Development and Analysis of ACT/RFT-informed Group & Brief 1 to 1 Interventions for a Rheumatology Population

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Introduction

In this population:

- Psychiatric comorbidities are common in patients living with rheumatological conditions and are associated with poorer health outcomes and treatment response[1].
- The evidence base for psychological intervention is scarce and of poor quality.
- Psychological inflexibility has been shown to be associated with poorer function and psychological wellbeing.
- No studies have examined the effects of contextual-based interventions.

Aims of study

- To develop and pilot I) a 6-week group and II) a brief (up to 6 sessions) one to one intervention based on Acceptance and Commitment Therapy (ACT)/Relational frame theory (RFT) in a rheumatology population.
- To evaluate outcomes using patient satisfaction data, qualitative feedback and quantitative outcomes using a range of questionnaires measuring mood, quality of life and psychological flexibility.

Methods

Patients attending a rheumatology psychology service received either group OR brief one to one intervention:

Group intervention: 3 hours per week for 6 weeks. Content: mindfulness, movement sessions, moving from control agenda to values-based behaviour, experiential exercises targeting defusion and acceptance, group discussion including education, and assigned home practice.

Brief intervention: up to six 50-minute sessions of one to one individualised ACT/RFT-based therapy.

Outcome measures: PHQ-9, GAD-7, compACT, and Brief Pain Inventory (BPI)– interference and a satisfaction questionnaire with open questions inviting qualitative responses.

Data analysis: Paired t-tests were conducted, and the Jacobson and Truax method used to calculate Reliable Change Index and Clinically Significant Change criteria. Criterion b was used for PHQ-9 and GAD-7 and criterion c for compACT and BPI. One participant had GAD-7 score lower than cut-off for minimal symptoms at baseline so these data were excluded from analysis.

Effect sizes were calculated using Cohens' d. For comparison (Figure 2) , published data in chronic pain populations were used. Depression and anxiety effect sizes were sourced from published metaanalyses[2] and psychological flexibility and pain disability effect sizes from an RCT from a comparable group intervention[3].

Characteristics	Group (n=8)	Brief 1 to 1 (n=10)
Age years (SD)	45 (13.6)	43 (14.1)
Gender %F (n)	75% (6)	70% (7)
% chronic pain syndrome (n)	100% (8)	70% (7)
% inflammatory condition (n)	38% (3)	50% (5)
No. sessions attended (median, range)	5.5 (4-6)	6 (2-6)

Table 1: Demographics

Results:

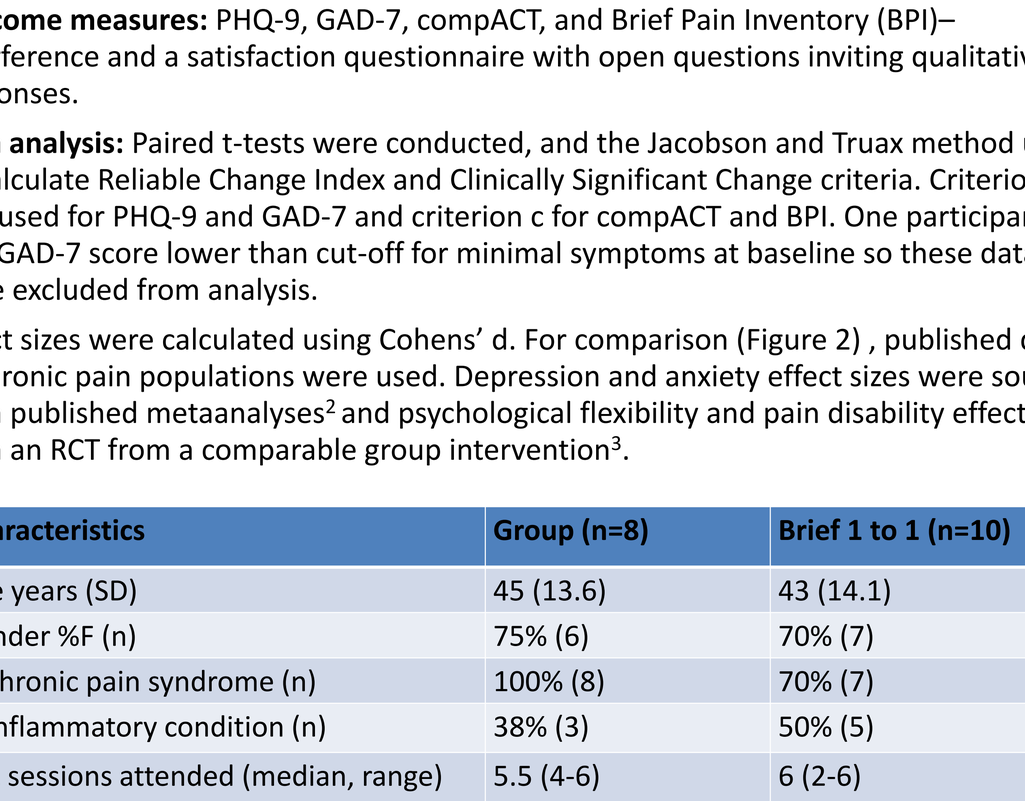

Figure 1. How participants rated the therapy and their progress

Characteristics	Pre Mean (SD)	Post Mean (SD)	P Value	Reliable change	Clinically significant change
Group intervention (n=8)					
PHQ-9	16.9 (2.7)	13.1 (3.4)	0.006**	38% (3/8)	13% (1/7)
GAD-7 (n=7)	13.4 (5.6)	9.9 (4.0)	0.071	43% (3/7)	29% (2/7)
BPI interference	6.63 (1.2)	5.55 (1.2)	0.108	63% (5/8)	38% (3/8)
compACT	54.4 (8.9)	65.3 (11.4)	0.013*	63% (5/8)	13% (1/8)
Brief one to one intervention					
PHQ-9 (n=9)	14.9 (4.9)	9.3 (3.9)	0.003**	56% (5/9)	45% (4/9)
GAD-7 (n=9)	13.6 (4.5)	6.4 (4.2)	0.003**	78% (7/9)	56% (7/9)
BPI interference (n=7)	6.87 (2.2)	5.01 (1.5)	0.039*	71% (5/7) ^	43% (3/7)
compACT (n=6)	58.8 (18.3)	83.2 (11.6)	0.005***	71% (5/7)	71% (5/7)

Table 2. Outcome measures pre and post intervention: *p<0.05, **p<0.01,
^one patient deteriorated but this did not reach clinical significance

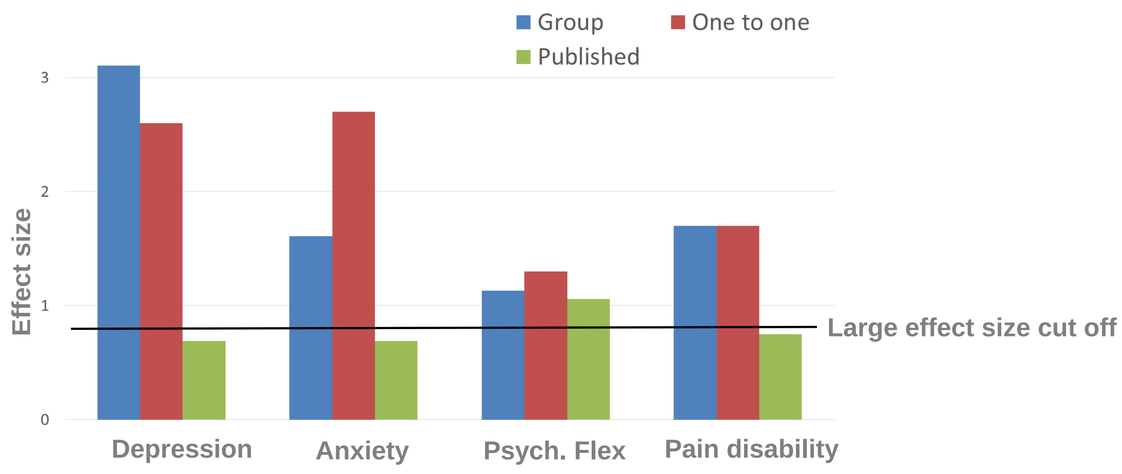

Figure 2. Effect sizes compared with published data.

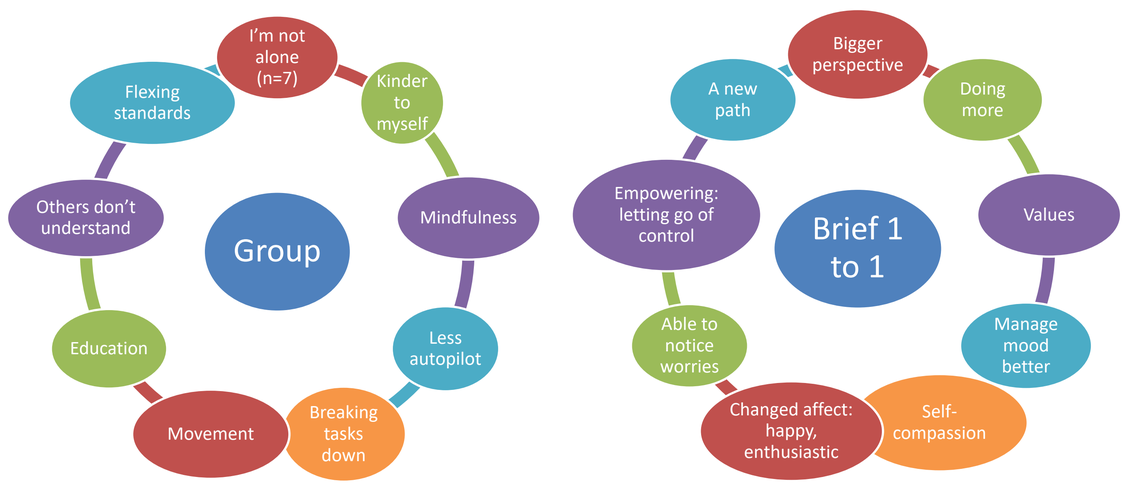

Figure 3. What people said was helpful/they took from the therapy

Discussion

In this sample of rheumatology patients, trends suggest:

Patients responded well to ACT/RFT-based interventions: with improvements in mood, psychological flexibility and quality of life. Overall effect sizes were large and compared favourably to published trials in chronic pain populations.

Brief one to one intervention was more effective than a group: those who had group therapy showed smaller improvements in outcome measures, rated themselves as less improved and were less satisfied with their therapy than those that received up to 6 sessions of individualised therapy.

Focus of one to one and group work differed: The author (LME) who delivered both interventions reflects that, compared with group, the content of brief intervention was rarely around symptoms and more likely to address issues such as relationship difficulties, self-esteem, interpersonal behaviours and adjustment. In addition, in one to one sessions, there were higher levels of expressed affect and proportionally more time spent on experiential work, including exposure to feared memories, thoughts, feelings and body sensations and perspective-taking. Group content often reflected themes of feeling misunderstood, with group participants more likely to report gaining social connection rather than psychological skills. Whilst participants report this as helpful, alone it is unlikely to induce clinical change and it is possible that group processes could reinforce unhelpful fusion and maladaptive interpersonal behaviours. Extensive research has been done into group interventions in pain populations, this study suggests further research should focus on efficacy of short, targeted one to one interventions.

Limitations: this is a small sample size and lack of randomisation limits direct comparison between treatments.

Conclusion: A brief one to one intervention of up to 6 sessions of contextual-based therapy conferred good benefit for a rheumatology population and outperformed group therapy. More studies are needed to understand whether this effect is generalisable and longer-term outcomes.

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