

A nation-wide pilot project for early rehabilitation of low back pain workers

Ph. Mairiaux^a, D. Delaruelle^b, P. Strauss^c

^a *School of Public Health, University of Liège, Sart Tilman B23, B – 4000 Liège*

^b *MSR-FAMEDI-APRIM, Prevention and Protection Service, Quai aux Pierres de taille, B-1000 Bruxelles*

^c *Belgian Fund for Occupational Diseases (FMP/FBZ), Avenue de l'Astronomie 1, B-1210 Bruxelles*

Abstract

As a result of both a political and a scientific thinking, the Belgian Fund for Occupational Diseases (FOD) has launched, starting March 1st 2005, a pilot project for the nursing staff in the health care sector in order to prevent the transition of low back pain (LBP) to chronicity through a program promoting an early return to work. Target workers are those being off work due to LBP for at least 4 weeks and maximum 3 months. The program involves a standardised multidisciplinary back rehabilitation program on the one hand, and on the other hand an ergonomics intervention in the health care institution. Depending on the context, the workplace intervention may involve an ergonomic analysis with the participation of the sicklisted worker, a larger group-based ergonomics redesign, or temporary change in the worker duty or work time in order to facilitate his/her return to work. The employer gets a financial incentive from the FOD when he agrees to such an intervention. Due to a lack of communication among the target population, this pilot project has had a slow start; the presentation gives a qualitative overview of the first 100 cases having entered the program.

Keywords : rehabilitation ergonomics; health care ergonomics, implementation process, low back pain, return to work

1. Background

The project is the result of both a political and a scientific thinking. Taking as examples the policies having led in Germany, Denmark and France to the recognition of low back pain as an occupational disease, Belgian trade unions have asked the minister of Labour and Employment to revise the situation and to take measures to lessen the burden of chronic low back pain (LBP) among workers. Following that social call for action, the minister asked in 2001 the Belgian Fund for Occupational Diseases (FOD) to revise the scientific data and to make proposals. Drawing from the latest evidence-based guidelines

[1,2,3,4], the FOD has acknowledged that low back pain could be considered as work-related and has proposed to set as a first priority the prevention of the transition of LBP to chronicity through a program promoting an early return to work. This view was considered as sound and promising by the minister and as a consequence the government has decided to fund a pilot project intended for the nursing staff in the health care sector starting March 1st 2005 for a one-year duration. The health care sector was chosen due to the well established exposure to back pain risk factors. In the authorities view, other high risk sectors, like the building industry, should benefit

from the program as soon as the pilot project has proved the program value and feasibility.

2. Program characteristics

The program can be defined as a “return to work” (RTW) program and aims at reducing the proportion of workers suffering from an acute low back pain episode who will remain off work for more than 4 weeks and be at risk of entering the vicious circle of fear of movement behaviours, physical deconditioning, and chronic pain. As shown by Loisel et al. [5] and others [6, 7], the natural prognosis of such workers can be significantly improved when they are invited to take part to a structured RTW program. The design of the Belgian program has thus mostly been based on the Sherbrooke model [5] and on its recent application in the Netherlands by Anema and his colleagues [8]. As a prerequisite to effectiveness, such RTW programs must be multidimensional and this is the case of the pilot project in Belgium which involves two main components, a medical one and an ergonomics one.

2.1. Medical component

A multidisciplinary back rehabilitation program has been recently (August 2004) introduced in the Belgian health insurance system for patients having back pain for more than 4 weeks; the program consists of a maximum of 36 sessions of 2-hr duration given for groups of patients (8 per group). It involves a back school training, physical conditioning, cognitive behavioural pain treatment and also an ergonomic component delivered either by an ergonomist or a physical therapist having been trained in ergonomics. It is the first time that ergonomics is considered as such within the health care system. This back rehabilitation program has been selected to constitute the medical part of the RTW program set up by the FOD. Throughout Belgium, 45 physical medicine departments have accepted to deliver this well defined program under contract with the FOD; that implies that they are ready to welcome the workers enrolled in the pilot project with as aim, not only offering them a good quality care but also promoting their return to work when feasible. Thanks to the FOD support, the workers may take part to the rehabilitation without any personal costs.

2.2. Ergonomics intervention

Within the project, an ergonomics intervention is stimulated in the worker health institution. With the employer agreement, this intervention will be carried out by the ergonomist or the occupational physician of the prevention service having in charge the hospital. Out of the 24 Belgian occupational prevention services, more than 15 collaborate part to the pilot project. Depending on the context, the workplace intervention may involve an ergonomic analysis with the participation of the sicklisted worker, a larger group-based ergonomics redesign, or temporary change in the worker duty or work schedule in order to facilitate his/her return to work. The employer gets a financial incentive (250 €) from the FOD when he agrees to such an intervention.

2.3. Access criteria

The project scope is limited to the nursing staff exposed to back loads in relation to the handling or care of patients in general hospitals, psychiatric hospitals and nursing units for the elderly. Inclusion criteria are being off work due to mechanical low back pain lasting for at least 4 weeks and maximum 3 months, or due to a pain recurrence (of minimum one week and max 3 months) after another 4 weeks (or more) episode in the previous 12 months, or due to back surgery (min 4 weeks, max 3 months).

2.4. Procedures

The nurse suffering from a low back pain episode may wish entering the program either at the general practitioner suggestion, or following a proposal from the advising physician of the health insurance.

In any case, the worker must visit his/her occupational physician (OP) before being admitted in one of the centres offering the rehabilitation program. The OP is in charge of checking the access criteria on behalf of the FOD and to collect at this occasion some data on the worker back pain history. A visit to the OP during the sick leave was until June 2004 forbidden by law; since, a new regulation allows the worker to ask for such an examination. This change opens a new role for the OP in the prevention of disability.

After the visit to the OP, the worker is invited to contact one of the physical medicine centres offering the multidisciplinary rehabilitation. When starting the treatment, the centre is asked by contract to come into contact with the patient OP in order to collect information about his/her working conditions and appreciate with the OP the need for an ergonomic analysis. After a first series

of 18 treatment sessions, the centre must consider what options have to be followed next: returning to work while pursuing the rehabilitation or not, giving additional treatment sessions...Those options have to be discussed with the worker, the OP, and the general practitioner. At the end of the rehabilitation, the centre must send the FOD a final report describing the results obtained and the outcomes in terms of return to work.

Similarly, the OP has a standardised form to fill in when the worker resumes work whatever the nature of the work (temporary part-time, on light duty, ...etc).

2.5. Evaluation process

For every worker included in the project, a set of data is systematically retrieved at the level of the rehabilitation centre on the one hand, and the prevention service on the other hand. The variables collected have been designed to allow a process evaluation of the project two components in order to assess its feasibility in the prospect of its possible extension to other sectors and working populations.

2.6. Public information on the project

Many information, including the scientific basis of the project can be found on the FOD web site : www.fmp-fbz.fgov.be ("prevention dos" or "rugpreventie")

3. Results

This is an ongoing project that was due to last, in its pilot phase, until 28th February 2006.

Due to a lack of communication among the target population, the project has had a slow start: 11 months after its official launch by the public authorities, 100 workers of the health care sector have been admitted to the program. A majority of them have been invited to take part by a specialist in physical medicine working in one of the centre collaborating to the project. This surprisingly low participation rate, and the unexpected path to entry can be ascribed to several factors, some being of a structural nature, others more of the procedural type.

3.1. Structural difficulties

The project is completely innovative in the Belgian context and implies in fact deep changes in the relationships traditionally established, or not, between various health professionals; for

more than 40 years for instance, caring physicians have been encouraged not to come into contact with OP's! Such behaviours cannot be changed in a few months.

As many studies have shown, wrong beliefs about back pain and its treatment are still widespread among patients but also among physicians; altering those beliefs takes time and consistency in the messages delivered.

The new opportunity for the worker to meet his OP is quite recent and still little known among employers and workers. It is thus in fact rarely used by the sick workers.

3.2. Procedural difficulties

The political agenda is quite different from a scientific one. The project was thus launched in March 2005 in a hurry under the pressure from those clever politicians who had supported this evidence-based project but wanted to receive quickly a public appraisal in return. At the time of starting, almost no nurse on the ward floor had heard anything about the project and its aims.

Much energy has been devoted therefore in the first 9 months of the project to inform the hundreds of employers, the hundreds of OP's, and the thousands of nursing personnel concerned by the project. These efforts are beginning to pay off in 2006.

Not so many centres have the multidisciplinary team and the equipment to run the new rehabilitation program created within the health care system. Hence in some regions of Belgium, there is no centre available close to the patient; in some towns there is only one, but it is located inside the hospital where the nurse is working. In such case, some nurses are afraid, for privacy reasons, to participate.

3.3. Quantitative results

Results obtained on only 100 people have to be considered as preliminary. Some trends are worth mentioning: 63 cases are primary subacute pain episodes, 27 are recurrences and 10 followed a surgical procedure. About half of the nurses (n=45) are working either in care units for the elderly or in geriatric wards. More than two-thirds of the participants are working in a Flemish institution. The number of end-treatment reports is still too low to mention the return to work rate even though present figures are encouraging.

Those data will be completed before the Congress by a qualitative interview among the participants. Results will be compared to other published

ergonomics interventions aiming at prevention of chronic low back pain [9, 10].

3.4. Prospects

Political authorities have now accepted that the planned pilot project duration (12 months) was too short to carry out a process and feasibility evaluation. The pilot project will thus be prolonged for 12 months more until February 28 2007. The target population will be extended to the nursing staff in elderly homes and in home care.

Acknowledgements

The support and collaboration of the other members of the project task force, G. Creytens, L. Legrain, F. Milis, O. Poot, is kindly appreciated.

References

- [1] Waddell G., Feder G., McIntosh A. et al. Low back pain evidence review. London : Royal Coll. Gen. Practit., 1996, 35pp
- [2] Derriennic F., Leclerc A., Mairiaux Ph., Meyer J.P., Ozguler A. Lombalgies en milieu professionnel : quels facteurs de risque et quelle prévention ? Collection Expertise collective, Paris : INSERM edit., 2000, 151 p.
- [3] Hagen KB, Hilde G, Jamtvedt G, Winnem MF. The Cochrane review of advice to stay active as a single treatment for low back pain and sciatica. *Spine* 2002, 27: 1736-1741
- [4] van Tulder MW, Becker A, Bekkering T, Breen A et al. - European guidelines for the management of acute nonspecific low back pain in primary care. Working Group 1. COST B 13,2004 (www.backpaineurope.org/web/html/wg1_results.html).
- [5] Loisel P, Abenhaim L, Durand P, Esdaile JM et al. - A population-based, randomized clinical trial on back pain management. *Spine*. 1997 ; 22 (24) : 2911-2918.
- [6] Lindstrom I, Ohlund C, Eek C, Wallin L et al. - The effect of graded activity on patients with subacute low back pain: a randomized prospective clinical study with an operant-conditioning behavioral approach. *Phys Ther*. 1992 ; 72 (4) : 279-290.
- [7] Staal JB, Hlobil H, Twisk JW, Smid T et al. - Graded activity for low back pain in occupational health care: a randomized, controlled trial. *Ann Intern Med*., 140 (2004) 77-84.
- [8] Anema JR - Low back pain, workplace intervention and return-to-work. Amsterdam : Vrije Universiteit, PhD Thesis. 2004 .
- [9] Loisel P, Gosselin L, Durand P. et al. Implementation of a participatory ergonomics program in the rehabilitation of workers suffering from subacute back pain. *Applied Ergonomics* 32 (2001) 53-60.
- [10] Anema JR, Steenstra IA, Urlings IJM. et al. Participatory ergonomics as a return-to-work intervention: a future challenge? *Am J Ind Med* 44 (2003) 273-281.