ABSTRACT

Chronic Pain treatment guidelines now emphasise the importance of combining physical and behavioural aspects of care. Multi-disciplinary team programs are scarce and expensive. The majority of patients experiencing Chronic Pain are managed by their General Practitioner (GP) or Nurse Practitioner (NP) and there is now an acknowledgement that primary care practitioners require to be upskilled to better cope with patients experiencing Chronic Pain (66). Cognitive Functional Therapy (CFT) which combines physical and behavioural aspects of care, can be offered by a skilled physiotherapist, providing optimal care in the primary care setting.

Background – A pilot study conducted in early 2020 showed promising results for the use of CFT in the treatment of Chronic Pain in the primary care setting (60). In response to this the Modernising Pain Pathway Program MPPP Chronic Pain Specialty Network (MPPP) of the Scottish Government funded further CFT involving two primary care facilities. The original pilot study involved the treatment of 19 patients and this further funding provided for an additional 81 patients.

This study also examined experiences and attitudes of primary care physicians in relation to treating patients experiencing Chronic Pain and whether these varied when CFT was made available in the primary care setting.

Aim – To measure the effect of CFT as a tool in the treatment of those experiencing Chronic Pain. To identify attitudes and experiences of primary care physicians dealing with patients experiencing Chronic Pain and to see whether having an available CFT practitioner changed their beliefs and experiences.

Design and Setting – Patients from two GP practices in the Western Cluster of NHS East Lothian were treated individually in a GP practice by one of two CFT trained physiotherapists.

Methods – 81 patients experiencing Chronic Pain took part in the study. Patients were seen individually. Data were gathered to measure patient perceptions (function and wellbeing levels, including pain levels), patient perceptions regarding the value of the treatment, patient goals and medication usage. Qualitative data was gathered during consultations and in some instances, patients wrote in to express their views at the end of the course of their treatment.

Email questionnaires were sent to GP's early in the study and again following the study allowing for qualitative comments regarding their experiences in dealing with patients experiencing Chronic Pain.

Results – The results of this study found that;

- 82% of all participants improved meaningfully on the Brighton Musculoskeletal questionnaire score (BmPROM)
- 80% of all participants improved meaningfully on the Patient Specific Functional Goals (PSFS)
- 67% of all participants scored highly on the Patient Global Impression of Change Score (PGIC)
- Most patients reported reducing medication usage

Qualitative data gathered from GP's confirmed them to find CFT in the primary care setting to be a valuable service.

Conclusion – Results of this study suggest that CFT is an effective tool in the treatment of Chronic Pain reflecting earlier research conducted in the pilot study. Referrers in this study believed CFT to be helpful when provided in the primary care setting.

Keywords – Cognitive Functional Therapy (CFT), chronic pain, biopsychosocial, prescription medications, pain management, primary care setting.

HOW THIS FITS IN

GP's and NP's are keen to reduce opioid and gabapentinoid prescriptions for those experiencing Chronic Pain as they are aware of the potential harm from these medicines. Many are finding this difficult as they are unable to offer alternative, effective, accessible treatments. CFT has been shown as an effective treatment for patients experiencing Chronic Pain, combining physiotherapy and behavioural therapy. When offered in the primary care setting, it is an affordable, effective and accessible treatment. This study has shown that CFT in a primary care setting reduced pain and disability scores and improved function and well being scores as well as reducing medication usage. Whilst CFT was available within the primary care setting, GP's and NP's found this to be helpful as it supported self-management and lessened the need for their input.

COGNITIVE FUNCTIONAL THERAPY AS A TREATMENT IN A PRIMARY CARE SETTING FOR THE TREATMENT OF CHRONIC PAIN; AN EXAMINATION OF PATIENT OUTCOMES AND GP/NP EXPERIENCES. August 2021

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INTRODUCTION

With the recognition that pain is multifactorial and complex, there is now wide support for the application of biopsychosocial perspectives in treating chronic pain (9) and this is reflected in the latest Scottish Government guidelines(7).

However it has been found that generally GP's and NP's do not adopt such guidelines (10). This is due in part to there being a lack training when tackling bio-psychosocial factors as well as there being too little time during consultations to allow for adequate treatment (10, 11), contributing to burnout (12). In Scotland, only a small proportion of patients are referred to specialist pain services (including psychological services) as these tend to be costly, centralised services and only accommodate a limited number of patients (13). The majority of patients with Chronic Pain are managed in the primary care setting and the need to upskill primary care clinicians has been identified (66).

The Chronic Pain Specialty Group of the Scottish Government and MPPP have set out to find appropriate ways of improving the treatment journey for those experiencing Chronic Pain. This study was one of 13 projects funded by MPPP (59).

In Scotland NHS contracts now allow for Advanced Practitioner Physiotherapists (APP's) to be employed in the primary care setting. If APP's were given additional training in a biopsychosocial care approach, patients could be given easy access by Chronic Pain specialists at the outset, providing an optimal, cost effective solution.

Cognitive Functional Therapy (CFT), a bridge between psychologically and physically based interventions

Chronic Pain is complex and multifactorial. There is growing evidence that the predictors of poor outcomes for Chronic Pain are related to negative cognitions, emotions and behavioural responses to pain that set up a vicious cycle of pain and disability (9).

CFT has evolved from the integration of behavioural psychology and neuroscience within physiotherapy practice. It uses a multidimensional 'clinical reasoning framework' to identify key modifiable targets for the management of pain. This is achieved by carefully listening to the individual's story and examining the individual's behavioural responses to pain. CFT examines pain in its widest possible context, looking at an individual's history, pathoanatomical factors, pain characteristics, psychological factors (both cognitive and emotional) and social factors (9). Broadly speaking, the approach targets the pain and promotes coping strategies. It helps patients to reconceptualise their pain from a biopsychosocial perspective and at the same time dispels damaging beliefs. As part of the approach, helpful cognitive and behavioural responses to pain are identified. Patients are helped to build confidence to engage in functional activities that are related to their goals through functional movement training. They are also encouraged to adopt a healthy lifestyle by targeting activity avoidance, poor sleep habits, stress management and dietary advice, therefore targeting lifestyle factors as an integral part of the treatment to improve overall wellbeing (9,5).

Evidence for the efficacy of CFT

There have been various randomised controlled studies confirming the use of CFT for the treatment of chronic pain (15, 16, 17) and there are two further studies being conducted in the UK and Australia (18,5). One further study compared CFT with CBT and other behavioural approaches which demonstrated that CFT had significantly larger reductions in disability and pain intensity and improved quality of life. CFT was provided at a lower cost and a higher proportion of patients withdrew from opioids - 27.8% as compared to 18.2% in the control group (19).

Aside from RCT's, qualitative research has identified that people who respond positively to CFT learn enhanced pain control strategies and self-efficacy to achieve independence in engaging in valued activities. A successful outcome after CFT seems dependent on instilling biopsychosocial pain beliefs and developing independence among participants. (20).

METHOD

Project and setting

The project was set in an East Lothian primary care facility, supporting patients from two GP practices. It was funded by a grant of £10,400 from MPPP (59). Two local physiotherapists, trained in CFT were contracted to carry out 1:1 consultations with patients (see footnote 1)¹.

Patient Selection

Adult patients (over 18 years old) experiencing Chronic Pain were recruited to this study by referring GP's and NP's. They were required to be independently mobile in order to attend the consultations and to speak and understand English well enough to be able to complete questionnaires independently.

Patients suffering from true radicular pain (those suffering from spinal stenosis, nerve root compression or disc prolapse), progressive neurological disease (such as Parkinsons, Multiple sclerosis, MND), arthritides, pain known to be due an underlying orthopaedic condition or pain related to red flag disorders were excluded from the study.

In total, 81 patients (60 female and 21 male) were invited for treatment. Of these, 15 attended the initial consultation only (therefore no follow up data were available for analysis), 6 did not sign the

¹ Liz Noar, Advanced Practitioner Physiotherapist

Graham Curlewis, Advanced Practitioner Physiotherapist

consent form, and 4 were found to be referred inappropriately due to underlying conditions (these included undiagnosed MS, polymyalgia rheumatica, chest infection, orthopaedic foot issue requiring surgery). Data from 56 patients was therefore collected and collated.

Of this group

- 4 were suffering from head and neck pain
- 33 from low back pain
- 10 from fibromyalgia
- 4 from leg pain
- 1 from arm pain
- 4 unexplained global pain

Prior to being seen at this clinic

- 57% had previously had NHS physiotherapy
- 11% had private physiotherapy, chiropractic treatment and NHS physiotherapy
- 5% had attended the specialist Pain Clinic in Edinburgh
- 25% had been treated by medication alone

Consent

At the initial consultation, patients were asked to fill out a consent form allowing for the use of their data (see APPENDIX 13). Each person was given a copy of the consent form for their records.

Data gathering

Four sets of data were gathered as follows;

- Prior to the initial consultation and all subsequent consultations, patients completed the Brighton Musculoskeletal Patient Reported Outcome Measure (BmPROM) (APPENDIX 1 (61)).
- During the initial consultation participants were asked to identify functional goals, identifying activities that had been impeded by their pain (PSFS, see APPENDIX 3(22)).
- Prior to the second and subsequent appointments, patients were asked to fill out a Patient Global Impression of Change Scale (PGIC, see APPENDIX 2 (62)).
- At each consultation, medication usage for each patient was recorded as reported by patients.

EXPERIENCES AND ATTITUDES OF REFERRERS

A month after the start of the study, GP's and NP's were issued an email questionnaire regarding their experiences and attitudes when treating patients experiencing Chronic Pain and this was sent again following the completion of the study (APPENDIX 10).

Treatment

Participants were seen individually for one hour by the physiotherapist and were given a comprehensive one to one interview and physical examination. The examination followed a systematic process but was individually tailored for each patient.

At the end of the initial consultation, a strategy for controlling symptoms was identified in collaboration with the patient and techniques were taught to practice at home. Where specific musculoskeletal issues were identified (such as weakness in lower extremities), exercises were given. For 25% of participants, underlying MSK disorders were identified and treated by the physiotherapist alongside CFT. Patients were given handouts with information on pain, sleep, and other tops where appropriate (See APPENDICES 4-9).

Following the initial consultation patients were invited for further treatment. Follow up sessions lasted 30 minutes. The number of treatments ranged from 2-11 sessions (mean 3.5 visits).

RESULTS

The treating physiotherapists obtained all data at baseline and following intervention.



BmPROM RESULTS (ENTIRE GROUP)

The mean improvement in BmPROM score for all 56 patients was 75% (this is calculated by using the starting score as the baseline (63). Note that the higher the score, the better the outcome (maximal possible score is 100).



PGIC results (entire group)

- 7 = felt 'a great deal better, and a considerable improvement that has made all the difference' (30%)
- 6 = felt 'better, and a definite improvement that has made a real and worthwhile difference' (21%)
- 5 = felt 'moderately better, and a slight but noticeable change' (16%)
- 4 = felt 'somewhat better, but the change has not made any real difference' (7%)
- 3 = felt 'a little better, but no noticeable change' (10%)
- 2 = felt 'almost the same, hardly any change at all' (8%)
- 1 = felt 'no change (or condition has got worse)' (5%)

PSFS results (entire group)



Average improvement in PSFS was 3.6 for the whole group (where 0 is unable to perform and 10 is able to perform normally).

Scores are calculated where 0 is inability to attempt a task and 10 is fully able without any problems or pain. A change of 2 points represents a meaningful change (APPENDIX 3).

MEDICATION USAGE (ENTIRE GROUP)

- 40 (71%) Patients either partially or entirely reduced their medications
- 9 (16%) patients did not change their medication usage
- 7 (12%) patients were not taking medications

Results from the 56 patients have been grouped according to the relative improvements where:

- Group 1 (n=34) Participants in this group improved meaningfully in all 4 categories (BmPROM, PGIC (between 5 and 7), PSFS and reducing medications)
- Group 2 (n= 8) Participants improved in 3 out of the 4 categories
- Group 3 (n= 7) Participants improved in 2 out of 4 categories
- Group 4 (n= 7) Participants improved in 1 out of 4 categories

	Average % change in BmPROM*	Average change PSFS**	PGIC score (Mode and range)***	% reducing medication usage of those taking pain medications
Group 1	96 %	6.9	7 (Mode) 5-7 (Range)	100%

Group 2	41 %	5	5 (Mode) 3-7 (Range)	63%
Group 3	44 %	3	2 and 3 (Mode) Range 2-4	43%
Group 4	32 %	-0.5	1 (Mode) Range 1-4	14%

*Where 30% represents a meaningful change

**Where a 2 point change is meaningful

***Where 7 is the most improvement and 1 represents no change or slightly worse

****Note that medication usage has been noted according to patient's reports.

Please refer to Appendix 11 for graphs representing the 4 sets of data for the 4 groups. Please refer to APPENDIX 12 shows qualitative data for the 4 groups.

LOW BACK PAIN

The majority of patients (58%) referred for treatment in this study were suffering from low back pain. Of these 66% improved in all 4 categories measured (group 1), and 12% in each of groups 2, 3 and 4.

FIBROMYALGIA

10 participants in the study had been diagnosed with fibromyalgia. Of these 5 improved in all 4 measurement categories, 2 improved in 3 and one participant did not improve at all. This person was referred back to her GP as she was suffering from severe depression and anxiety.

CONVENTIONAL PHYSIOTHERAPY ALONGSIDE CFT

23% (13 patients) required conventional physiotherapy. Alongside the non-specific pain that responds well to CFT, these patients were found to be suffering from underlying musculoskeletal dysfunctions that responded well to physiotherapy. Treatment at this clinic offered a 'one stop shop' for these patients. 2 of the 13 patients were found to be suffering from primary MSK conditions as the cause of their Chronic Pain, one with cervical spine stiffness causing headaches and the other from a stiff hip. Conventional manual therapy improved these patient's symptoms and they improved in all 4 categories measured.

Onward referral

9% of participants required referral to specialist counselling services as they were suffering from depression and anxiety which did not respond to the CFT approach. 1 patient was referred to the Specialist Pain Clinic (multi-disciplinary team, NHS Lothian) and 1 further patient was referred back to the GP as she was suffering from dizziness.

REFERRERS ATTITUDES AND BELIEFS

8 referring clinicians completed questionnaires 1 month after the project started and following completion of the project. Of these 8 clinicians, 6 had referred patients to CFT.

In the initial questionnaire they recorded a mean of 6/10 level of stress when dealing with patients with Chronic Pain (where 10 is the most stressful and 0 is stress free). Following the project, this had reduced to 5/10.

When asked about how easy they found it to initiate discussions about decreasing opioid and gabapentinoid prescriptions for patients they responded with a mean of 5/10 in the earlier questionnaire as compared to 4/10 after the project.

With this small sample and small changes noted, it is not possible to draw conclusions in regard to the effect of CFT for these referrers. However their qualitative responses confirm that they had found the service to be helpful:

'Marvellous service for the practice and it's patients. Some astounding results reported by patients.'

'I am really disappointed that this service cannot continue. It is one of the most useful services we have to offer, and it is a service for some of our most complex cases to manage. I hope the funding can restart in the future. I will continue to apply some of Liz's theory to my own consultations, but GPs just don't have the time needed in a consultation to give patients the time they need for this change to patient approach.'

'Lack of clarity about funding led to an uncertain and sporadic availability of the service and so greatly limited GP awareness and referrals. ALL the patients I referred were fulsome in their praise of Liz's approach and I would be extremely disappointed if this service was not supported in some way.'

'It has been really useful to have this resource available in the practice. I saw several examples of positive outcomes in patients who had attended the CFT physio (both in their perception of their pain problem and reduction in medication use).'

'I have found it hugely beneficial to have access to CFT sessions for my patients within our health centre. During the project I had many consultations with patients who were struggling with chronic pain. The ability to offer them this approach without referring on to a waiting list of indeterminate length made it easy for me to avoid increasing analgesic prescriptions. Many patients have reported a very significant improvement in quality of life.'

DISCUSSION

The results of this study have shown that CFT has improved pain, disability, function and medication usage for participants in the majority of participants in all 4 categories being measured. When CFT was available in this primary care setting, referrers found it to be beneficial.

Key results

In this study, after CFT:

- 82% of all participants improved meaningfully on the BmPROM score
- 80% of all participants improved meaningfully on the PSFS score (functional goals)
- 67% of all participants scored between 5 and 7 on PGIC, reporting a definite improvement in symptoms
- 71% of all patients reduced their medication usage

confirming CFT to be an effective treatment option for this diverse group of patients experiencing Chronic Pain.

When CFT was available to referrers, GP's and NP's felt that the service was valuable.

The role of belief systems

We now understand that effective treatment for Chronic Pain must focus on changing an individual's negative pain beliefs and cognitions. The patients who responded well to treatment in this study showed changes in their attitudes following intervention. On the whole, measures for their overall wellbeing and function were improved significantly.

Following treatment, most of these patients managed to achieve the functional goals that they themselves had set. Many of their goals related to taking more exercise and becoming more active and these participants reported feeling better as a result of this. This study has demonstrated that CFT addresses the vital issues of changing pain beliefs and encouraging exercise, as highlighted in the latest Scottish guidelines (7).

Most studies examining the efficacy of CFT examine its effects for low back pain. However in this project, a diverse group of pain sufferers with varied comorbidities were invited to join the study. These people were chosen because their GPs and NP's needed to find alternative treatment for them.

The majority of participants referred for treatment in this project were from an area of social deprivation. The GPs and NP's at this clinic are trying hard to follow the latest national guidelines and to reduce opioid medication prescription rates for chronic pain patients. Having a CFT trained physiotherapist available within this surgery has allowed the referrers to offer an alternative to medications which has proven to be successful in terms of treatment outcomes and has been helpful to the GPs.

Implications for the NHS

This study demonstrates that the majority of patients experiencing Chronic Pain benefitted from the CFT offered in their local primary care setting. In this study, the CFT practitioner was able to identify the small number of patients (10%) who required specialised intervention and these patients were referred appropriately. Only one person required referral to the specialist Pain Clinic. CFT offered immediate access to adequate treatment for the majority.

A Cochrane review of the literature concluded that treatment outcomes for specialist pain services were not significantly better than other forms of treatment to merit their widespread use given the considerable expense of providing these services (66). The majority of patients suffering from Chronic Pain are managed in their local primary care facility. CFT offers an immediate, affordable, effective solution for the majority of patients. Patients in this study were treated on average 3.5

times. 81 patients were evaluated and 56 received a full course of treatment for the total sum of £10,400. This represents a fraction of the cost of sending the same patients to a specialist service or if receiving long-term medication.

It has already been established that an APP working in a primary care setting as the first point of contact for musculoskeletal patients reduces costs, reduces the number of scans and tests and GP consultations and on ward referral and improves self management rates (13). In addition to these savings, having an APP trained in CFT, working in the primary care setting would reduce the strain on specialist pain services. In addition, early intervention by an APP could prevent the acute pain patient from developing chronic pain if seen early in the primary care setting.

CFT is an affordable and effective treatment. However there are few practitioners trained in CFT in Scotland. Providing training for more therapists would be a prerequisite if CFT were to be implemented in a larger number of settings. There is evidence that enhanced training in CFT improves clinician's confidence and abilities in treating Chronic Pain (64). In other trials and RCT's, the CFT group offers an enhanced level of training to the physiotherapists conducting treatment and trains trainers as a part of this (18). The CFT group has offered to train a group of physiotherapists in Scotland at this enhanced level, ensuring that two members of the group are taught to educate further therapists, allowing future self-sufficiency (see footnote 2).² This would be an affordable way of extending CFT practice in Scotland and a first step in properly identifying the benefits of CFT in diverse settings throughout the region.

Limitations

Results from this study should be treated with caution due to the relatively small patient population and the lack of control group.

This project was interrupted by Covid 19 in early 2021 and was re-started in April 2021. Certain patients were consulted by telephone but many patients did not have access to telephones or computers.

Due to financial limitations, this study was conducted over a short period of time, long term follow up would be useful to confirm outcomes.

One of the treating physiotherapists collated all data and wrote the paper which is therefore subject to bias.

Data for changes in medication usage has been gathered from participants. Data for prescription rates will not be available for some months.

Future research

A properly conducted, randomised control trial with an adequate sample population, comparing CFT to other available treatments should be conducted over a longer period of time within primary care settings. It would be helpful to look at people from different geographical areas and examine the impact of CFT in the long term, assessing the impact on long term care seeking and work

² Following the pilot study, the CFT group quoted a sum of £15,000 to train 20 physiotherapists at an enhanced level, training two of these as educators.

absenteeism. Wider economic effects should be examined including the cost of long term disability and social care. Costs and frequency of GP consultations and other healthcare costs such as MRI's and other tests as well as the cost of prescription medications should also be measured.

Future studies of CFT should include booster sessions in order to reinforce helpful perceptions and behavioural responses to pain in the long term.

Further research comparing the effects of CFT to other treatment techniques such as Cognitive Behavioural Therapy and other behavioural techniques, alternative physiotherapy approaches and other treatments currently recommended in SIGN 136 would help to determine effective treatment approaches and their costs and could be used to guide future care.

Research into the effect of CFT for the treatment of fibromyalgia would be worthwhile. The majority of fibromyalgia patients participating in this study showed improved pain and disability levels with treatment.

Chronic pain sufferers generally present with wide-ranging co-morbidities. This study has shown that CFT can be used effectively in people presenting with multiple issues and it could therefore be used in treating similar patients.

Conclusion

This is a small scale project, carried out in a GP practice. It is the second Scottish study to examine the effect of CFT on disability, function and pain outcomes. For the majority of patients, CFT improved pain, function and wellbeing levels. This study suggests that CFT which gives an individually tailored treatment approach that focuses on combining psycho-social and physical factors can improve pain and disability levels in patients with diverse chronic pain conditions. When offered in the Primary Care Setting, CFT improved referrers experiences in offering treatment for Chronic Pain. When CFT was available, primary care referrers found it to be helpful and improved their patient management of Chronic Pain.

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APPENDIX 1 - BmPROM

BRIGHTON MUSCULOSKELETAL PATIENT REPORTED OUTCOME MEASURE (BmPROM)+

In order to assess the effectiveness of your physiotherapy treatment, we would be grateful if you would take five minutes to complete this outcome measure questionnaire. Please circle the appropriate number for your response. Each of your responses should be answered in relation to the problem that brought you to physiotherapy.

0 No quality	1 vatall	2	3	4	5	6	7	8 Best	9 quality of life	10
. to quality	acui							Dest	quality of mo	
2. Please	tell us the	e average	e amount	of pain the	at you have	e felt over f	he last we	ek:		
0	1	2	3	4	5	6	7	8	9	10
No pain									Severe Pain	
3. Please out, socia	tell us ho l outings,	w able yo sporting	ou feel to ta activities e	ake part in etc	your norm	al leisure	and socia	activitie	s , for example	e, eating
0 Not at all	1	2	3	4	5	6	7	8	9 Fully able	10
4. Please gardening	tell us ho ı, dressin	w able yo g, decora	ou feel to c ting, drivin	arry out yo g, shoppin	our normal g etc:	everyday	activities	, for exam	ole, housewo	rk,
0 Not at all	1	2	3	4	5	6	7	8	9 Fullv able	10
									-	
5. Please	tell us ho	w much y	ou depen	d on pain i	relieving n	nedicatior	to help yo	ou cope wit	th your currer	nt problem:
0	1	2	3	4	5	6	7	8	9	10
-	Not at a	all	5		0	5	,	Fu	Ily reliant on	medication
6. Please	tell us ho	w much y	our sleep	is disturbe	ed by your	current pro	blem:	0	0	40
	1	2	3	4	5	6	7	8	9 the all a trends and	10
NOT at all								Grea	tiy disturbed	
7. Please	tell us ho	w anxiou	is vou curi	rently feel	about the p	oroblem that	at brought	vou to phy	siotherapy:	
0	1	2	3	4	5	6	7	8	9	10
Not at all								Extren	nely anxious	
8. Please	tell us ho	w down ł	nearted an	id low you	have felt in	the last w	eek about	the proble	m that brough	nt you to
physiothe	rapy:	2	2	4	F	e	7	0	0	10
U Not at all	I	2	3	4	Э	0	/ 	ð vtromolu d	9 ownboartad	10
NUL AL AII							Ľ	xtremely u	ownneaneu	
	ell us how	able you a	ire to perfo	rm your no	rmal workir	ng duties.				
9. Please te										
9. Please te	1	2	3	4	5	6	7	8	9	10

10. Overall Change in your condition

If 100% represents making a full recovery & 0% is when your pain was at its worst, where do you think you **currently** are in the **recovery process**?

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
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APPENDIX 2 – PGIC FORM

Physio: Date:

Patient ID:

Patient's Global Impression of Change (PGIC) Scale

Since beginning treatment at this clinic, how would you describe the change (if any) in **ACTIVITY LIMITATIONS, SYMPTOMS, EMOTIONS and OVERALL QUALITY OF LIFE**, related to your painful condition?

- □ 1. No change (or condition has got worse)
- \Box 2. Almost the same, hardly any change at all
- \Box 3. A little better, but no noticeable change
- \square 4. Somewhat better, but the change has not made any real difference
- \Box 5. Moderately better, and a slight but noticeable change

Time:

- \Box 6. Better, and a definite improvement that has made a real and worthwhile difference
- \Box 7. A great deal better, and a considerable improvement that has made all the difference

Hurst & Bolton (2004)

APPENDIX 3 - Patient Specific Functional Scale

Initial Assessment:

I am going to ask you to identify up to three important activities that you are unable to do or are having difficulty with as a result of your______ problem. Today, are there any activities that you are unable to do or having difficulty with because of your ______ problem? (Clinician show scale to patient to have the patient rate each activity).

Follow-up Assessments:

When I assessed you on (state previous assessment date), you told me that you had difficulty with (read all activities from list at a time). Today, do you still have difficulty with (read and have patient score each item in the list)?

Patient-specific activity scoring scheme (point to one number):

0	1	2	3	4	5	6	7	8	9	10
Unable To per	e form a	ctivity								able to perform activity at same level as before injury or problem

Activity	Initial			
1				
2				
3				
4				
5				
Additional				

Total score = sum of the activity scores/number of activities

Minium detectable change (90%CI) average score = 2 points

Minimum detectable change (90% CI) for single activity score = 3 points

APPENDIX 4 – PAIN DIAGRAM GIVEN TO PATIENTS



APPENDIX 5 – PAIN INFORMATION GIVEN TO PATIENTS

PATIENT INFORMATION – Persistent and Recurrent pain

Persistent (sometimes called Chronic) Pain is simply pain that lasts for more than 3 months. Recurrent pain is pain that occurs for no particular reason (there's no obvious cause of injury) and occurs two or more times.

Pain is a complex experience and is often poorly understood by the general public but also by health professionals. Pain is a **whole-body experience** and does not always depend on injury to the structures of our body (think of headaches!). Even if there has been an injury, our body is very good at healing the effected tissues and this most often happens within 3 months or so. When the pain persists beyond this time, it can be as a result of many different factors that can both cause irritation in the tissues, or changes in the way your brain processes information – both of which result in pain. Some of these factors include:

- **Movements, behaviours and habits** such as unhelpful postures or avoidance of activities can have a spiralling effect on pain. Often these habits can be thought to be protective, but in fact they can be provocative resulting in increased pain.
- Lifestyle and social factors can have a huge impact on sensitising your nervous system. These factors include sleep routines and exercise, work and meaningful activities. Getting the balance right will reduce the pain
- **Thoughts and emotions and attitudes** how you think and feel about your problem will directly impact on your behaviour and what you do. Unhelpful or inaccurate beliefs can cause fear which is a major driver of muscle tension/guarding and a sensitiser of ongoing pain.
- **Medications** we now know that strong opiate medications are not good for pain in the long-term. The body often becomes resistant to them, requiring higher doses to achieve the same levels of relief. There is evidence that the nervous system can become more sensitive with long-term use, which clearly defeats the purpose of why these were given in the first place.

There are other factors that will also impact on how easy it is to reduce your pain levels, and it is the job of the physiotherapist to explore all these factors to determine which ones are causing your pain to be maintained. Once the factors are identified, the challenge is then to modify them to create a change in your pain. This process is a joint effort between you and your pain therapist. If we need to involve other health professionals in the process, this can also help.

<u>Treatment</u>

Making Sense of your pain

The first aim of treatment is to make sense of why you have the pain you have through identifying the whole-body factors (eg sleep, anxiety, exercise levels, provocative habits, diet, stress) that are driving the pain. It is important to remember, pain is NOT necessarily an indicator of tissue damage, and beyond 3 months the tissues should have healed. They can remain sensitive, but they will not be damaged.

Exposure to activities or postures with control

Your therapist will work with you to reduce your pain in key movements and postures that are contributing to your pain problems and help you towards achieving agreed goals that will have real value to you. Your brain is amazing and adaptable, so if it is learning to change habits, or relax, or change your thought processes, you can do it with our support.

Lifestyle Change

Your therapist will work with you to change unhelpful lifestyle factors and help you re-engage in meaningful goals. This can involve relaxation, exercise, dietary habits. This can be done in a gradual way so as not to sensitise the problem and create long-term changes in habits.

Pain-related Facts

There are lots of myths around different pain conditions that feed unhelpful and inaccurate beliefs and can drive the ongoing pain. Below are statements that correct some of these myths and may challenge some of your beliefs.

Pain does not mean there is damage

As already mentioned just because you are getting pain with certain activities or positions, this does not mean you are causing damage. This is an indication of increased sensitivity in either your tissues, or your brain, and is very common.

There is no such thing as good posture

There is no single posture that will prevent pain in all of us. In other words, sitting in the 'ideal' upright posture is not always helpful in reducing low back pain. You should adopt postures that are comfortable, even if they involve you slouching. Slouching is not bad for you and will not damage your back!

Low back pain is not caused by a weak core

Low back pain is not associated with a weak core. In fact, people with persistent pain are more likely to tense their core as a protective habit, which can be a source of ongoing sensitivity in the back. Learning to relaxing your core when you move or sit, can often reduce your low back pain.

Scans rarely show the source of pain

The Reports of scan (eg back, knee or hip scans) can often contain scary terms such as degeneration, disc prolapses and arthritis. But these findings are very common in people that don't get pain and don't predict how much pain you feel or how disabled you are.

It is safe to exercise, even when you are painful

It is normal to feel pain when starting to exercise. The pain is more likely an indicator of how sensitive you are, not how damaged you are. In fact, exercise is one of the best treatments for pain. It is crucial that you are guided through the process of building your activity levels to an appropriate level. Your therapist will coach you through this process.

Backs, knees and hips do not wear out with everyday loading

Bending and lifting weights make muscles stronger and moving and loading makes backs and other joints stronger and healthier and more robust. In fact, bending, twisting, running are all safe if you start gradually and practice them regularly.

Injections, Surgery and Strong drugs are often not helpful

Injections and prolonged opiate use for persistent pain problems are associated with poorer outcomes. So it is really important to find ways to reduce your medication. Surgery is also not always guaranteed to produce a better outcome: 20% of knee replacements do not improve a person's pain or function.

Ref: O'Sullivan et.al. 2019 BJSM

Useful links:

Tame the Beast	https://www.youtube.com/watch?v=ikUzvSph7Z4
23 and a half hours	https://www.youtube.com/watch?v=aUaInS6HIGo
Chronic Pain Websites	www.pain-ed.com
	https://painhealth.csse.uwa.edu.au/

APPENDIX 6 – FIBROMYALGIA

Fibromyalgia is a diagnosis given to a set of symptoms which usually includes widespread body pain (this can be neck & shoulders, back & pelvis, but also the arms and legs and headaches too). The pain can also be associated with a feeling of muscle tension, and tenderness in the muscles. A lack of sleep and feeling of fatigue also are core symptoms. Other symptoms such as dizziness, abdominal pain, period pain and low mood are also very common. All this can obviously be highly distressing and disabling.

Research suggests that a combination of genetic and environmental factors are responsible for the development of Fibromyalgia. There is evidence to show that stressful life events can effectively change your genetic makeup such that you become more likely to operate in a constant 'fight or flight' mode. Environmental factors such as early life stress, prolonged periods of stress, poor sleep and either inactivity or over activity can all contribute to the development of symptoms. If this is sustained over a period of time, the body can react by creating changes in the nervous system and immune system that result in widespread sensitivity to movement and touch, and fatigue.

Being given a diagnosis of Firbromyalgia can be quite confusing as there is lots of **misinformation** on the internet. Here are some corrected commonly held beliefs:

- $\sqrt{}$ The pain that is felt in the tissues does <u>not</u> mean there is damage that needs specific local treatment
- \checkmark Exercise and movements that are painful should $\underline{\textbf{not}}$ be avoided
- $\sqrt{}$ Felling tired is <u>not</u> an indicator that you must rest
- √ Treatments such as massage, or manipulation, acupuncture or injections and surgery are <u>not</u> effective or helpful.
- $\sqrt{}$ The pain is <u>not</u> a sign that the tissues are fragile and need protecting
- $\sqrt{}$ There is <u>now</u> a treatment for fibromyalgia
- ✓ Opiates are <u>not</u> a good long-term treatment for fibromyalgia <u>In fact the evidence points to these</u> <u>drugs worsening the condition.</u>

In fact, the reason the tissues feel so sensitive is due to an increase in sensitivity throughout the nervous system. Your brain receives all sorts of information from your body, and in response to this as well as lots of other factors (your environment, mood, thoughts, sleep state, memories, anxiety levels etc) decides whether to produce pain. This is the same for everyone. It is just that with Fibromyalgia, the brain produces more pain and more easily making normal everyday movements and activities painful. This is exhausting! Fortunately, the brain is very adaptable, and can change given the right circumstances. In other words, there is a way out of Fibromyalgia - it is not for life!

So, what can be done to reduce the sensitivity within the nervous system. Adopting good lifestyle habits is a good start:

Good sleep habits are absolutely key to successfully reducing the pain. Life without good sleep can be a major driver of the problem. Your brain can spontaneously produce pain in a chronically sleep deprived state. Engaging in regular movement and activity is also critical to the recovery process. This can be sore to start with, but it is safe to do so as pain is not a sign of tissue damage. As your body and nervous system adapt to the exercise and movement, levels can be progressed over time, allowing you to get back to activities and movements that you care about.

The stress response is a major sensitiser of the nervous system. People often don't realise how stressed they are, and where these stressors come from. Acknowledging the stress and learning to manage the stress and your response to it through relaxation and even meditation can help to calm the nervous system. Changing the way, you think about things can also help to reduce your body's response to stress.

Fully understanding the condition is really important, so please ask if you are not sure about anything.

APPENDIX 7 – SLEEP

Improving your Sleep will Reduce Your Pain

Sleep is fundamental in improving your pain. Pain can disrupt sleep, but poor sleep will increase your pain experience. It is common to still feel tired even if you have had lots of sleep. This might be because the quality of the sleep is poor.

It is important to recognise what a normal sleep pattern looks like. It is not a long smooth curve from start to finish, but looks more like a rollercoaster, where we go from an awake state through stages of deep sleep back to being awake several times a night. It is normal to waken several times a night. Normally though we might change our position and fall back to sleep. Falling asleep quickly, however, requires your nervous system to be in a calm state. Being in chronic pain means that your nervous system is in a much more active state than normal, making it difficult to just fall asleep.



SLEEP STAGES

Notice that deep sleep occurs towards the beginning of your sleep, and REM – where we dream, occurs towards the end of the night. Your nervous system needs to be calm each time you fall into deeper sleep with each cycle. There are techniques we can use to help us control this better.

Techniques to help improve sleep

- Going to bed and getting up at the same time each morning regardless of the sleep you had the night before helps to create a routine.
- Creating a routine that you stick to every night before bed will help your mind prepare for sleep, eg have shower, brush your teeth, put your pyjamas on etc. It is important that the last thing you do in the routine is relaxing as this is part of winding down your nervous system.
- Make the association between bed and sleep in other words only use bed for sleeping and sex. Don't rest in your bed during the day, or watch TV, or lie there stressing about not sleeping. If you are awake for more than 20 minutes during the night, you should get up and do a quiet, non-stimulating activity until you feel tired again.

- Relaxation techniques are a great way to calm the nervous system in preparation for sleep, but you need to practise them. These are very helpful if you are worried about not sleeping, or your pain. You can find an audio here: https://soundcloud.com/painhealthau/painhealth-relaxation-exercise
- Avoid eating heavy fatty or sugary foods before bed. Avoid caffeine (coffee, coke and chocolate for 4 hours before bed). Milk is sleep promoting, so is okay.
- Exercise is important, even low levels but don't exercise within 2-3 hours before bed, your body will be stimulated from this.
- Low lighting, a quiet room and comfortable temperature in the bedroom helps to stimulate melatonin, a hormone that promotes sleep.
- A warm shower can help before bed as it warms our core, which then cools as we fall asleep.
- Deep sleep is really important and avoiding napping through the day will improve the quality of sleep the next night. Napping during the day will mean sleep is lighter at night and then you will want to nap the next day again maintaining the cycle of poor sleep.
- Worrying will increase the activity of your nervous system making it more difficult to fall asleep. Not sleeping because you are worrying about not sleeping is a common scenario and so frustrating! Remove any clocks or turn them around if you find yourself doing this and try the relaxation techniques.
- It is very common for people to lie awake because thoughts are racing around their head. This often is worse during times of stress. Relaxation techniques such as mindfulness are helpful, as it allows you to let go of your thoughts and bring your attention back to the present. You might find writing your thoughts down can stop the circular thinking that happens when you are tired. You can address them in the morning with more clarity.

Low mood and feelings of anxiety will also affect sleep. Treatment for these can also improve your sleep.

Medications can be used to help you sleep but are not recommended beyond short term use. Some medications leave you still feeling tired, and your body can get used to them, making them less effective.

However, some medicines can be useful for short term use to reset your sleep habits and to break a problematic cycle such as napping. There are some medications that are better for sleep when chronic pain is present.

For more information on improving your sleep visit:

https://www.sleephealthfoundation.org.au/fact-sheets.html

https://www.nhs.uk/conditions/insomnia/

APPENDIX 8– JOINT INFORMATION





CHRONIC OR RECURRENT PAIN

PATIENT INFORMATION

What is Chronic pain?

• Pain that is present for more than 3 months or 12 weeks.

What is Recurrent pain?

• Pain that occurs for no particular reason (there's no real cause of injury) and occurs repeatedly (two or more times).

Is Chronic or Recurrent pain caused by damage to a tissue or physical structure? (eg muscle, ligament, bone, tendon, cartilage, joint etc)

No, the body heals in a way that you can predict. If you imagine going over on your ankle, you know that within a few days, the body is well on the way to healing and it will be better soon. The only time that pain recurs is if you re-injure your ankle. The back and the rest of your body is no different – if you damage it, it will heal. The original pain never comes back without re-injury nor will it persist beyond a few days for no reason.

So what causes Chronic or Recurrent pain?

• The latest evidence shows that when a pain persists or recurs for no reason, it is due to changes in the way that the brain perceives the problem. As a result of this, the brain pays too much attention to the problem and causes us to over protect and to focus too much on the painful issue. This leads to more pain and excessive muscle tension.

Is it all in my head? Psychosomatic pain?

• No. This is a physiological process and the pain you feel is very real. It's just that the pain is not coming from a structure in your body. It's due to changes in the brain which can be treated effectively.

How should we treat Chronic or Recurrent pain?

• AVOID EXCESSIVE GUARDING

Your therapist will have told you to avoid holding yourself in a tense way. If you're feeling discomfort, look at how you are holding yourself and relax (drop your shoulders, slouch)

• BREATHE AND RELAX

Your therapist will have shown you how to relax the tense muscles (it's the tension in the muscles that leads to pain). The muscles tense up because your subconscious mind is protecting you. By practising the breathing techniques that your therapist has taught you, you are taking conscious control of this tension, it's a bit like re-writing a computer program. You are re-programming your brain.

• EXERCISE

When your brain is overly protective, it produces certain chemicals that need to be burnt off and the only way of doing this is by getting out of breath. Exercise is the best way of doing this. Your therapist will have talked to you about this – choose something that you enjoy, perhaps a brisk walk or running. Even running up and down the stairs at home is exercise. At any time you could do some squats or sit to stand quickly from a chair, star jumps etc and this will help to ease the discomfort.

Exercise has been found to be hugely beneficial to the body in general – it's good for the heart and lungs, good if you suffer from pain and it's very good if you tend to feel anxious, depressed or just downhearted.

Does it take long to re-program the brain?

• No, because the brain will change with a different input (this is known as neural plasticity), as long as you practice the breathing regularly (3 or 4 times per day or when you are in pain), the brain will quickly change.

COMMON MYTHS

"POOR POSTURE CAUSES PAIN"

This is simply not true. Allow yourself to sit or stand in a relaxed way, do not try to keep your shoulders back or your back straight.

"STRENGTHENING MY CORE WILL IMPROVE MY PAIN"

This is also not true. There is no proven relationship between strengthening the core as a way of improving this type of back pain. If however the only exercise you do involves core exercises then do keep them going – this is better than not exercising at all.

"I NEED TO KEEP MY BACK STRAIGHT TO PROTECT IT WHEN I'M BENDING"

Again this is not true. Backs like to move normally, allow it to relax as you bend.

"BACKS WEAR OUT AS YOU GET OLDER"

There is no evidence that this is the case.

"I HAVE NURSES/FIREFIGHTER'S ETC BACK"

There is no reason that because someone has had a physical job, they will likely develop pain as they get older.

"RUNNING CAN CAUSE BACK ISSUES"

Again, this is simply not true, studies have shown that running actually strengthens the back.

"I SHOULDN'T EXERCISE THROUGH PAIN"

Studies show that you will do no harm if you exercise and it's painful.

USEFUL LINKS

Tame the Beast

https://www.youtube.com/watch?v=ikUzvSph7Z4

23 and a half hours

https://www.youtube.com/watch?v=aUaInS6HIGo

Chronic Pain Website

www.pain-ed.com

<u>Youtube – Peter O'Sullivan interviews</u> <u>https://www.youtube.com/watch?v=Nj6Ik5UuomI</u>

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APPENDIX 10 – GP AND NP QUESTIONNAIRE

Referrer Questionnaire

A very simple questionnaire was emailed to all referring General Practitioners and Nurse Practitioners at the start of the project, and just after the project had finished.

One month questionnaire

- 1) How stressful are you finding dealing with patients with chronic pain?
 - $0 \quad 1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9 \quad 10$

Not at all stressful

Extremely stressful

2)How easy are you finding it to initiate discussions about decreasing long term opioid and gabapentinoid prescriptions for patients without a cancer diagnosis?

0 1 2 3 4 5 6 7 8 9 10

Very easy

Extremely difficult

2) Have you referred any one to CFT physio?

4) Any comments on the referral process?

APPENDIX 11

GROUP 1 RESULTS



Mean improvement was 96%



Mode for PGIC for this group was 7, 'A great deal better, and a considerable improvement that has made all the difference'



Mean PSFS improvement was 6.9

All patients in this group reduced their medication usage

GROUP 2 RESULTS



Mean improvement was 41%



Mode PGIC for this group was 5 ' Moderately better, and a slight but noticeable change'



Mean PSFS improvement was 5

63% of this group reduced their medication usage



Individual Patients

GROUP 3 RESULTS

Mean improvement was 44%



Mode PGIC for this group were 2 and 3 ' Almost the same, hardly any change at all' and 'A little better, but no noticeable change'



Mean PSFS improvement was 3

43% reduced their medication usage

GROUP 4 RESULTS



Mean improvement was 32%



Mode PGIC for this group was 1 'No change (or condition has got worse)'



Mean PSFS change was -0.5

14% (one patient) reduced medications

APPENDIX 12 - qualitative responses, patients

GROUP 1

'I've suffered pain for many years. I attended a chiropractor regularly for 23 years and did pilates with other exercises as well as taking pain killers. I was able to cope with the pain at this time but it never went away. In 2019 I lost my husband suddenly and the shock of this led to numbness in my body and extreme pain. My GP did not think I should go back to the chiropractor. I therefore managed the pain with medication and exercise but the more I did, the worse the pain was. I took co-codamol throughout the day but was still in a lot of pain. I even tried mediation. The pain got a lot worse in March 2021, my medication didn't really touch the pain. In May 2021, I met Liz who explained that the pain was coming from my pain system, rather than damage in my back. Unbelievably after only 30 minutes I could walk easier and when the acute pain started, control it. I have attended 7 sessions with Liz and at each session, the pain in different parts of my body have been addressed.

I cannot believe the difference. For many years the muscles in my back, legs, shoulders and arms have been solid. They are now relaxed and I'm relatively pain free. The improvement is huge. Now I like to bend and exercise and can even sit comfortably. I've reduced my medications and now only take them if necessary before bed. I have benefitted greatly from attending the Pain Clinic and I cannot thank the NHS and Liz enough.'

'I wanted to write to pass on my thanks for the care and advice I've received from Liz, Physio Lead for the Chronic Pain Project in Prestonpans. I have learned so much about my perception of pain, injury and fatigue and the benefits of relearning about posture and how to re-program myself in relation to how I handle these experiences.

What I have learned will be helpful throughout my life..... I know the assistance I have been given is significantly helping em live my life better and hopefully in time, to be pain free.'

This 18 year old attended sessions with mother. Having suffered constant low back pain for 6 years, both were really concerned that she would be suffering life long issues with low back and that these would worsen as she got older. She has had many different types of treatment including NHS physio, consultations with specialists, MRI scans but these had not benefitted her. She remarked that 'this (approach) has been revolutionary and completely different. I can now get rid of the pain and I'm so delighted to have come to this clinic.'

'Feeling so much improved, can't believe the difference, I'm off all medications.'

'Thank you so much again, you've changed my whole life.'

'Have been loads better and now reducing my medications'

Patient first seen 3 days prior to returning to work after long term furlough. He was desperately worried he'd have to resign his work as was convinced that his pain was caused by work. He felt his marriage to be under threat as a result of this. After treatment (2 sessions), he was back to working daily, exercising daily (back in gym), and leading a normal life.

'I can't believe this. It's like magic. I'm no longer on medications, no longer have cramps or pain, no longer limping.'

'I'm feeling really good, pain and balance a lot better. Only needing occasional paracetamol. I'm exercising every day.'

'Feeling great, off all my pain medications and I'm back to normal'

'I'm feeling absolutely thrilled, this has made a huge difference after all these years, so thank you'

Having been in pain and unable to wear normal footwear, after treatment wearing usual shoes, back to working and playing with his grandchildren.

'I can't believe the difference, I've spent a fortune at the Chiropractor over the years and this is so much better'

'I can't believe the improvement in 1 week after 15 years of struggling with'

'Thank you for all you did for me. I really can cope much better with my pain. There are good days and not so good but I know how to manage the not so good ones.

GROUP 2 – QUALITATIVE DATA

'I'm feeling amazed and proud. My pain is so much better. I'm still struggling with depression and sleep issues and my GP is helping with this'.

This patient's life had been turned 'upside down' due to his pain. He'd had to move from his home as he was unable to sustain a job. When he attended treatment, he had moved in with his parents and could not work full shifts. He had been in pain for over 15 years. He responded well to treatment, reduced his medications and started working full shifts, even choosing to do hard, physical work.

'I still think the pain is coming from a damaged nerve'

'I'm feeling a lot better'

'After the first session, I was pain free for 2 months. I'm back as the pain has started to come back'

GROUP 3 – QUALITATIVE DATA

'I can control pain at times - I to keep going with techniques taught at home. It's hard to know if this has worked as pain varies anyway'

'I've been off medications altogether since treatment. After the session I was feeling better. I'm not finding the exercises to be helpful.'

I'm really frustrated as my pain has come back. There's loads of stress at the moment and I can't cope'

GROUP 4 – QUALITATIVE DATA

'There's been no change in symptoms. This isn't working'

'I really can't cope with this (treatment) at the moment, it's opened up a whole lot of things from my childhood and it's too distressing'

APPENDIX 13 – CONSENT FORM

Informed Consent form for Prestonpans Health Centre, pain project

http://www.prestonpanshealthcentre.scot.nhs.uk/practice-policies,56760.htm

This Informed Consent Form is for people who have been treated for their pain by a physiotherapist at Prestonpans Health Centre.

General Information

The doctors at the surgery in Prestonpans, along with East Lothian NHS Pharmacy, have been looking to find an alternative way of easing pain in people who have had pain for more than 3 months.

As part of this you have been treated by a physiotherapist who has gathered information from you (from the questionnaires that you have answered at the consultations and from some of the comments that you have made directly to her about the treatment that you have received).

We are trying to analyse the effectiveness of the treatment and are requesting your permission to use the information that we have obtained from these questionnaires and from your comments. We are interested in analyzing any changes in the amount of medications that you have been taking as a result of the treatment. This information will be used in a general report that may be shared. All information will be used anonymously (your name or personal details will not be available or written in any report).

If you feel you would like to talk to us about this or wish this to be explained further, please contact Dr Beedel at the health centre (01875 810736) or contact Liz Noar directly (telephone number 01620 894495).

PART I: Information Sheet

We are researching the effect of Cognitive Functional Therapy ((CFT) the type of physiotherapy that you have experienced when working with the physiotherapist) on long term pain. Whether it is

beneficial in terms of quality of life (including pain levels), levels of disability and whether it reduces the need for pain medications.

Many people suffer from long term (chronic) pain and find themselves needing to take pain medications for many years. There is recent evidence that these medications are unhealthy if taken for too long. CFT that is used to change a person's understanding of the cause of their pain, has been found to improve pain and disability levels.

People who have been asked to see the physiotherapist are those who have suffered pain for a long time and who have been taking strong pain medications.

Voluntary Participation

It is your choice as to whether or not you allow us to use the information gathered and there will be no repercussions should you prefer it NOT to be used.

At the first consultation with the physiotherapist, you completed questionnaires which will be used as a comparison to the completed questionnaires after treatment, along with the amount of medications that you were taking before and after treatment. In this way we will be able to work out how effective the treatment has been for you. We now wish to use this information to write a report about the effectiveness of CFT. Some of the comments that you have made may also be quoted in the report (terms such as 'I feel no difference', 'This has completely changed my life'. Your personal information and data will not be used in any way in the written report and it will not be possible to identify you.

We are writing this paper as we are constantly trying to improve the care that we provide. The findings from our study offer good information which may be helpful for developing treatment protocols in the wider population outside of Prestonpans.

Duration

The treatment has taken place over 3 months although the physiotherapist is available to talk to you beyond this.

Benefits

From having participated in CFT, we are hoping that your quality of life and pain levels will have improved and hope that you will be requiring less pain medication.

Confidentiality

Your name and personal information will not be used in any way to identify you individually. However the data that you have offered will be mentioned in the report.

Sharing the Results

We intend to share this report with doctors within Scotland and it is possible that this report may be published in a medical journal.

Right to Refuse

You are not obliged to give your consent to our using your information and this will not in any way be detrimental to you or your future care. You have the right to withdraw your consent at any time.

Who to Contact

If you have any questions regarding this, please contact Liz Noar (telephone number 01620 894495 or Dr Beedel (01875 810736).

PART II: Certificate of Consent

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions that I have asked have been answered to my satisfaction. I consent voluntarily to participate as a participant in this research.

Print Name of Participant_____

Signature of Participant _____

Date _____

Day/month/year

Statement by the researcher/person taking consent

This form has been sent to the named participant. To the best of my ability I have made sure that the participant understands that:

1. Information gathered from consultations will be used anonymously in a written report

I confirm that the participant was given an opportunity to ask questions about the use of this information and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this ICF has been provided to the participant.

Print Name of Researcher/person taking the consent_____

Signature of Researcher /person taking the consent_____

Date _____

Day/month/year

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