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MDR THERAPY FOR PAIN MANAGEMENT: A PRELIMINARY REPORT ON THE EFFICACY OF SELF-TREATMENT WITH OR WITHOUT PHARMACOTHERAPY

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Abstract

The therapeutic efficacy of MDR therapy interventions for chronic pain from varied causes in adults attending a brief two-day group program, was investigated. Three males and five females aged 31 to 56 years diagnosed with chronic unrelieved pain, were referred for participation in the trial by general medical practitioners in Perth, Western Australia. The Visual Analogue Scale for pain rating was utilised at pre- and post-treatment and at 2 weeks following the trial. Post-treatment results indicated a clinically and statistically significant reduction in pain severity, accompanied by return-to-role.

Introduction

Chronic unmanaged pain affects approximately 20% of the population of Australia, restricting quality of life, productivity and range of choices. The estimated cost of severe unrelieved pain to the public health system in Australia is presently in excess of $10 billion per annum[1].

Dependent upon pain aetiology, a wide variety of pharmacological approaches have been employed with considerable success.[1] Non-pharmacological methods have not to date produced statistically significant or enduring results. Transcutaneous electrical nerve stimulation (TENS) has been shown in 15 out of 17 randomised controlled trials to have no benefit compared to placebo. [1,2] Hydrotherapy for chronic lower back pain, while providing evidence of short-term effect in the range of a 50% reduction in reported pain, showed a return to pre-program pain levels at three-month follow-up.[3] Trends in psychotherapy research and in pain research suggest that rather than there being a standardised psychotherapeutic or pharmacological 'magic bullet' intervention, it is the quality of the therapeutic alliance as assessed

subjectively by the client, that is the most significant variable in the determination of treatment outcome[4]. Involving the client in therapeutic decision-making and self-administering treatment is a means of building therapeutic alliance that has been found to have clinical merit [1,4,5].

The aim of the present study was to investigate the efficacy of a self-treatment program for chronic unrelieved pain which trained participants in self-administering MDR therapy techniques.

Hypothesis

There will be a clinically and statistically significant post-treatment reduction in the magnitude of adults' chronic pain scores using the Visual Analogue Scale (VAS), and evidence of return to role where pain had previously been disabling.

Participants will also be asked to complete a VAS, at six and twelve-month follow-up and this will be reported subsequently.

Method

Three males (Mean age = 36.0 years) and five females (Mean age = 53.2 years) reporting chronic unrelieved pain, from metropolitan and regional Western Australia participated in the trial. Severe unrelieved pain is not typically associated with rapid spontaneous remission without pharmacotherapy, which implies that a statistically significant reduction in pain severity was plausibly due to the intervention.

While the sample size was small, this was not deemed to be a problem given that the treatment was expected to have a large effect.

Information about the trial was provided to the public through local newspaper articles and radio coverage. Inquiring members of the public were sent information/referral packs/consent forms to take to their referring medical practitioner.

The criterion for participation was a written diagnosis of unrelieved chronic pain, in the moderate to severe clinical range (such that the person was unable to fulfill role requirements: vocational or personal), from a state registered medical practitioner. Additional criteria were that the patient must have attempted at least two conventional pain treatments, without satisfactory amelioration of pain, and that psychosis or generalised anxiety disorder were not present.

Every person who met the criteria was accepted for the trial. Types of chronic pain were varied: old whiplash injuries, degenerated vertebrae or femur, pain associated with sport injury and chronic fatigue syndrome, and neuropathic pain associated with paraplegia.

The purpose of the trial was to test the efficacy of MDR therapy interventions. This is a relatively new approach to the treatment of physical pain. In this case, MDR therapy intervention is utilised to disrupt the reconsolidation of conditioned states associated with pain signalling.

Instrument

Visual Analogue Scale (VAS)

The VAS is a 10-point linear scale that estimates a score/rating for reported pain. This scale has been used extensively in clinical trials of pharmacotherapeutic medications for depression and is the standard instrument for pain measurement in research and clinical settings. It was originally adapted from Wolpe[6] as described in Shapiro[7]. It has been shown to correlate with other physiological stress measures[8]. This 10 point scale uses 10 as the highest level of discomfort and O as the lowest level, or absence of distress. An absence of reported pain is considered an indicator of recovery[9].

Procedure

Patients completed a VAS rating at pre- and post-treatment. This evaluation procedure will be repeated at six-month and 12-month intervals and reported elsewhere.

Participants were taught over two days (5 hours daily, with 1 hour of free time for lunch break, and brief refreshment breaks morning and afternoon) how to self-administer MDR therapy interventions.

Where multiple sources of pain were present, participants were instructed to work on a single source, rather than disperse any effect over a wider range of pain targets.

Consistent with NH&MRC guidelines, participants signed consent forms which advised them of the purpose of the trial and their rights to withdraw their participation at any stage, without supplying a reason and without penalty.

Results

Following the two days of the group training program, results indicated reduced levels of reported pain amongst all eight participants. Three of the participants reported zero (null) score on the targetted pain.

At 2-week follow-up, results were further improved, with 5 participants reporting zero or minor pain (1 or 2 on the VAS).

Table 1 shows pre- and post-treatment mean scores, standard deviations and mean standard errors for the rating scale employed in the trial.

Table 1. Pre and Post-treatment Score Means, Standard Deviations, Mean Standard Errors on Symptom Measures

	Mean	Standard Deviation	Mean Standard Error
VAS			
pre-treatment	5.9	2.2	0.77
post-treatment	2.4	2.4	0.85

Note. N=8. VAS = Visual Analogue Scale

A two-tailed t-test indicated that following participation in the 2-day group training program, there was a statistically significant reduction in participants' scores on the Visual Analogue Scale ($t = 5.65$, $p<.001$).

We note that a probability rating (ie, probability that the results are due to random chance) of <.001 is almost unheard of in medical trials, giving a degree of confidence in the hypothesis of 99.9%.

Discussion

Preliminary findings indicate that the treatment program was associated with a clinically and statistically significant reduction in pain severity, as indexed by the VAS. Further improvement was noted in the follow-up at two weeks. Six and 12 month follow-up data will be analysed to monitor the maintenance of gains observed and will be reported separately. These results provide qualified support for the efficacy of MDR-type psychotherapies delivered in a group treatment format.

Though promising, the absence of other independent group therapy research using MDR therapy treatments warrants replication of the results reported, with similarly experienced therapists and methodology to differentiate potential therapist or history effects. Notwithstanding these cautions, the current findings are consistent with anecdotal clinical evidence from the last six years.

The present study found that a custom designed program for chronic pain management based on MDR therapy treatments did facilitate large magnitude reductions in pain severity. As such, it has significant implications for the management of an illness that has major individual and social costs.

Addendum

At 2-year follow up only 4 of the 8 trial participants were contactable. Of those 4, 1 reported no pain whatsoever (from VAS 7 at pre-trial), 1 reported only occasional soreness (pre-trial VAS 3 accompanied by painful full body "locking" on waking each day), 1 reported sustained lowered pain (from a VAS of 9 pre-trial, to 3-4 at 2-year follow up) and 1 was regularly attending a chiropractor for high-velocity neck manipulation and reported increased pain after each visit to the chiropractor, but could not be persuaded to cease utilizing the chiropractor.

In such a small sample size it may well be that the 4 participants who could not be contacted had no such result. However we have a commitment to track the data from future chronic pain clients in order to keep measuring efficacy.

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