Medical Research Involving Human Subjects Act.*

Subject recruitment

Focus groups were held following the standard focus group methodology (28). Eligible subjects were initially approached about focus group participation by post and received written information concerning the aim and procedures of the study from the UWV office. Participants were required to complete a consent form and return it to the researchers. When they agreed to participate, information was sent about the location and time of their assigned focus group. The participants were selected on the basis that the focus groups should capture a full range of views from a large range of sick-listed employees, which could represent the population of sick-listed employees in the Netherlands. To ensure a wide representation, we approached a heterogeneous sample of employees living in all 5 geographical regions in the Netherlands, with different demographics and working settings. This recruitment procedure assured a final sample of great diversity. The participants shared only one characteristic: all of them were sick listed for longer than 18 months. This common characteristic facilitated exchange of information between the group members.

Focus groups

We conducted 5 focus groups, covering a wide representation of views. The focus groups continued until data saturation was achieved; this occurred after 4 focus group interviews, and was confirmed with the fifth focus group. The group interviews were carried out by physicians with extensive experience in interviewing patients who had also been specifically trained to conduct focus groups (PD, HW). Special emphasis was placed on informing the group members that participation was voluntary and anonymous. Patients were assured that the information was to be used only for research purposes and would not have any effect on the outcomes of their disability claims. The focus groups were conducted by 2 moderators using a structured moderator guide developed by the research team.

The focus groups were all conducted by a moderator and an assistant-moderator. The moderator facilitated the discussion, assured that all participants had the opportunity to participate, and encouraged all participants to generate responses based on their own personal experiences and points of view. The assistant-moderator took notes during the focus groups, assessing non-verbal communication. The notes comprised information about non-verbal behaviour, group dynamics and spontaneously emergent topics. The information about non-verbal data showed that the participants, who were strangers to each other, felt free to talk about their experiences. Each focus group lasted approximately 2 h and consisted of semi-structured discussions regarding barriers and facilitators for return to work while on long-term sick leave. The key questions were open-ended and non-directive, and the answers were further explored by the moderator. Following the structured moderator guide, the same topics were raised, in the same order, in each group.

The key questions in the focus groups and their order were as follows: (*i*) What is/are the reason(s) for not returning to work? Is this the only reason, or are there other reasons? (*ii*) What would enable you to return to your own work? What would enable you to perform modified work? (*iii*) Do you think you can return to work in the future? If not, why not?

Data sampling and analysis

The focus groups were both hand-recorded and audio-taped on site, with permission from the participants, and then fully transcribed into verbatim narratives for data analysis. The assistant moderators kept field notes during the interviews, documenting non-verbal data. For the analysis of the data a modified framework approach was used. A thematic framework was constructed based on the conceptual model of perpetuating factors for long-term sick leave and promoting factors for return to work (Fig. 1).

The data were analysed in multiple stages, based on recommendations by Pope's & Mays (29). The transcripts were first compared (by PD) with the audio recordings to ensure accuracy of content and to integrate field note data into the account. The team of researchers discussed their interpretations of the data and reached consensus about a coding scheme. The research team read all 5 transcripts and noted the themes of interest in the text in a process of open coding. The team of researchers met several times to discuss the transcripts and the open codes that were identified by the individual researchers until consensus was reached about the different codes.

A final list of open codes was developed based on the meetings. Evidence that did not seem to fit was sought throughout the analysis, and emerging ideas and themes were modified in response.

The open codes were placed into the theoretical framework and were categorized according to the conceptual model into 2 different groups: perpetuating factors and promoting factors. The following procedure was used to distribute the statements in the correct box of the conceptual model.

A list of definitions of all the factors included in the conceptual model was made to ensure correct use of the terminology. For this purpose, only the definitions used by the authors of the original models were used. A list of all original definitions of the factors is available. The statements were categorized in each specific box according to the original definition (by PD). The categorization of the statements was discussed with the other members of the research team to ensure a correct categorization of statements. The statements were categorized in the box that fitted the best, according to the meaning units of the text. The choice of the boxes was strictly based on the meaning units of the original text. Consensus meetings between all authors led to the rearrangement of the factors into the different groups, which resulted in the categorized list of statements presented in the results section.

RESULTS

Seventy-five patients living in 5 different regions (5 offices × 15 patients, $n = 75$) who met the inclusion criteria received an invitation letter to participate in the study. Of the 75 patients contacted, 48 responded to the recruitment method. Two were unable to participate at the time the focus group took place, 10 indicated that they were not interested or could not participate for other reasons, 4 cancelled, 5 were no-shows; a final total of 27 participants were included in 5 focus groups. The study took place in January–February 2008. Our sample included most categories of chronic work disabled patients regarding socio-demographic characteristics and diagnosis, including cancer, rheumatoid arthritis, repetitive strain injury, severe heart and lung disease, burn-out, and bipolar disorder. The groups included 4–7 patients. The average age was 49 years (range 25–63 years); 14 patients were male. Our sample included employees from different working sectors, employer sizes, socio-economical, and cultural backgrounds, living in all different regions in the country. They were both blue-collar and white-collar, with educational levels ranging from elementary school to university. Non-native employees were also included in the sample. Most participants had still a contract with their employer after the period of 18 months on sick leave. Some of them no longer had an employer or had lost their jobs in the first 2 years of sick leave.

Table I shows socio-demographic characteristics, diagnosis and work-related parameters for the participants at 18 months after the first day of sick leave.

Perpetuating factors for long-term sick leave

There were 4 main themes of important perpetuating factors for long-term sick leave identified by the focus groups: health-related obstacles, personal obstacles, social obstacles, and work-related obstacles.

These themes are described in Table II. Table II describes the categories of perpetuating factors using selected quotations from the focus groups to illustrate the most important issues. The participants' statements were grouped according to the conceptual model.

Health-related obstacles. Disease and impairment were major issues mentioned by participants in the focus groups. Limitations in work due to fatigue were seen as important impairments in preventing patients from performing an essential duty of their job. Other impairments included difficulties performing work due to physical limitations, pain, diminished sight, inability to use the extremities after surgery, decreased memory and concentration, emotional problems, and stress. Patients mentioned specific health problems such as cancer, repetitive strain injury, rheumatic arthritis, asthma, diseases of the eyes, kidney, or lung, occupational diseases, and mental illness (Table II).

Personal obstacles. Older age, low educational level, poor coping style, character style, and combined work load (i.e. the combination of domestic duties and work), were identified as perpetuating factors for long-term sick leave. Having a low educational background interfered with performing new (modified) work. Some personal factors, such as character styles and coping styles, also acted as perpetuating factors for long-term sick leave. Personal problems, such as family separation and financial problems, were mentioned as causes of severe emotional symptoms and sleep disturbances, which perpetuate sick leave. Many patients emphasized that older age prevented them from returning to work or seeking a new job. This is illustrated by the following quotes: "*Who wants to employ a 57-year-old man with sight problems and degenerative disease?*", *"60 years old, that's a barrier"*. Participants had an expectation to not return to work anymore or that no company would be willing to employ them. Some sick-listed employees had very specific ideas about their health condition, prognosis, and the facts involved with their sickness. Some of them emphasized that they were not able to work at all or to get back in their own work or in modified work because of their complaints. Some other patients said that they would never return to work because they found that they were seriously ill and that they had already worked long enough. A number of patients said that their recovery would take a very long time and that they would not be able to return to work. According to the conceptual model, these perpetuating factors, which are inherent to the individual patient, were classified as attitudes toward return to work, self-efficacy expectations and illness representations (Fig. 1, box 3).

Table I. *Characteristics of patients at time of focus group, on average 18 months after the first day of sick leave (maximum 24 months after the first day of sick leave) (*n = *27)*

Characteristics	
Age at time of focus group (mean/range in years)	49 (25–63)
Age at injury/onset disease at baseline (mean/range in years)	47 (23–61)
Sex, male, *n* (%)	14 (52)
Mean times patients attempted return to work, *n*	4
Working part-time on modified work, *n* (%)	9 (33)
Education, *n* (%)	
Lower	12 (44)
High school	6 (22)
College/university	9 (33)
Type of occupation at onset sick leave, *n* (%)	
Manual	8 (40)
Clerical of catering worker	4 (15)
Service	6 (22)
Professional	9 (33)
Diagnosis at onset sick leave, *n* (%)	
Heart and lung disease	1 (4)
Cancer	5 (19)
Musculoskeletal disorder	8 (30)
Mental disorder	7 (26)
Gastrointestinal disorder	1 (4)
Neurological disease	4 (15)
Eye disease	1 (4)
Comorbidity	17 (63)

Social obstacles. Different societal factors, particularly the health insurance system, participation restrictions, and lack of cooperation from medical professionals and counsellors were seen as important barriers impeding return to work. Long-term chronic work disabled patients found that societal factors, such as lack of availability of medical devices and uncertainty about medical treatment, slowed their healing process. Some patients mentioned disease management problems as one of the main barriers to recovery and return to work. Some of them found that they did not receive adequate assistance during their sick leave period and that the health authorities were inefficient and slow, which increased the feelings of anxiety and uncertainty about their future. An employee emphasized this with the statement*: "They expect you to pull yourself out of the swamp*". Besides medical-related factors the participants mentioned inappropriate guidance in the return to work process, and a lack of vocational rehabilitation counselling as important barriers to return to work.

Work-related obstacles. The lack of cooperation from employers, task contents, work relationships, the lack of modified working conditions were seen as important perpetuating factors. The work-related factors mentioned by the patients were problems performing specific tasks because of physical or mental impairments that interfere with or prevent normal achievement in a particular area, for example: *"I can't crawl under or climb above machines any more"; "I want to keep fixing streets, but I can't do it any more with my knees";* or *"If*

Table II. *Perpetuating factors for long-term sick leave generated by the chronic work disabled patients. Categories according to the model of perpetuating factors for long-term sick leave and promoting factors for return to work and the most important statements per category*

Categories	Statements from patients
1. *Task contents* Inability to perform specific work tasks in own work. Problems manipulating work materials and heavy hand tools. Committing errors when performing accurate work	"My own work is too heavy"; "I am no longer able to manipulate a screwdriver or a pair of pincers"; "If I hold a table saw twice then they can carry me away"; "If I make a mistake, somebody else has to check my work again. And that's too expensive"; "I can't pull patients any more after my breast cancer operation"; "My employer had only heavy work at the company, and I am not longer able to perform it".
2. *Work relationships* Poor working relationships with employers. Conflicts between sick-listed employees and their superiors.	"I have been sick for 22 months and my supervisor has never asked me how I am doing"; "It is not just a medical problem, it has turned into a real conflict"; "My boss doesn't want me back because of the financial aspect"; "I was fired because of my illness".
3. *Combined workload* Combining specific work demands and care for own children. Not being able to work the number of hours in a week that the employee normally would work because of caring for own children	"I am happy that I am able to care for my two young children, but I could not cope with caring for seven children with behaviour problems"; "I can only work two days a week, I have to care for my two young children".
4. *Impairment* Functional limitations Preventing sick-listed employees from performing an essential duty of their job.	"I can only work two days a week because of fatigue"; "I can't do my own work because of a double double mastectomy"; "After my operation I could not use my shoulder any more"; "My memory and my concentration have decreased"; "I have pain in my whole body".
5. *Disease*	"My limitations are only of medical origin"; "I just have a great medical problem which makes it impossible for me to do any substantial work"; "There is no treatment for my disease"; "Two years are too short for recovery if you suffer a severe illness".
6. *Participation restrictions* Inability to participate in everyday activities.	"I am not able to drive a car anymore"; "After a workday I don't have energy left to perform other activities at home"; "I am not longer able to play a sport".
7. *Environmental factors/individual* Participation problems of individual origin.	"I can't live in peace, eat or sleep any more. My family is separated since two years; I am getting crazy of all these problems, I can't pay my bills; my private situation is very difficult, I can't change it "; "I can't work because of my private problems, I don't want to live anymore with these problems".
8. *Older age*	"Who wants to employ a 60-year old man?"; "56 years old, in which job could I start?"; "I am too old and too expensive"; "I do understand that they want sick people to get back to work, but at a certain age".
9. *Low educational level*	"Nobody wants to employ me because I still have much to learn"; "My employer doesn't want me without an adequate educational level"; "I can't apply for a job without higher education".
10. *Poor coping style*	"That's just the problem, to accept the own limitations"; "I find it very difficult to perform another kind of work"; "First of all, you have to accept that you are not longer able to perform the same kind of work that you would prefer".
11. *Character style* Individual psychological assets	"I can't start in a new job, I am afraid to be disappointed again"; "I just can't cope with a different job. I can't stand being obliged to do it"; "I can only work for myself; otherwise It would not work at all"; "I can't work under the supervision of somebody else".
12. *Environmental factors/societal*	"There is no modified work"; "Chronic work disabled patients miss personal guidance"; "The authorities don't work together to solve the patients' problems"; "The reintegration process takes too long time"; "I did not get the assistance of a vocational rehabilitation counsellor"; "After 1.5 years there is still uncertainty about my medical treatment and reintegration in work"; "I went to the vocational rehabilitation office, but they sent me away. They said they could do nothing to help me"; "The occupational doctor had no influence in the company"; "I could have returned to work sooner if the relationship between my employer and the occupational health services had been better";"No assistance from physicians"; "My specialist advised me not to do my own work any more, but there is no modified work"; "Carelessness from a physician"; "Too long patient waiting lists"; "Unavailability of a medical device".

somebody else has to correct your work, then that doesn't make progress". Patients mentioned poor working relationships as a perpetuating factor for sick leave.

The patients emphasized this by using statements such as: *"I had no cooperation from my employer"; "I had a work conflict"; "I could have returned to work earlier, and my employer should have sought adapted work for me, but he didn't"*. Many patients expressed their inability to work the same number of hours in a week with statements such as: "*I can only work 2 days a week";* or *"I'm not able to work longer than 4 hours a day"*. Patients also mentioned unavailability of modified work,

Promoting factors for return to work

Four main themes of important promoting factors for return to work were identified by the focus groups: favourable working conditions, positive personal characteristics of the employee, the influence of the social environment, and the influence of the subject's personal economic situation.

Favourable working conditions. The promoting factors mentioned were: having control over the working conditions, especially over the working hours and working tasks and the availability of modified work. An employee underscored this with the following statement*: "Make a group of disabled people do modified work and let someone else keep an eye on them*". The patients on sick leave said that attitude and support from their supervisors during the sick leave period were of great importance for their return to work because of the emotional impact of this support. Support from the employer during the sick leave period was seen as a positive sign, which made employees feel welcomed back to work and could help them to remain involved with their workplace. Patients emphasized that cooperation from the employer and good relationships at work are of crucial importance during the reintegration process with statements such as: *"My boss said: I'm happy that we can make you stay…, and that gives a good feeling"* (Table III).

Positive personal characteristics of the employee. Motivation to work and the coping style of the employee were identified as important success factors in job reintegration. Only some of patients on long-term sick leave said that they had taken the initiative to arrange the conditions to return to work. Some patients were confident of returning to work in spite of their handicaps. One participant said he was sure that he would be able to get (modified) work and was willing to do everything possible to achieve his goal. According to the conceptual model, these promoting factors are inherent to the individual patient: attitude towards return to work, self-efficacy expectations, and illness representations (Fig. 1, box 3).

Influence of the social environment. The participants emphasized the importance of good vocational rehabilitation programmes, counselling, personal guidance and support from health authorities and health professionals (Table I).

Table III. *Promoting factors for return to work proposed by the chronic work disabled patients. Categories according to the model of perpetuating factors for long-term sick leave and promoting factors for return to work and the most important statements per category*

Category	Statements of patients
1. *Degree of control over working situation*	"I can function quite good as long as I can choose my own working times"; "I could work if I would be allowed to organize my own work"; "I need work where I can make my own choices".
2. *Work motivation*	"I just have to seek for another job"; "I went on my own initiative to the vocational rehabilitation office"; "I went to the occupational doctor and I have asked for help, because I had been trying to reintegrate in work for about 2 years without success".
3. *Financial consequences of sick leave*	"I have to work because of financial reasons"; "My income level has decreased, and I don't want that, then I have to go back to work"; "I have to return to work, otherwise my salary will lower".
4. *Labour conditions*	"Give sick-listed employees the possibility to work less hours"; "If you cannot work whole days at your own level, then work so much as you can at a lower level"; "To work half a day at your own tempo", "Work that can be done in less hours".
5. *Task contents*	"Modified work, office work or work as taxi driver"; "Light work where I don't need to think too much"; "Volunteer work that is not too heavy for me"; "Less stressful work"; "Other type of work".
6. *Working environment*	"I want modified work in a quiet environment".
7. *Work relationships*	"To solve the problems with my employer"; "It is fine that I can get back to work by my own employer, because that is safer".
8. *Personal factors: coping style*	"First of all, you have to accept that you are not longer able to perform the same kind of work that you would prefer".
9. *Environmental factor/ societal*	"Modify the sickness absence law"; "Financial aid to start my own company"; "Counselling and education to help me get a new job"; "Job reintegration according my possibilities"; "A mental coach should be available"; "To start earlier with the reintegration process"; "Place together a group of patients with disabilities and make someone supervise them"; "Give financial aid to the employer so that they become willing to re-employ older patients"; "If you feel that you're being helped, then you are going in the right way"; "More understanding for the limitations of chronic work disabled patients"; "To stay involved with your work".

Influence of personal economic situation. This study shows that chronic work disabled people sometimes make the choice to return to work earlier due to financial reasons, such as income reduction or loss of paid work due to disability. (See statements promoting factors; Table I).

DISCUSSION

The results of this study show that, besides sickness, non-medical factors, such as older age, the health insurance system, poor working relationships, poor degree of control over the working situation, lack of modified labour conditions, negative illness perceptions and recovery expectations, are perpetuating factors for long-term sick leave by chronic work disabled patients. Promoting factors for return to work include having influence over the working hours and working tasks, work motivation, financial consequences of sick leave, and a positive attitude and support from the employer.

For analysis of the data we used a modified framework approach, which is a more deductive form of analysis (29). However, analysis of the data was also, in part, inductive. Because a hypothesis had been specified in advance, analysis was partly deductive and was based upon a theoretical model (see Fig. 1). This allowed us to compare the factors mentioned by the patients with factors identified in the literature. We chose this approach because of its transparency, which makes it possible for the analysis and interpretations of the data to be assessed by others.

Studying the patient perspective using focus groups has enabled us to gain a better understanding of the mechanisms behind chronic work disability. The interviews took place in an informal atmosphere and our participants felt free to express themselves and exchange ideas about health issues with other group members who shared the same kind of problems without consequences or compensation. This is consistent with findings from previous studies that show that communication and exploring patients' needs are important aspects of patient-centred care (26). An important finding is that some factors, such as work-related factors, coping style and societal factors, are potentially modifiable, whereas other factors, such as older age and socio-economic status, are not. Coping style seems to be an important perpetuating factor for long-term sick leave. We found that some patients who reported fatigue, stress, and discouragement about employment had not yet accepted their disabled state and had problems dealing with their new situation (see Table I, coping style). Accepting the state of disability is the first step to restore the balance and to succeed in a new work situation. Many participants had not yet reached this balance.

Some factors, such as poor work relationships or inadequate counselling, may cause a patient to prolong his or her sickness absence, possibly by reducing the motivation to return to work. These results correspond with previous studies that show that patients report lack of advice and guidance as barriers to return to work (30) and that not only medical factors are responsible for long-term sick leave (31, 32). The financial consequences of sick leave can act as a promoting factor for return to work in the long term. This is in line with early studies that suggest that a higher sick pay benefit is associated with more cumulative compensated work absence days (33). Analysis of the data shows that the majority of our participants had low expectations of recovery. Previous studies have found that patients' beliefs about their illnesses are important predictors of return to work and functioning (34). In addition, patients' perceptions and beliefs about work and returning to work may be a significant hindrance for actual recovery or return to work status (31, 35).

The present study included patients with all types of diseases. Thus, all health conditions are placed on an equal footing, shifting the focus from aetiology to consequences. This non-disease-specific approach allowed us to investigate the impact of different kinds of disease on functioning. Our sample consisted of a broad range of patients, representing all categories of diagnosis, age, sex, socio-economic or educational backgrounds, and type of employment, and from all geographical regions in the country. Our participants shared as their only common characteristic the fact that they were sick listed for more than 1.5 years. The heterogeneity with respect to location and medical conditions enable us to reach data saturation and makes it possible to determine whether some general themes are consistent across these factors. The heterogeneity of the sample makes it possible to generalize the factors independent of the underlying diseases.

The perpetuating factors mentioned by the participants were not specific to any disease, job characteristic, or demographic characteristic. The chronic work disabled patients mentioned many common groups of perpetuating and promoting factors that they perceived as obstacles or facilitators for return to work. This indicates that chronically ill patients may perceive common perpetuating and promoting factors for long-term sick leave, independent of the clinical diagnosis. These findings imply that the results of the present study may also be applicable to other groups of long-term chronic work disabled patients. This is in accordance with an earlier study that showed that chronically ill patients with different diseases (rheumatoid arthritis, diabetes mellitus and hearing loss) identified many common groups of themes that they perceived to be necessary to cope at work (36). Our results provide important information about facilitators for return to work. Some of the promoting factors we identified (labour conditions, task contents, working environment, work relationships, coping style, and environmental factors/societal) are mentioned in the literature as perpetuating factors for sick leave (see Fig. 1), but not as promoting factors for return to work (see Table III). Research on these factors could be an interesting point for a future study.

In the present study we used a new integrated framework based on the ICF, specifically focused on the perpetuating and promoting factors for long-term sick leave, which due to its simplicity is a valuable research tool to help gain insight into the complexity of factors involved in the maintenance of long-term sick leave. During the analysis we also searched for deviations from the conceptual model. Analysis of the data using the conceptual framework showed that the only

perpetuating factor for long-term sick leave included in the framework that was not mentioned by the sick-listed employees was the working environment. All other factors mentioned by the participants fitted into the framework.

Our study provides valuable information on the barriers and facilitators perceived by patients on long-term sick leave. Firstly, we used an innovative, multi-causal, integrative model to analyse the factors associated with long-term sick leave. This integrated approach from different points of view (medical, psychological, behavioural and societal) allowed us to identify some perpetuating and promoting factors of long-term sick leave that, to our knowledge, have not yet been reported in the literature. The model includes independent variables that have been shown empirically to be associated with long-term sick leave and return to work. Secondly, we highlighted the perceptions of long-term chronic work disabled patients, which give insight into the patients' views. Thirdly, the model is generalizable; it is applicable to a diverse group of patients with different health conditions.

Conclusion and recommendations

A great deal has been published about disability and return to work. However, the process of return to work from long-term sick leave is complex and remains poorly understood. The current study provides an insight into the complex phenomenon of the views of people who are chronic work disabled and who have been off work for longer than 18 months. The results show that factors other than health conditions, such as environmental factors and personal factors, may also be responsible for the maintenance of sick leave. Factors commonly identified as barriers for return to work were older age, the insurance health system and work-related factors. Important promoting factors mentioned by the patients were: having influence over the working hours and working tasks, work motivation, financial consequences for sick leave, and receiving support from the employer during sickness absence.

Chronic disabled patients on long-term sick leave find that the health insurance system, employers and vocational rehabilitation offices do not provide adequate support during their sick leave period. This implies that there is a need for policymakers to develop strategies aimed at achieving an efficient patient-friendly health insurance system.

Training programmes for health professionals should emphasize the promotion of scientific knowledge about the potentially modifiable perpetuating factors for long-term sick leave, in order to enhance the quality of assessment of workability and promote sustained return to work for chronic work disabled patients.

Some of the perpetuating factors we identified are potentially modifiable. This means that there are opportunities to improve the situation of these patients. Health professionals should therefore focus on these potentially modifiable factors, such as perceptions about the illness, coping styles, attitudes towards work, work-related factors, and other environmental factors. Interventions aimed at modifying specific illness beliefs, particularly those related to the duration and consequences of the illness, may improve patient work-related outcomes. The challenge for health professionals is to determine which perpetuating factors are potentially modifiable and to advise on the evidence-based interventions that best fit the needs of the individual patient in order to promote return to work.

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