Effectiveness of a Short Functional Restoration Program for Patients with Chronic Low Back Pain: a cohort study of 193 Patients

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Abstract

Background: Functional restoration programs (FRPs) are integrative programs to improve function in chronic low back pain (cLBP). They are costly and time-consuming. The aim was to assess the effectiveness of a condensed FRP (CFRP) for patients with cLBP in professional activity.

Methods: Longitudinal 3 months study of patients with cLBP in one tertiary care hospital, participating in a CFRP over 4 separate days. The primary outcome was the Oswestry Disability Index (ODI). Secondary outcomes included pain, quality of life (EQ5D), patient acceptable symptom state, presenteeism, absenteeism and psychological distress. Outcomes were compared using paired sample Student's t-test or Chi2 between baseline and last follow-up. Logistic regression was used to identify factors associated with better response (improvement of ODI higher than 12.8).

Results: In all, 193 patients were analysed, mean age 44.6 (standard deviation (SD) 10.4) years, mean cLBP duration 9.0 (SD 8.8) years. A small improvement was observed for ODI (mean difference -5.9, 95% confidence interval: -7.6, -4.1), as well as most other outcomes. Multivariate analysis showed an association between ODI improvement and higher duration of low back pain (odds ratio for 5 years: 1.41 (1.06,1.88)) and lower baseline back strength (Sorensen, odds ratio for 1 minute: 0.54 (0.29,0.99)).

Conclusion: this CFRP showed small effect to improve function, pain and other quality of life, in cLBP. Four-day programs may be an interesting option in cLBP patients still in professional activity for whom a long 1-month FRP is difficultly manageable. Further studies with randomized controlled designs are needed to confirm the benefits.

Introduction

Low back pain (LBP) is a major problem throughout the world: leading cause of years lived with disability in both developed and developing countries and the sixth cause of overall

disease burden (disability-adjusted life-years) [1]. The lifetime prevalence of low back pain is up to 84% [2] with a negative social and psychological impact [3].

LBP has a certain risk of recurrence and can become chronic [4]. Multidisciplinary rehabilitation, also known as functional restoration programs (FRPs), appears to be one of the most effective therapies to improve back pain and decrease disability and long-term work impairment in chronic LBP (cLBP) [4,5] and is recommended by national guidelines [6–8]. Key concepts of these programs are based on a physical component (such as specific exercise modalities) and at least one other element from a biopsychosocial approach (psychological, social, occupational or educational) and are delivered by health professionals from different disciplines [5]. However, time and resources required for full-time FRPs are a limit to their use.

Furthermore, FRPs concern patients with long-term disabling cLBP with a prolonged sick leave and aim to allow patients to get back to work [9]. Such programs are not well adapted for patients still at work, since they require full time participation over several weeks (usually 2-6 weeks), while the number of persons with LBP and still working is very high [10,11]. Targeting patients with cLBP in professional activity may be useful since they are at high risk of work consequences.

Thus, a condensed program of the same type as a full-time FRP may be a more feasible alternative for patients with persistent disability who are still at work. Previous studies have shown that such condensed programs have the potential to improve function, prevent sick leave, improve presenteeism and pain and appear to be well accepted [12–15].

The objective was to assess the effectiveness of a CFRP for patients with cLBP in professional activity.

Patients and Methods

Study design

In this observational cohort study, data were prospectively collected in a single tertiary care center in Paris, France. This department provides pluridisciplinary (physicians and health professionals) services for patients with cLBP in an ambulatory setting [9]. Outcomes were measured at baseline, at the end of the 4-week program and at the 3-month follow-up and the main analysis was based on the latest available data (i.e. 3 months when available, else 1 month).

This study was in the context of usual care. No approval was required as stated by the ethics committee in charge or this study (ethical committee Sud-Est VI, Lyon ,Groupement Hospitalier Est, Bâtiment Pinel, 59 Boulevard Pinel, 69 500 BRON, FRANCE). Consent was obtained for experimentation with human subjects. This study was reported in accordance with the STrengthening the Reporting of OBservational studies in Epidemiology (STROBE) statement (Supplementary material A) [16].

Population

Patients included in the program met the following criteria: nonspecific cLBP (>3 months as defined in the European guidelines for the management of chronic [2]), not currently in prolonged sick leave (more than one week), no current indication for surgery (e.g. pain radiating to a precise and entire leg dermatome with neurologic signs [17], fluent in French, and difficulties to maintain daily physical activity due to LBP despite outpatient care including physiotherapy. Nonspecific LBP was defined as LBP not attributable to a recognizable, known specific pathology (e.g., osteoporosis, structural deformity, infection, tumour, fracture, inflammatory disorder, radicular syndrome, or cauda equina syndrome) [4]. Exclusion criteria were specific LBP and medical contraindication to physical exercise.

Every patient who participated in the CFRP between April 2012 and April 2018 was analysed if the Oswestry Disability Index and lumbar and radicular pain at baseline and at the end of the intervention or 3-month follow-up was available.

Intervention

The CFRP is a complex multidisciplinary intervention proposed as a usual care, according to different national guidelines, where FRP is defined as intervention that combines and coordinates physical, vocational, and behavioral components and is provided by multiple health care professionals with different clinical backgrounds [6–8]. The program takes place in our department of rheumatology in Pitié-Salpêtrière Hospital, 6 hours per day, 1 day a week, for 4 weeks. Patients are included during consultation or hospitalization and are in groups of 6 maximum per CFRP. The CRFP was developed on the basis of therapeutic patient education programs and physical exercises [8,18]. The interdisciplinary team involved and the different components of intervention are detailed in Table 1. A few hours per day are devoted to physical exercises (17% to 67%), led by a physical activity specialist, physiotherapist or yoga teacher which are divided into three periods: warm-up, stretching, and muscle strengthening. Specific exercises adapted to work circumstances (like handling: e.g, lift a weight from the ground) are taught by an occupational therapist. Muscle strengthening is based on isotonic contraction on fitness devices. Patient education is given over on 1 hour per week and focuses on back pain, lumbar ergonomics, cognitive therapy and information on medication. Educational booklets, containing general information about back pain such as possible causes, tips to stay active or treatment, are also given to the patients. Patients were present each day of the program for the same duration (9 am to 4 pm) with a varying duration of lunch break. Although physical activity and exercises were promoted during patient education sessions, no prescription of exercises was made between each session and exercises were not mandatory, or measured.

Data collection

The outcomes were collected prospectively in a paper form. The primary outcome was the Oswestry Disability Index, which gives a subjective percentage score of level of function (disability) on a 0 to 100 scale, 100 being the highest disability state [19]. Secondary outcomes included a visual analogue scale of lumbar pain and radicular pain (0-100 scale), EQ-5D-3L for quality of life [20] converted into a global index score with 1 indicating no restriction of quality of life and -1 the worse quality of life possible [21], patient acceptable symptom state where patients reported their satisfaction on state of symptoms by picking “acceptable” or “non-acceptable” [22]. We also collected the validated World Health Organization Health and Work Performance Questionnaire for presenteeism (reflecting the patient’s overall performance while at work during the past 4 weeks, score from 0 to100, 100 being the highest level of performance) and absenteeism (proportion of hours lost with regards to the hours expected to work per month, score from 0 to100, 100 indicates the higher amount of absenteeism) [23] and the Hospital Anxiety and Depression scale (HAD) with a probable anxiety or depression disorder corresponding to a score >11 [24]. Physical examination assessed Shirado and Sorensen for strength to measure the endurance (in seconds) of the trunk flexor and extensor muscles, Schober test and fingertip-to-floor test for flexibility.

Other variables collected at baseline were age, gender, body mass index, duration of LBP, a measure of stress at work using the Karasek questionnaire (psychological demand, social latitude, social support), professional activity (yes or no) and socio-professional category (high being defined as higher managerial, administrative and professional occupations) [25].

Statistical methods

Before-after comparison used data at last follow-up (3 months follow-up or at the end of intervention if not available) and was performed using paired sample Student’s t-test or Mac

Nemar's Chi2 test on complete data only. Analyses were also conducted separately with data at end of treatment and with at 3 months for sensitivity analysis (Supplementary material B). Mean differences and standardized mean differences were computed. To interpret the standardized mean differences, the following norms were used: small effect (<0.3), moderate effect (0.3-0.8) or large effect (>0.8) [26]. Changes above the minimal clinically important difference were computed for Oswestry (12.8 out of 100), pain (20 out of 100), anxiety and depression scores (both 1.5) [27–29]. Subgroup analysis was performed to compare effectiveness between patients with high level of symptoms at baseline (Oswestry >20/100 and pain > 20/100) versus low level of symptoms.

The normality of each variable was assessed visually and since this condition was met, parametric tests were used. Factors associated with response, defined as an increase in Oswestry Disability Index higher than the minimal clinically important difference, were analysed using Student, Chi2 and multivariate logistic regression. Explanatory variables in the logistic regression model were entered from a set of a priori variable if statistically associated in univariate analysis ($p<0.2$), then selected based on missing data and correlation (Supplementary material C). Variables finally entered in the multivariate model were: duration of low back pain, Sorensen (back strength), baseline anxiety (HAD), baseline patient acceptable symptom state, baseline lumbar pain, socio-professional category, Karasek social support and the multivariate analysis concerned 129 patents with full data (i.e. data at 3 months follow-up or at the end of intervention if not available). P values smaller than 0.05 were considered significant. Analyses were carried out using R version 3.5.1.

Results

Patients

In all, of the 274 patients who followed the program during the evaluation period, 193 patients were analysed since they had follow-up data (85 patients at the end of the

intervention and 108 at 3 months, figure 1). The 85 patients who did not return for the visit at 3 months presented the same characteristics at baseline except for Shirado score which was lower (data not shown).

Baseline characteristics are reported in table 2. Mean age was 44.6 (standard deviation (SD) 10.4) years and 76 (39%) were male, mean LBP duration was 9.0 (SD 8.8) years (median = 5.0 years ; minimum = 8.0 months). The mean body mass index was in overweight values: 26.6 (SD 8.8) kg/m^2. Among the 162 (84%) with a paid work, 78 (48%) were in high socio-professional category, mean psychological demand was high (>21) and mean social support and social latitude were low (<24 and <70 respectively) according to Karasek score. At baseline, mean intensity of lumbar pain was 38.2 (SD 23.4), the mean Oswestry Disability Index was 29.7 (SD 14.0) and symptom state was acceptable for 79 (46%) of patients.

Effectiveness of the CFRP

Comparisons between baseline and last follow-up (i.e. data at 3 months follow-up or at the end of intervention if not available) showed a small improvement in the Oswestry Disability Index (mean difference -5.9, 95%, confidence interval (CI): -4.1, -7.6), as well as lumbar pain, EQ-5D quality of life, patient acceptable symptom state, Shirado and Sorensen, fingertip to floor test, anxiety, depression and absolute presenteeism (Table 3). This improvement was also noted for patients only at one month or 3 months follow-up: Oswestry Disability Index (mean difference -3.9, 95%, CI: -1.2, -5.6 at one month and mean difference -6.8, 95% CI : -4.0, -9.6 at 3 months follow-up), VAS of lumbar pain (mean difference -5.9, 95%, CI: -2.2, -9.6 at one month and mean difference -6.9, 95% CI : -1.7, -10.1 at 3 months follow-up) (Supplementary material B). The change was higher than the minimal clinically important difference for 47 (24%) patients for the Oswestry disability Index, 60 (31%) for lumbar pain, 80 (44%) for anxiety and 68 (38%) for depression. Furthermore, 42 (24%) changed status positively for the patient acceptable symptom state. Standardised mean differences of quantitative variables (figure 2) indicated higher effect for trunk extensor

muscles and Oswestry Disability Index (0.55 and 0.4 respectively). Before-after comparisons based on data only at the end of the intervention (n=85) or at 3 months follow-up (n=108) showed similar results (Supplementary material B). Subgroup analysis showed a significantly higher improvement in patients with higher symptoms at baseline (mean difference -8.3) than those with lower symptoms at baseline (mean difference -3.2), 95%CI -8.8, -1.4.

Variables associated to better response to CFR

Among the 193 participants, 47 (24%) had a clinically significant improvement of their Oswestry Disability Index at last follow-up and were classified as good response. In univariate analyses, a significant association was observed between good response at last follow-up and baseline characteristics: low functional status or high physical impairment (Oswestry Disability Index: p<0001), low back strength (Sorensen: p=0.04), high absolute presenteeism (World Health Organization Health and Work Performance Questionnaire: p=0.01) and substantial anxiety (HAD, p=0.03). Multivariate analysis showed a significant association between good response and high duration of low back pain (odds ratio of 5 years: 1.41 (95% CI: 1.06,1.88)) and low baseline back strength according to Sorensen (odds ratio for 1 minute: 0.54 (95% CI: 0.29,0.99)) (table 4).

Analyses based on data at 3 months follow-up were overall confirmatory (Supplementary material D).

Discussion

This study explored an innovative condensed program applicable to patients with cLBP without sick leave. It constitutes an interesting alternative easy to implement for patients still working for whom a long FRP requires a long work interruption. Currently, FRPs are being used to improve the outcomes of CLBP, however, they are long, time-consuming and costly

[6–8]. The option proposed here is a four-days intervention spread over one month, including both physical activity and behavioral components, which is compatible with maintaining professional activity. In this pilot observational study, we were able to demonstrate that the CFRP led to a statistically significant but not clinically significant improvement in the key outcomes of CLBP which are disability and pain, as well as improvements in most of the other outcomes analyzed including work outcomes, psychological status, strength and flexibility, both at the end of intervention and 3 months follow-up. Furthermore, it appeared that patients with the best response to the CFRP were those with a higher duration of low back pain and a lower baseline back-strength at baseline.

At baseline, the Oswestry Disability Index, pain levels and anxiety and depression level were moderate in this young to middle aged population. These levels of pain and disability were lower than those described in previous studies where the Oswestry score is usually around 40 and pain around between 50 and 80 [9,12–15,30]. This difference in level of symptoms could be explained because patients included in this CFRP had chronic but moderately impactful symptoms and were still at work. Thus, it is logical that the symptom level is lower than in patients starting a full time FRP [9]. Surprisingly, the level of lumbar pain (38.2 (23.4)) at baseline was lower that the level of radicular pain (45.5 (19.9)) (Table 2). This result could be explained by the fact that mean radicular pain was calculated for patients with radicular pain only (i.e. >1).

Comparison between baseline and last follow-up showed a mean difference of 5.9 in the Oswestry Disability Index. This improvement was also noted for patients only at one month (mean difference -3.9) or 3 months follow-up (mean difference -6.8). This significant effect on the Oswestry was of a small magnitude; furthermore only 47 (24%) patients had a clinically relevant improvement of the Oswestry Disability Index. This small effect may be partly explained by the moderate disability at baseline. Subgroup analysis showed a significantly higher improvement in patients with higher symptoms at baseline than those with lower symptoms at baseline. In other studies, larger effects were often observed

(between 10 and 20 points) [14,30]. However, this effect was observed after an intensive functional therapy with cognitive treatment or after a 2 week program, including cognitive behavioral training, physical activities and education, which was much more time-consuming and resource-consuming than our CRFP [14,30].

Change in levels of pain was of small amplitude (mean difference -7.7/100). This change was lower than previous study [13,30]. which could be explained by a less intensive cognitive treatment for pain and lower baseline level of pain.

In this study, CFRP was effective to improve pain, quality of life, patient acceptable symptom state, strength, flexibility, anxiety, depression and presenteeism. Effectiveness on presenteeism is important since a main aim of a CFRP is to improve work outcomes. No significant difference was observed on leg pain and relative absenteeism, probably due to lack of power and small follow-up. Depression did not significantly change, but levels at baseline were low.

A significant association was observed between response and higher duration of low back pain and lower baseline back strength. This could be explained because patients with higher duration of low back pain and lower back strength may have also the worst state of function, though this should be explored further.

This study has strengths and weaknesses. The design was a cohort study which does not control for other sources of effects (such as contextual factors) but allows to reflect clinical practice [31]. The results of this study should be confirmed by randomized controlled trials. However, the positive effect observed across different outcomes is obtained from a large population (N=193) and pleads in favor of the efficacy of the CFRP. In terms of population, the CFRP is mostly indicated for patients currently in professional activity. However, 16% of patients were included even though they were not currently working, mostly because they were on short-term sick leave. The outcomes chosen for the study reflect both physical, psychological and professional activity. It could have been useful to analyse factors

associated with absenteeism. However, because this variable was not available in all the patients, we analysed the Oswestry disability index as primary outcome: this is a well validated and widely used outcome in LBP [19]. We did not collected the number of recurrences features of chronical pain states of an single episode to characterise chronicity. However, since mean duration was 9.0 year, we have classified patients as “chronic”. The follow-up chosen for this study (3 months) is short to evaluate the impact of an intervention with an average duration of the disease of 9 years. A longer follow-up should be considered in a more in-depth study. Finally, a high lack of follow up at the 3 month time point was observed (36%). This could be explained by a high rate of patient still working who had difficulties to reach the hospital during a working day just for an assessment. Another explanation may be that there is no need to return to the hospital due to better health. This drop out ratio didn’t allow to carry out an intent to treat analysis. However, no differences were found when comparing their characteristics (except for strength at baseline) and the efficacy of the CFRP was similar at the end of intervention and 3 months follow-up.

In conclusion, a 4-day interventions for chronic LBP in professional activity showed a small effect in improving physical function and avoiding professional consequences of cLBP while maximising feasibility. These results, if confirmed by other studies, may encourage other centres to implement a condensed functional program, and may help to choose who to orient towards this CFRP. Further studies are needed to assess the benefits on work outcomes such as sick leave with longer follow-up.

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Author contributions : **Davergne Thomas :** Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Supervision; Validation; Visualization; Writing - original draft; **Bailly Florian :** Data curation; Formal analysis; Methodology; Supervision; Validation; Visualization; Writing - review & editing; **Foltz Violaine :** Supervision; Writing - review & editing; **Lambert Anne :** Data curation; Funding acquisition; Investigation; Writing - review & editing; **Fautrel Bruno :** Supervision; Writing - review & editing; **Gossec Laure :** Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Supervision; Validation; Visualization; Roles/Writing - original draft; Writing - review & editing.

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Figure:

Figure 1: Flow chart of patients with chronic low back pain participating in a condensed functional restoration program between April 2012 and April 2018

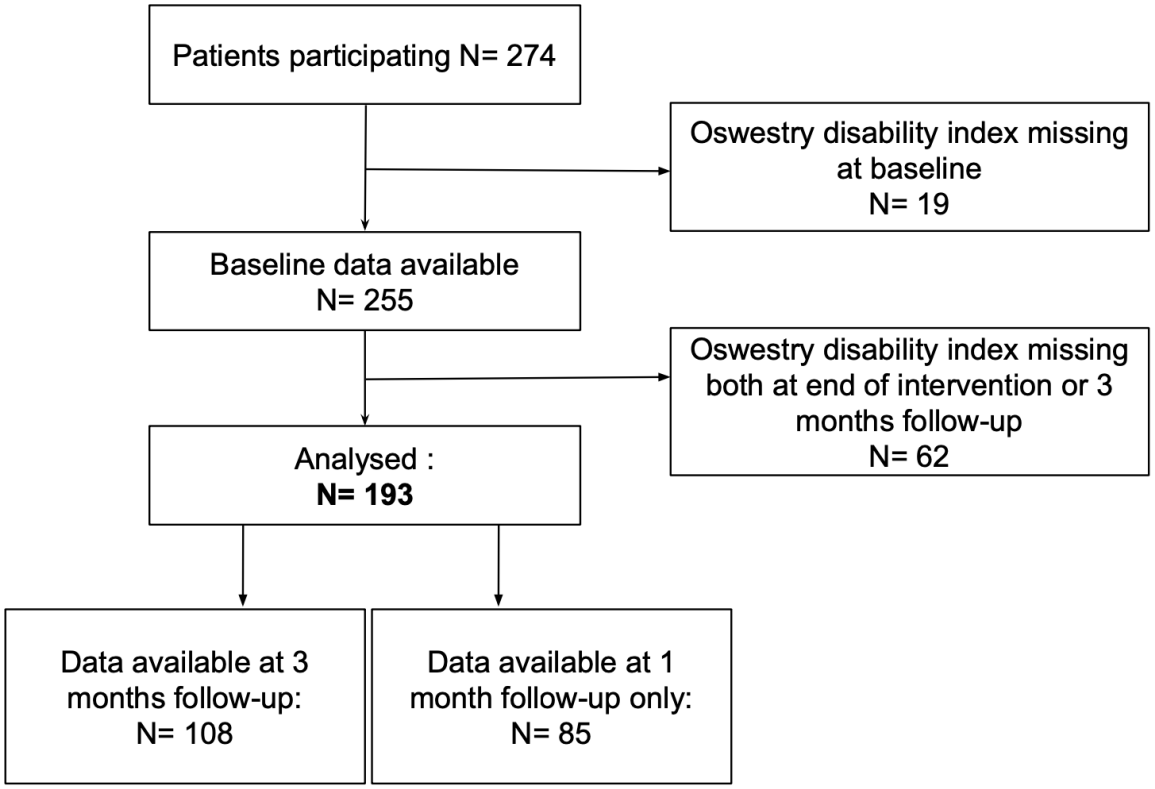
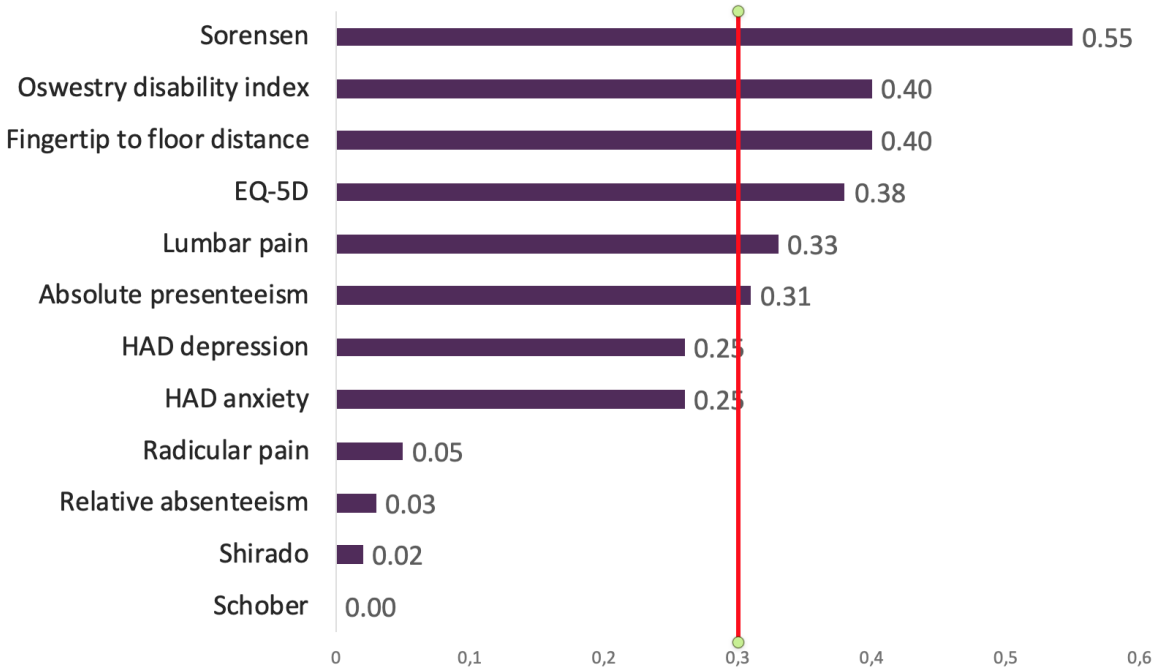


Figure 2: Standardised mean differences of quantitative variables measured before and after the CFRP for patients with cLBP.



Footnote: X axis: Standardized mean difference, Y axis: outcomes. The vertical bar represents a standardized mean difference of 0.3, which is the usual cutoff between low and moderate effects.
HAD: Hospital Anxiety and Depression scale.

Table 1: Description of the condensed functional restoration program for patient with chronic low back pain.

Therapist	Activity	Duration	Week number
Physiotherapist trained in therapeutic education of the patient	Assessment	2h	1, 4
Physical activity specialist	Stretching and Fitness	2h	1
Pain Physician	Neurophysiology of pain information	1.5h	1,2
Physiotherapist	Fitness, Proprioception, Sitting gymnastics and Gym ball	2h	2,3
Occupational therapist	Lumbar ergonomy (theory and practice)	1h	2,3
Yoga teacher	Yoga lesson	1h	2,4
Physiotherapist trained in cognitive-behavioural therapy	Cognitive-behavioural therapy	1.5h	3
Nurse	Information on medication	1.5h	3
Occupational therapist and Adapted physical activity specialist	Sport and sexuality workshop	1.5h	4
Dietitian	Lifestyle workshop	1.25h	4

Table 2: Baseline characteristics of 193 patients with chronic low back pain attending a condensed functional restoration program

Characteristics	**Values (N=193)**
Age, years, mean (SD), range	44.6 (10.4)
Gender, male, N (%)	76 (39.0)
LBP duration, years, mean (SD)	9.0 (8.8)
Professional activity: Yes, N (%)	162 (84.0)
Body mass index (kg·m−2), mean (SD)	26.4 (8.8)
Karasek psychological demand (9-36), mean (SD)*	23.9 (5.1)
Karasek social latitude, mean (SD)*	67.8 (13.9)
Karasek social support, mean (SD)*	21.0 (6.2)
Socio-professional category[£], (high) N (%)*	78 (48.0)
Oswestry Disability Index, mean (SD)	29.7 (14.0)
Lumbar pain (0-100), mean (SD)	38.2 (23.4)
Radicular pain, yes, N (%)	96 (49.7)
Radicular pain (0-100), mean (SD)[$]	45.5 (19.9)
Patient acceptable symptom state, N (%)	79 (46.0)

SD: standard deviation

* Karasek scores and socio-professional category were analysed among workers only, n=162

[£]High socio-professional category was being defined as higher managerial, administrative and professional occupations

[$]Mean radicular pain calculated on patients with radicular pain, n=96

Table 3: Effectiveness of a condensed functional restoration program for patients with chronic low back pain.

	Whole cohort (n=193)				Patients at 3 months only (n=108)			
Outcome	**Baseline value**	**Follow-up Value**	**p-value**	**Mean difference (95%CI)**	**Baseline value**	**Follow-up Value**	**p-value**	**Mean difference (95%CI)**
Oswestry disability index (0-100), mean (SD)	29.7 (14.1)	23.8 (15.1)	< 0.0001	5.9 (1.9)	30.4 (14)	23.6 (16.1)	< 0.0001	6.8 (2.8)
Lumbar pain (0-100), mean (SD)	38.9 (23.3)	30.8 (25.9)	< 0.0001	7.7 (3.8)	38.0 (31.0)	30 (27.7)	< 0.01	6.9 (5.2)
Radicular pain (0-100), mean (SD)*	45 (20)	46 (23)	0.51	2 (6.4)	20.6 (25.6)	18.4 (26.6)	0.45	2.2 (8.8)
EQ-5D (-0.53 - 1), mean (SD)	0.53 (0.26)	0.65 (0.26)	< 0.0001	0.11 (0.05)	0.52 (0.27)	0.56 (0.31)	0.04	-0.07 (0.1)
PASS, N (%)	79 (46)	120 (69)	<0.0001	-	49 (43)	84 (71)	< 0.0001	-
Absolute presenteeism (0-100), mean (SD)	65 (20)	71 (19)	<0.01	4.7 (3.0)	65 (20)	68 (23)	0.02	5.3 (4.5)
Relative Absenteeism (0-100), mean (SD)	14 (51)	15 (34)	0.99	0.00 (0.10)	15 (61)	24 (41)	0.49	5 (0.1)
Shirado (second), mean (SD)	94 (70)	109 (70)	< 0.0001	15 (7.0)	103 (75)	117 (55)	< 0.01	14.1 (10.8)
Sorensen (second), mean (SD)	66 (54)	95 (58)	< 0.0001	29 (8.3)	73 (59)	109 (55)	< 0.0001	33.1 (12.0)
Schober test (cm), mean (SD)	6 (3)	6 (3)	0.38	0 (0.4)	6 (3)	6 (2)	0.85	0 (0.4)
fingertip to floor test (cm), mean (SD)	20 (16)	15 (14)	< 0.0001	5 (1)	19 (16)	14 (13)	< 0.0001	5.0 (1.7)
HAD anxiety, mean (SD)	9.0 (4.0)	7.9 (3.8)	< 0.0001	1.5 (0.4)	9.1 (4.0)	7.9 (3.9)	< 0.0001	1.6 (0.6)
HAD anxiety, score >11, N (%)	48 (26)	29 (15)	< 0.0001	-	29 (24)	20 (17)	0.02	-
HAD depression, mean (SD)	6.1 (4.0)	5.1 (3.7)	< 0.0001	1.2 (0.4)	6.4 (4.1)	5.4 (3.9)	< 0.0001	1.5 (0.6)
HAD depression, score >11, N (%)	14 (8)	7 (4)	0.07	-	12 (10)	8 (6)	0.24	-

SD: standard deviation ; VAS: visual analogue scale ; HAD: Hospital Anxiety and Depression scale ; *Radicular pain was calculated for patients with radicular pain, n=96
PASS: Patient acceptable symptom state; SD= Standard deviation; 95%CI= 95% confident interval
Data were available for more than 90% of the patients except for PASS (missing in 11%), absolute presenteeism (missing in 15%), relative absenteeism (missing in 20%), and EQ-5D (missing in 48%).

Table 4: Factors associated to response to the CFRP in 193 patients at last follow-up: Univariate and multivariate logistic regression.

Variable	**Univariate analysis (P value)**	**Odds Ratio (95%CI)**	**P value**
Duration of low back pain, for 5 years	0.18	1.41 (1.06,1.88)	0.02
Sorensen (back strength), for 1 minute	0.03	0.54 (0.29,0.99)	0.05
Baseline anxiety (HAD)	0.04	1.09 (0.97,1.22)	0.15
Baseline Patient acceptable symptom state	0.18	0.75 (0.3,1.91)	0.55
Baseline lumbar pain	0.24	0.99 (0.97,1.01)	0.86
Socio-professional category	0.01	0.73 (0.31,1.76)	0.49
Karasek social support	0 .27	1.01 (0.93,1.08)	0.81

CI: Confidence interval

HAD: Hospital Anxiety and Depression scale