ReMap

Building Confidence in Movement and Pain

Evaluation Report

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Contents

1. Introduction

1.1 Background

Chronic pain can be defined as pain that has persisted for more than 3 months or that has exceeded the expected time for an injury to heal. Chronic pain can greatly impact many aspects of someone's life, including mobility and physical function, emotional wellbeing, confidence, occupation and social activities, overall quality of life and thus can often become isolating, highlighting the need for social support and appropriate interventions.

Chronic pain is highly prevalent and it has been estimated that around 28 Million adults suffer from Chronic Pain in the UK (Fayaz, Croft, Langford, Donaldson, & Jones, 2016). In 2012 it was reported that 26,632 people on the Isle of Wight were experiencing back pain and in 2017/18 nearly a quarter (23.3%) of the Isle of Wight population reported suffering from a long term musculoskeletal condition, of which 24.5% also reported experiencing anxiety and depression (Public Health England, 2019). This shows the prevalence of chronic pain conditions specifically on the Isle of Wight and the impact such conditions can have on emotional wellbeing.

When pain persists and becomes chronic it can cause physical activity levels to reduce. People experiencing pain can become trapped in a cycle whereby pain has forced a reduction in activity that then leads to deconditioning, as well for some developing a fear of exacerbating pain through increased activity thus maintaining lower levels of physical activity/exercise. However the benefit of exercise for patients with a range of chronic pain conditions has been frequently reported. For example, exercise programmes focusing on strengthening have been found to have a positive effect on patients with chronic lower back pain (CLBP) (Liddle, Baxter, & Gracey, 2004). This finding was supported by more specific research that concluded intensive residential yoga programmes can reduce not only the impact of pain but also anxiety and depression in CLBP patients (Tekur, Nagarathna, Chametcha, Hankey, & Nagendra, 2012). A meta-analysis of 33 relevant studies showed specifically Tai Chi based exercises improved physical performance outcomes for individuals with chronic pain conditions, including 6 minute walking time (Chen, Hunt, Campbell, Peill, & Reid, 2016). A further systematic review and meta-analysis of eighteen randomised control trials for the use of Tai Chi exercises for chronic pain relief also reported positive outcomes for immediate pain relief (Kong et al. 2016).

In more recent years chair-based exercise classes have been developed for those with physical limitations, for example older adults in long-term care (Robinson, Masud, & Hawley-Hague, 2016) or for those who are unable to participate in other, more strenuous forms of exercise (Durutürk, Acar, & Karataş, 2016). Improvements in both mood and cognition in older-adult participants following a chair-based exercise programme have been reported (Robinson, 2016). For people experiencing chronic pain exercise programmes can seem

intimidating or worrying due to fear of causing further pain and thus a chair based approach may be less threatening.

1.2 Project Aim

'ReMap' – Building Confidence in Moving and Pain is a collaborative project set up by Independent Arts, a local charity organisation, and the Isle of Wight NHS Chronic Pain Service. Whilst often chronic pain presentations are highly complex and require the input of a specialist NHS multi-disciplinary team, access to appropriate community movement based social groups may help people to break out of the reduced activity and increased pain cycle that can so easy develop. Additionally an appropriate community group may help individuals to gain social support and maintain progress made on completion of interventions with the Chronic Pain NHS Service.

The ReMap pilot programme was developed for a small group of adults experiencing various chronic pain conditions and included gentle chair-based Tai Chi/Qigong movements, mindfulness exercises and social support.

The aim of the ReMap pilot programme was to primarily improve participant's confidence in moving with pain, but also hoped it may enhance self-management skills, reduce feelings of isolation, facilitate greater acceptance of pain and improve overall wellbeing.

2. Method

The ReMap project began in March 2019 as an initial 12 week pilot programme for a maximum of 10 people. The sessions entailed 1 hour of gentle movements followed by 30 minutes of social time. Fliers were developed by Independent Arts to promote and recruit to the programme (see Appendices 7.1). Ten people started the programme at week 1 but every person did not manage to attend all 12 of the sessions. All people attending the programme were female and between the ages of 55 and 74.

The project sessions were conducted by Nicola Jones, a practitioner who specialises in Tai Chi, Qigong and meditation and has previous experiencing in working with long-term health conditions. The sessions were also monitored by an Assistant Psychologist from the Isle of Wight NHS Chronic Pain Service.

Both quantitative and qualitative data was obtained to evaluate the benefits of the programme using a variety of psychological self-report measures and a patient experience questionnaire.

2.1 Self-report measures

The Chronic Pain Acceptance Questionnaire 8 (CPAQ-8) was developed from the original 20 item CPAQ (McCracken, Vowles & Eccleston, 2004). The CPAQ-8 was later developed and

validated to reduce burden on participants who are asked to complete this measure (Fish, McGuire, Hogan, Morrison & Stewart, 2010). The questionnaire is divided into assessing participant's activities engagement and pain willingness along with their overall pain acceptance. A higher score indicates better chronic pain acceptance.

The Pain Catastrophizing Scale (PCS), developed by Sullivan, Bishop, & Pivik, (1995) is a 20-item self-report questionnaire that assesses a person's thoughts and feeling regarding their chronic pain and how much someone worries about their pain. This measure combines rumination, magnification and helplessness to gain an overall catastrophizing score. A score of 30 or above is considered clinically relevant.

The Pain Self Efficacy Questionnaire (PSEQ) (Nicholas, 1994) is a 10-item questionnaire that assesses a person's confidence in performing activities with chronic pain. The PSEQ covers a range of functions including; socialising, pain without medication, household chores and accomplishing goals. Low scores <20 indicate that a person is more focused on their pain. A higher score indicates greater confidence in movement and stronger self-efficacy beliefs (Tonkin, 2008). Scores can range from 0-60.

The Patient Health Questionnaire 4 (PHQ4) (Löwe et al., 2010) is a brief scale used to measure levels of anxiety and depression. Total scores can range from 0-12. A score of 0-2 indicates a normal level, 3-5 indicates a mild level, 6-8 indicates a moderate level and 9-12 indicates a severe level of anxiety and depression.

2.2 Patient Experience Questionnaire

A Patient Experience Questionnaire (PEQ) that combined a rating scale for feedback on specific questions along with text boxes for qualitative feedback was also collected at the end of the 12 week programme to gain data regarding the patient's experience of the ReMap programme (see appendices 7.2).

3. Results

Complete data sets were obtained from only 5 of the group members and therefore statistical significance cannot be analysed. However preliminary indications will be explored through comparison of the group mean scores at the start and end of the pilot programme.

3.1 Quantitative Data

Whilst interpretations from the data must be considered with caution due to the small sample size the preliminary results from all the self-report measures indicate that improvements were made in psychological wellbeing across the group.

All average scores for each of the outcome measures moved in the required direction. Both chronic pain acceptance as measured by the CPAQ-8 and pain self-efficacy (confidence in movement) as measured by the PSEQ increased overall. Pain catastrophizing as measured by the PCS decreased as did overall anxiety and depression as measured by the PHQ4. Figure 1 displays the average scores at the start and end of the programme.

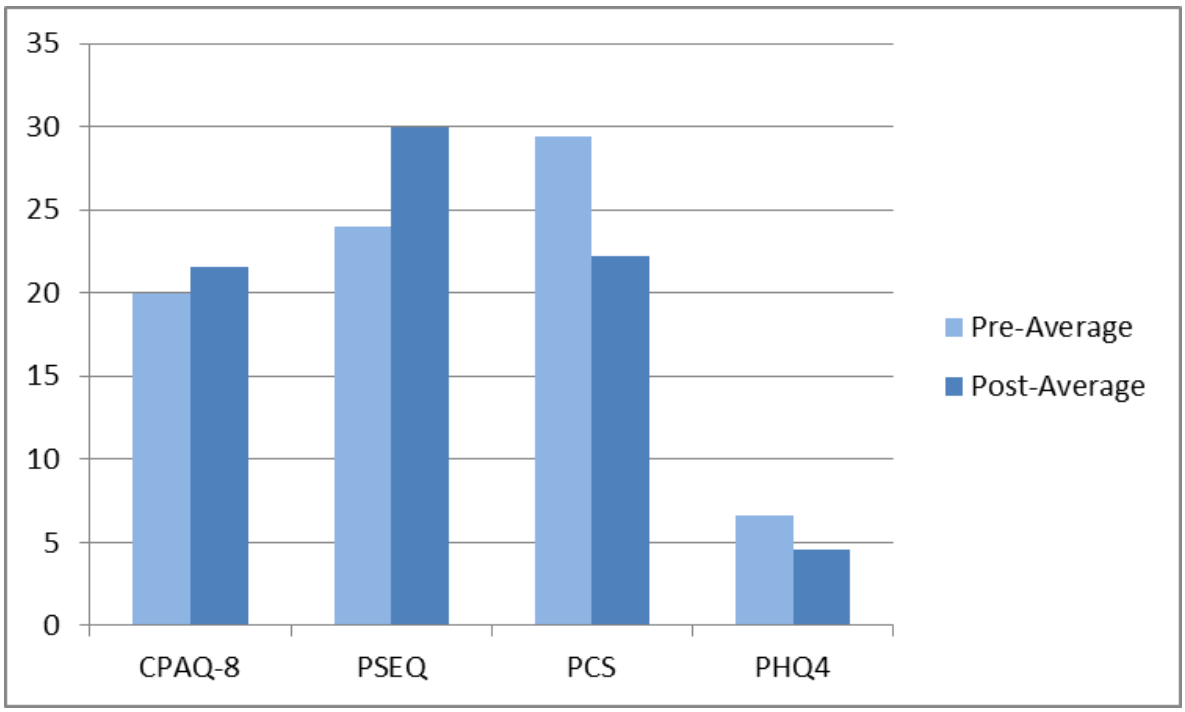

Figure 1: A bar graph showing the average group scores at both pre and post programme.

Detailed descriptive statistics are displayed in tables 1 and 2.

	N	Minimum	Maximum	Mean	Std. Deviation
CPAQ-8 (Pre)	5	17	23	20.00	2.828
PHQ4 (Pre)	5	1	12	6.60	4.037
PCS (pre)	5	9	52	29.40	17.329
PSEQ (Pre)	5	16	31	24.00	6.042

Table 1: Descriptive statistics for all self-report psychological measures taken at the start of the ReMap pilot programme.

	N	Minimum	Maximum	Mean	Std. Deviation
CPAQ-8 (Post)	5	18	24	21.60	2.881
PHQ4 (Post)	5	0	10	4.60	3.578
PCS (Post)	5	0	38	22.20	18.553
PSEQ (Post)	5	18	43	30.00	9.247

Table 2: Descriptive statistics for all self-report psychological measures taken at the end of the ReMap pilot programme.

Data collected from the patient experience questionnaire (PEQ) shows in all cases that people attending the ReMap programme had a positive experience. Individuals reported that they enjoyed the experience of attending the group, felt they were treated with kindness and understanding, felt listened to, had confidence and trust in the people facilitating the group and thought the programme enabled them to feel they could better manage their condition (see Figure 2).

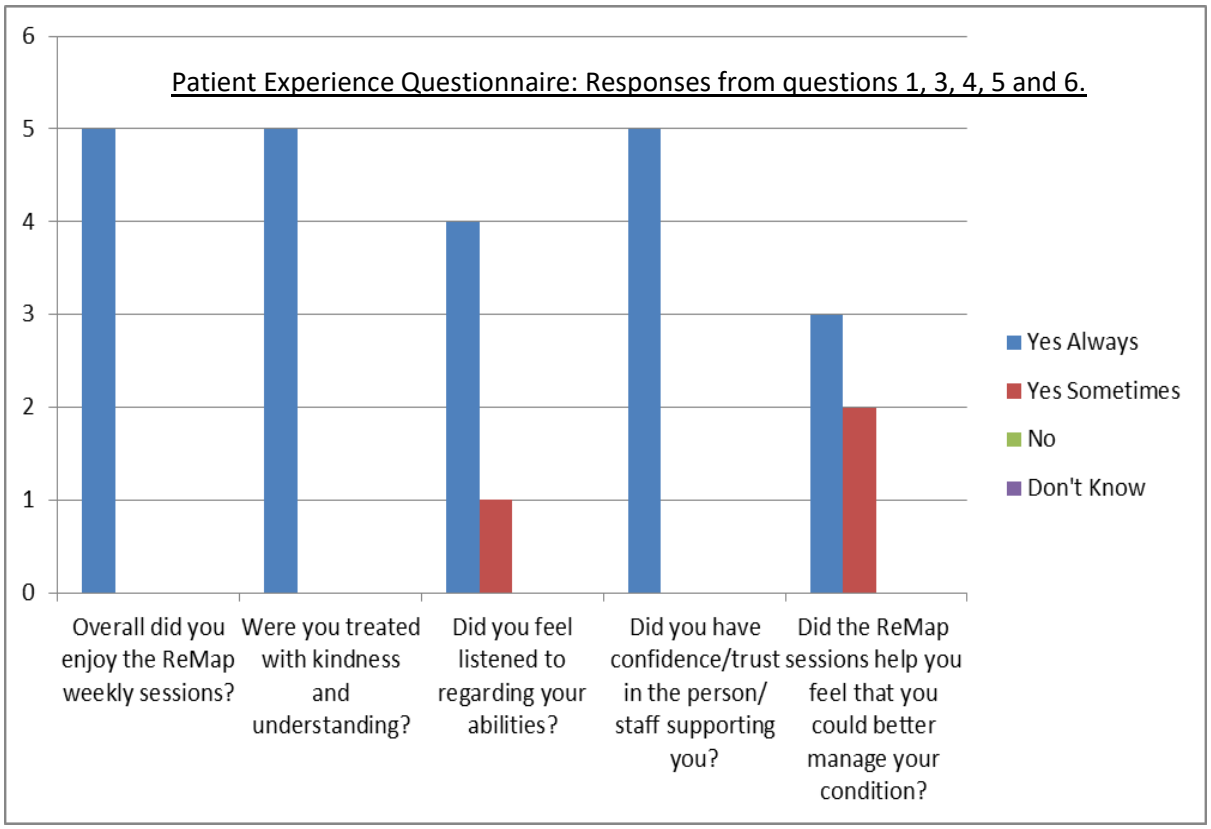

Figure 2: A graph to show the results of questions 1, 3, 4, 5 and 6 of the PEQ.

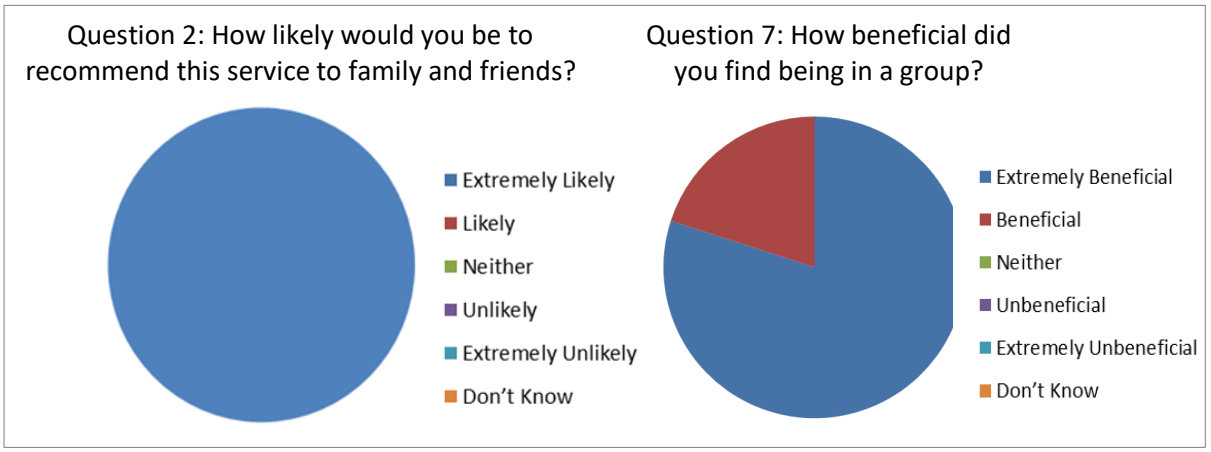

Figure 3: Pie graphs to show the results of question 2 and 7 of the PEQ.

Positive responses were also given to the questions of 'how likely would you be to recommend the programme to family and friends', and 'how beneficial overall individuals found the programme' (see Figure 3).

3.2 Qualitative Data

The qualitative feedback from the PEQ accumulated multiple thoughts, ideas and feelings regarding the ReMap programme and the impact it has had on each individual. The following themes emerged:

- Social Aspect/Shared Understanding
- Learning New Techniques
- Impact on Pain
- Desire to Continue

3.2.1. Social Aspect/Shared Understanding

The most prominent theme from the PEQ showed the ReMap members found being part of a group with others with similar conditions beneficial. Group members appear to have found having a shared understanding of each other's abilities and struggles meant that they were more relaxed, felt at ease and thus benefitted during the social interaction part of the group. This is demonstrated through the following comments:

> *"As well as going to do the purpose of the class it becomes a social event, which in itself makes you feel better"*
> *"I enjoyed the company and the sharing"*
> *"The interaction was good, It felt safe"*
> *"Being with like-minded people in similar circumstances always helps"*
> *"Being with people with similar problems, immediate rapport and understanding"*
> *"Being able to identify with the other ladies and their individual issues"*
> *"Relaxed and friendly environment"*
> *"Being able to chat and laugh in the social time"*

3.2.2. Learning New Techniques

A further theme that emerged from the feedback was that group members felt they had been

able to learn new techniques that they could use to reduce stress and aid relaxation, and to help build confidence with movement. Group members also noted the ease and speed at which they had learn new techniques:

> *"The fact that the reasons on how and why the specific movements work are so helpful"*
> *"The biggest help has been the breathing exercises and different types of meditation"*
> *"I have gone from reluctant to move because of pain to understand that the Qi Gong/Tai Chi movement can help"*
> *"The correct breathing and posture"*
> *"That despite health and mental health issues plus living with chronic pain, that there is a light at the end of the tunnel, we can learn to live with our pain and enjoy life"*
> *"I now practice daily rotational breathing at home"*
> *In a short space of time she has taught us a lot"*

3.2.3. Impact on Pain

A positive theme emerged in relation to the overall benefit group members reported about their experience of pain. Group members noted their ability to cope better with their pain thus suggesting a psychological shift towards acceptance. Group members also reported the benefit of having skills to cope with the stress that can emanate from living with chronic pain thus again helping them to cope with pain:

> *"Certainly helped me relax and help posture"*
> *"The sessions were greatly beneficial"*
> *"We can control the pain and not let the pain control us and our lives"*
> *"Feeling more relaxed afterwards"*
> *"The type of exercises etc. we did felt right for me at this stage"*
> *"Each week I have been more motivated to move more"*
> *"I still have pain but the class has enabled me to cope with it better"*
> *"I now practice rotational breathing at home, it helps me manage the stress response to pain and it is in no doubt (in my mind at least) a game changer"*
> *"This course has given me tools that really work"*

3.2.4. Desire to Continue

Many of the group members openly expressed their hope and desire for the group to continue to further assist the self-management of their chronic pain conditions:

"Sincerely hope the ReMap can continue"
"The course has given me tools that really work and I am hoping it will continue so I can go on making significant progress towards a better quality of life"

4. Discussion

The results from the ReMap pilot group demonstrate improvements in psychological wellbeing and are supported by the reported experiences of the group members. The positive themes that materialised from the responses collated suggest that there were a number of benefits. Group members found the group itself supportive and enjoyed the social time allocated at the end of each session. By being part of a group, members appeared to enjoy a connectedness which can reduce a sense of isolation often felt when living with a long term chronic pain condition (Cacioppo & Cacioppo, 2014). The sense of connectedness may account for the desire for the group to continue reported by its members but also may have enabled members to engage with the content of the programme (i.e. increasing confidence of moving with pain).

In order for people to live well alongside their chronic pain condition emphasis is placed on developing self-management skills. Having access to appropriate supportive groups that combine learning and skills development is important to self-management. Group members emphasised the amount (of skills) they had learnt through participating in the group and the impact this has had on their experience of pain. The group also felt the skills learnt were transferable and easy to continue outside of the programme thus enhancing the self-management approach.

Fear and worry about pain can lead to individuals reducing or indeed avoiding physical activity (Crombez, Vlaeyen, Heuts & Lysens, 1999). With good evidence to support the use of activity and exercise in reducing chronic pain (e.g. Liddle, Baxter, & Gracey, 2004) it is important to address anxiety about pain that may prevent an individual from participating in activity. Smeets, Vlaeyen, Kester and Knottnerus (2006) found that a reduction in pain catastrophizing reduced both perceived disability and pain intensity among chronic pain patients. Levels of anxiety in relation to pain as measured by the PCS decreased after the programme.

A reduction in worry or fear about pain can also lead to a greater willingness to engage in activity. At the end of the programme group members showed improved confidence in moving as measured by the PSEQ. This increased confidence may also be related to the connectedness members felt towards each other and thus willingness to participate in the programme but also may be related to the trust and confidence felt towards the class

instructor. Comments from the patient experience questionnaire noted the benefit of having a "calm and caring teacher" who understands their conditions and their limitations and found this a great support and motivation.

Acceptance towards pain is a fundamental starting point for people learning to manage a chronic condition. Acceptance is a process which enables a person to start living alongside their condition rather than trying to cure or get rid of it (McCracken, 1998). Evidence has shown that acceptance is required in order for a person to engage in maintenance of their life activities (Kranz, Bollinger & Nilges, 2010).The group scores as measured by the CPAQ-8 show the ReMap group members to move towards greater acceptance of chronic pain.

More generally it has been shown that high levels of anxiety and depression can exacerbate the experience of pain (Lerman, Rudich, Brill, Shalev & Shahar, 2015). Anxiety and depression are thought to amplify the intensity of pain (Von Korff & Simon, 1996) and thus methods for reducing depression and anxiety are important for chronic pain management. At the end of the programme the group members reported less anxiety and depression as measured by the PHQ4.

5. Summary

In summary, the patient experience questionnaire comments encapsulate the positive effect the ReMap group had on its members over the pilot programme. The responses demonstrate how being in a group with other people with similar conditions can combat feelings of isolation that living with chronic pain can bring. A shared identity and social support can indeed lead to a greater willingness to engage in increased activity (e.g. Subramaniam, Stewart & Smith, 1999). Thus the social aspect (and sense of connectedness) of the ReMap group appears to be vitally important enabling people to engage with the learning and skills development of the programme.

Whilst this report is based on the findings from a small group and therefore the significance of the results cannot be concluded, the preliminary positive indications should not be dismissed. Overall, the ReMap group has been valued by the group members attending and thus has the potential to be a beneficial intervention for some individuals living with chronic pain on the Isle of Wight.

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7. Appendices

Appendix 7.1: The Independent Arts flier used to promote and recruit to the programme.

ReMap
independent arts

Building Confidence in Movement and Pain

ReMap is a new project using movement and mindfulness to help people living with chronic pain.

Sessions take place on Wednesday afternoon from 2pm—3.30pm at Quay Street Methodist Church, Quay Street, Newport, PO30 5EB.

Sessions are free and refreshments are provided.

For more information and to book your place please telephone Independent Arts on 01983 822437

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Charity Number 297474

Appendix 7.2: Patient Experience Questionnaire (PEQ).

ReMap- Building Confidence in Movement and Pain: Participant Experience Questionnaire

1. Overall did you enjoy the ReMap weekly sessions?

Yes always	Yes sometimes	No	Don't know

2. How likely would you be to recommend this service to family and friends?

Extremely Likely	Likely	Neither Likely or Unlikely	Unlikely	Extremely Unlikely	Don't Know

3. Were you treated with kindness and understanding?

Yes always	Yes sometimes	No	Don't know

4. Did you feel listened to regarding your abilities?

Yes always	Yes sometimes	No	Don't know

5. Did you have confidence / trust in the person / staff supporting you?

Yes always	Yes sometimes	No	Don't know

6. Did the ReMap sessions help you to feel that you could better manage your condition?

Yes always	Yes sometimes	No	Don't know

7. How beneficial did you find being in a Group?

Extremely Beneficial	Beneficial	Neither	Unbeneficial	Extremely Unbeneficial	Don't Know

8. What did you enjoy about being in a group?

PTO

9. If there was one thing you found most helpful from the ReMap sessions? What was that?

10. Do you have any other comments you would like to share about your experience of ReMap?

11. Are you?

Male	
Female	

Date	

10. What is your age range?

18-34	
35-54	
55-74	
75+	

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