Journal of Contextual Behavioral Science 37 (2025) 100914

Contents lists available at ScienceDirect

Journal of Contextual Behavioral Science

journal homepage: www.elsevier.com/locate/jcbs

Patient-reported unwanted events and deterioration rates during acceptance and commitment therapy: A brief report of group therapy for fibromyalgia

Marie-Louise Henning Ottergård [a], Linea Pretzmann [b,c], Tobias Lundgren [d], Lance McCracken [e], Monica Buhrman [e], Peter Molander [f,g], Alexander Rozental [d,h,*]

[a] Sophiahemmet Rehab Center Stockholm, Sweden
[b] Child and Adolescent Mental Health Center, Copenhagen University Hospital – Mental Health Services, Denmark
[c] Department of Clinical Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Denmark
[d] Centre for Psychiatry Research, Department of Clinical Neuroscience, Karolinska Institutet, Sweden
[e] Department of Psychology, Uppsala University, Sweden
[f] Department of Behavioural Sciences and Learning, Linköping University, Sweden
[g] Pain and Rehabilitation Centre, Department of Health, Medicine and Caring Sciences, Linköping University, Linköping, Sweden
[h] Department of Health, Education and Technology, Luleå University of Technology, Sweden

ARTICLE INFO

Keywords:
Acceptance and commitment therapy
Fibromyalgia
Unwanted events
Deterioration

ABSTRACT

Fibromyalgia is a type of generalized chronic pain condition that causes physical tenderness, fatigue, sleep disturbance, cognitive impairment, and comorbid psychiatric symptoms. Medication and psychotherapy can offer some relief. Acceptance and Commitment Therapy (ACT) is a current treatment approach that focuses on fostering acceptance of symptoms and engagement in meaningful, value-driven activities. However, no systematic attempts at investigating unwanted events and deterioration have been made in relation to ACT for fibromyalgia. This brief report presents findings on the occurrence of characteristics of such incidents in a group-based ACT-treatment at a specialized pain clinic. Among the 94 patients included, deterioration rates were generally low across most outcome measures. Unwanted events were monitored using the 32-item Negative Effects Questionnaire, a self-report measure covering symptoms, treatment quality, dependency, stigma, hopelessness, and failure. A total of 37.6 % reported having experienced unwanted events during the treatment period, and 43.2 % at post-treatment. Among the most frequently occurring unwanted events reported at post-treatment were "Unpleasant memories resurfaced" (12.7 %), "I experienced more unpleasant feelings" (9.9 %), and "I feel like I am under more stress" (8.3 %). However, unwanted events reported during treatment were not related to treatment outcome. The results point to the importance of monitoring unwanted events during treatment, although these experiences may not interfere with benefits participants obtain, and, presumably, may be part of the theorized change process. Further research is warranted to understand how unwanted events and deterioration might affect adherence and dropout.

1. Introduction

Fibromyalgia is a chronic, generalized musculoskeletal pain condition that also includes physical tenderness, fatigue, sleep disturbance, cognitive impairment, and comorbid psychiatric symptoms (Hauser et al., 2015). Fibromyalgia has a mean global prevalence rate of 2.7 %, and although it is persistent in nature, medication and psychotherapy can provide some relief (Sarzi-Puttini et al., 2020). Acceptance and Commitment Therapy (ACT) has previously demonstrated promising results in one recent meta-analysis, with between-group effect sizes of Hedge's *g* 1.05 for pain, 0.81 for depression, and 0.89 for anxiety, compared to controls (Eastwood & Godfrey, 2024).

However, when it comes to psychotherapy in general some patients also report negative experiences (Vybiral et al., 2024), consisting of unforeseen and undesirable effects of a properly executed treatment: *"Any UE [Unwanted Event] that is probably caused by correct treatment"*

* Corresponding author. Luleå University of Technology Department of Health, Education and Technology, Laboratorievägen 14, 971 87, Luleå, Sweden.
E-mail address: alexander.rozental@ki.se (A. Rozental).

https://doi.org/10.1016/j.jcbs.2025.100914
Received 15 January 2025; Received in revised form 26 May 2025; Accepted 9 June 2025
Available online 10 June 2025
2212-1447/© 2025 The Authors. Published by Elsevier Inc. on behalf of Association for Contextual Behavioral Science. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

(Linden, 2013, p. 288). Depending on how UE are conceptualized, these might include emotions (e.g., shame), cognitions (e.g., thoughts of failure), physiology (e.g., anxious trembling), or interpersonal aspects (e.g., stigma or changes in partner or family relationships). Such events can be explored via self-report measures, clinical interviews, or checklists (for a more detailed review, see: Klatte, Strauss, Fluckiger, Farber, & Rosendahl, 2023). Yet, providing a clear description of the characteristics and reliable estimates on the occurrence of UE in psychotherapy is difficult as it largely depends on how they are defined, what type of assessment is used, what patients are included, and the form of treatment being provided, which creates great heterogeneity in the literature (Jeckel et al., 2024). Klatte, Strauss, Fluckiger, and Rosendahl (2023) performed a systematic review on the topic, indicating that only 60 % of the 85 included randomized controlled trials had investigated UE (none involving ACT), with one in ten patients being expected to experience these events in treatment. Meanwhile, to the knowledge of the authors, only two studies have specifically investigated UE in ACT. Richter et al. (2024) probed 92 patients receiving treatment for mainly anxiety disorders and depression at an outpatient psychiatric hospital, with 45.1 % having experienced at least one UE, defined as endorsing any item on the Inventory for the Assessment of Negative Effects of Psychotherapy (Ladwig et al., 2014). Similarly, using the same self-report measure, Holsting et al. (2017) found rates of 31 % among patients with functional somatic syndromes. However, while UE do seem to occur in ACT as well as other forms of psychotherapy, their relationship with treatment and its outcome is still not well understood, and if transient, might not necessarily be considered harmful for the patient (Rozental et al., 2018).

In addition, deterioration, i.e., a negative change in symptoms on self-report measures, is regarded as a more direct form of negative effect in treatment (Lutz et al., 2021). Deterioration is usually defined as a reliable change in a negative direction, as determined using the Reliable Change Index (RCI; Wise, 2004). Compared to the study of UE, deterioration is more often monitored and reported in clinical trials, which allows better estimates of its incidence in both treatment and control conditions (Jeckel et al., 2024). Although the number of patients deteriorating varies between studies, systematic reviews generally point to a deterioration rate in psychotherapy of 5–10 % (Lutz et al., 2021), while significantly more patients seem to deteriorate in control conditions (Cuijpers et al., 2018; Rozental et al., 2017).

For generalized pain conditions like fibromyalgia, the literature on UE and deterioration is even more limited. A systematic review of ACT stated that *"No studies reported adverse events relating to the ACT intervention"* (Eastwood & Godfrey, 2024, p. 251). However, on further examination of the included clinical trials, there is relatively little attention devoted, and minimal information provided; one study employed open-ended questions while others did not describe the exact procedure for determining deterioration or UE. The only exception was Catella et al. (2024), who "queried" UE, and reported that there *"were zero (0) AEs* [Adverse Events] *attributed to either treatment"* (p. 33), and no deterioration (in depression).

Since UE and deterioration are likely to occur in psychotherapy it is important to assess their occurrences and features in different populations, settings, and treatment methods. This is particularly important for conditions where psychotherapy is one of few available treatments and where very little is known about UE and deterioration, such as ACT for fibromyalgia. Furthermore, some patients receiving ACT for fibromyalgia report that certain interventions in treatment can be particularly distressing. This includes exposing yourself to physical activity as part of valued-directed behavioral activation, and experiential exercises that requires you to confront feelings, thoughts, and memories, such as creative hopelessness (Bendelin et al., 2020). Some patients may also find it unsettling to embrace acceptance towards living with a chronic condition (Casey et al., 2019). As these experiences might interfere with treatment and affect outcomes, studying UE specifically in ACT is warranted. This study therefore aimed to determine UE and deterioration rates among patients receiving psychotherapy for fibromyalgia, i.e., a group treatment based on ACT. The research questions were: 1) by using self-reports, what is the proportion and characteristics of UE experienced by the patients? 2) What is the rate of deterioration on different outcome measures, as assessed by the RCI for a negative pre-to post--treatment change? 3) Is there an association between self-reported UE and treatment outcome?

2. Method

2.1. Participants

Adult patients were diagnosed with fibromyalgia by a medical doctor specialized in pain, in accordance with the American College of Rheumatology criteria (Wolfe et al., 2010). They were then referred to a specialist pain clinic in Stockholm, Sweden. If deemed to have the capacity to attend psychotherapy, patients were provided a 10-week group treatment based on ACT, developed at Karolinska Institutet (Wicksell et al., 2013), see Table 1 for an overview (for detailed information, please contact the first author). Exclusion criteria were planned or ongoing medical assessment and treatment, or a condition that was expected to interfere with treatment, as assessed by a therapist, e.g., severe anxiety or depression, suicidal ideation and self-harm, substance abuse, or psychosis. All patients were assessed according to the clinic's routines, which consisted of taking a medical history (e.g., social situation, occupational circumstances, and physical health status), and sections from the MINI International Neuropsychiatric Interview (Sheehan et al., 1998). No other measures were used to determine eligibility since patients had already been referred to the clinic. Since this study was performed in routine care, details on the overall pool of patients possible to remit to the specialist pain clinic or what patients refused treatment is not available.

Treatment consisted of 10 group sessions, 2 h each, and one individual session. Two therapists provided the treatment; one licensed psychologist with 12 years of experience working with ACT for generalized chronic pain conditions, and one licensed nurse specialized in pain and with 29 years of clinical experience.

The participants were exclusively recruited for the aforementioned aims of investigating UE and deterioration. No other studies using the

Table 1
Overview of treatment sessions*.

Phase	Content
1 (session 1)	Preparation for behavioral change: The dysfunctional nature of long-standing pain syndromes was addressed to reframe the context of pain avoidance and promote a shift in focus from symptom reduction to living in accordance with personal values
2 (session 2–3)	Shifting perspectives: Clarifying individual life values, combined with an exercise that involved a thorough evaluation of the workability of previous strategies used to reduce pain and improve functioning. The discussion of values and past strategies aimed to highlight the possibility of enhancing functioning and quality of life by accepting a certain level of pain and distress
3 (session 4–5)	Acceptance and cognitive defusion: Emphasized the value of cultivating a more flexible behavioral repertoire in relation to pain and distress. Participants were encouraged to acknowledge and remain open to unpleasant internal experiences when doing so aligned with their personal values. Illustrations and metaphors were frequently used to clarify key concepts such as psychological flexibility. In-session exercises involving exposure to pain and distress offered opportunities for direct experiential learning
4 (session 6–10)	Value-directed behavioral activation: Short- and long-term behavioral goals were established based on identified life values, followed by discussions on how to gradually reintroduce previously avoided activities. This phase also included a summary of the treatment content and establishing a maintenance plan

* Patients practiced acceptance and defusion strategies and exposure exercises both during in-session exercises and through homework assignments completed between sessions.

same data will be conducted.

2.2. Measures

The primary outcome was the Negative Effects Questionnaire (NEQ; Rozental et al., 2016), consisting of 32 items probing for UE, e.g., "I experienced more hopelessness" (item 6) (download: https://osf.io/f4qma/). The NEQ was originally developed based on a literature review, patient self-reports, and by consulting researchers and clinicians (Rozental et al., 2016), and consist of the factors symptoms, quality, dependency, stigma, hopelessness, and failure. The NEQ has been tested using both classical and modern test theory approaches on data from clinical trials and surveys (Rozental et al., 2019), and is one of the most widely used measures on UE (Jeckel et al., 2024). Patients scored whether they had experienced each of the 32 UE, to what degree they were negatively impacted by them (0–4), and whether they attributed them to treatment or other circumstances (only treatment-related incidents were analysed in this study). In this study, the NEQ had an internal consistency Cronbach's α 0.95. Patients completed the NEQ at session 4 as it marked the introduction of creative hopelessness, and then at post-treatment. For session 4, the items were rephrased to present tense.

Demographics and the secondary outcomes were symptom self-report measures administered as part of the Swedish National Registry for Pain Rehabilitation (https://www.ucr.uu.se/nrs/) (Fischer et al., 2020), completed at pre- and post-treatment. These were not selected exclusively for this study but are part or routine care at all specialized pain clinics in Sweden. The self-report measures consisted of Swedish versions of the EQ5D-3L (VAS and Index) (Rabin & de Charro, 2001), Hospital Anxiety and Depression Scale (Lisspers et al., 1997), Multidimensional Pain Inventory (Bergström et al., 1998), RAND-36 (Orwelius et al., 2017), Pain Catastrophizing Scale (Kemani et al., 2019), and Insomnia Severity Index (Dragioti et al., 2015). Internal consistencies for this study can be found in Table 5.

2.3. Procedure

Patients were informed about the study and provided written informed consent prior to treatment. Since demographics and all secondary outcomes are collected in accordance with the Swedish National Registry for Pain Rehabilitation, the only change in procedure was the addition of the NEQ.

2.4. Statistical analysis

Data was analysed using jamovi (Jamovi Project, 2024). Apart from descriptive statistics, change on the NEQ and all secondary outcomes were analysed using two-sided paired samples *t*-tests, or Wilcoxon Signed Rank Test if non-normally distributed. Results are presented as mean changes from pre-to post-treatment, and standardized effect sizes Cohen's *d* with 95 % Confidence Intervals (CI). The relationship between UE and secondary outcomes were analysed using Spearman ρ. Deterioration was determined using the RCI >1.96, i.e., reliable deterioration, $p < .05$ (Wise, 2004). All analyses were made on a complete case basis, i.e., list-wise deletion. To account for the family-wise error rate, Bonferroni-correction was utilized, with $p = .05/36$ (i.e., $p = .001$) indicating statistical significance.

3. Results

3.1. Overall treatment results

In total, 98 patients were offered treatment at the specialist pain clinic. However, four patients dropped out due to time constraints, medical reasons, or declined to participate in the group format and therefore did not complete the measures. Thus, the final sample consisted of 94 patients who each took part in one of a series of seven different episodes of treatment and consented to participate in this study (see Table 2 for demographics). All secondary outcomes demonstrated a significant mean change from pre-to post-treatment, suggesting that treatment had a positive impact on both pain and related domains. See Table 3 for the results.

3.2. Unwanted events

A total of 31 patients (36.5 %) did not report a single UE at session 4. Meanwhile, 32 (37.6 %) experienced 1–5 UE, and 9 (10.6 %) experienced >5 UE. At post-treatment, 35 patients (43.2 %) did not report a single UE, while 37 (45.7 %) experienced 1–5 UE, and 9 (11.1 %) experienced >5 UE.

There was a significant change from session 4 ($N = 85$, $k = 252$, $M = 3.0$, $SD = 3.3$) to post-treatment ($N = 81$, $k = 128$, $M = 1.6$, $SD = 2.3$) in terms of number of UE, Wilcoxon W(80) = 1279, $p < .001$, with an average decrease of 1.4.

The most frequently endorsed UE at session 4 and post-treatment and their respective negative impact are presented in Table 4.

3.3. Relationship between unwanted events and treatment outcome

The frequency of UE at session 4 was not significantly correlated to any secondary outcome at post-treatment, $p > .05$.

3.4. Deterioration rates

Deterioration rates for the secondary outcomes, based on the pre-to post-treatment change scores and the RCI are presented in Table 5.

4. Discussion

This study is the first to systematically assess UE and deterioration of ACT for fibromyalgia. It is also, to the knowledge of the authors, the first attempt in the psychotherapy literature to determine the relationship between self-reported UE during treatment and treatment outcome. The results indicate that at least one UE is reported by almost half of the patients (48.2 %) at session 4, and that a minority (10.6 %) experienced more than five UE. At post-treatment, these rates were similar to previous research (Holsting et al., 2017; Richter et al., 2024), indicating that UE might be expected in ACT. However, despite their occurrence, UE during treatment was not related to treatment outcome, suggesting

Table 2
Demographics of the participants (N = 94)*.

Variable		
Age M = 46.7, *SD* = 10.9, *Min* = 21, *Max* = 65		
	N	*%*
Gender		
Female	91	97.8 %
Male	2	2.2 %
Country of birth		
Sweden	52	56.5 %
The Nordic countries	4	4.3 %
Europe	7	7.6 %
Countries outside of Europe	29	31.5 %
Education		
Elementary	3	3.3 %
High-school	25	27.5 %
University	36	39.6 %
Other (e.g., vocational)	27	29.7 %
Employment		
Employed/self-employed	78	84.8 %
Unemployed	12	13.0 %
Other	2	2.2 %

* *N* vary due to missing values on some variables.

Table 3
Treatment results on the secondary outcomes (N = 94)*.

Outcome	*df*	*t*	Mean change**	Cohen's *d*	95 % CI
EQ-5D-3L VAS	73	5.62	14.6	0.65	0.40, 0.90
EQ-5D-3L Index	74	6.25	0.3	0.72	0.47, 0.98
HAD Depression	75	6.48	3.20	0.74	0.49, 1.00
HAD Anxiety	75	4.62	2.6	0.53	0.29, 0.77
MPI-S					
Pain severity	74	5.78	0.8	0.67	0.42, 0.92
Interference	74	6.31	0.9	0.73	0.47, 0.98
Life control	74	5.70	0.9	0.66	0.41, 0.91
Affective distress	73	5.91	1.1	0.69	0.43, 0.94
RAND-36					
Physical functioning***	73	3.03	7.1	0.35	0.12, 0.59
Role limitation due to physical health problems	72	3.50	14.3	0.41	0.17, 0.41
Role limitation due to personal or emotional problems	72	3.63	18.0	0.43	0.18, 0.66
Social functioning	63	3.40	13.2	0.43	0.17, 0.68
Emotional well-being	73	5.49	13.0	0.64	0.39, 0.89
Energy/fatigue	73	5.55	14.7	0.65	0.39, 0.89
General health	73	4.07	11.4	0.47	0.23, 0.71
Pain	72	5.43	11.6	0.63	0.38, 0.89
PCS	73	7.52	9.9	0.87	0.60, 1.14
ISI	69	5.04	3.7	0.60	0.35, 0.86

HAD = Hospital Anxiety and Depression Scale; MPI-S = Multidimensional Pain Inventory – Swedish Language Version; PCS = Pain Catastrophizing Scale; ISI = Insomnia Severity Index.

* df vary due to missing values on some of the secondary outcomes.

** In the direction of functionality, i.e., less symptom severity or higher functioning.

*** Test of RAND Physical functioning was no longer significant after Bonferroni-correction ($p = .003$).

Table 4
Most frequently endorsed unwanted events and their respective negative impact

Item	*k (%)*	*M (SD)*
Session 4 (N = 85)		
13. Unpleasant memories resurface	32 (12.7 %)	1.5 (1.4)
11. I experience more unpleasant feelings	28 (9.9 %)	1.1 (1.1)
2. I feel like I am under more stress	21 (8.3 %)	1.3 (1.3)
3. I experience more anxiety	19 (7.5 %)	0.8 (0.9)
9. I feel sadder	18 (7.1 %)	1.0 (1.1)
Post-treatment (N = 81)		
13. Unpleasant memories resurfaced	28 (21.9 %)	1.0 (0.9)
11. I experienced more unpleasant feelings	12 (9.4 %)	0.7 (0.9)
2. I felt like I was under more stress	10 (7.8 %)	0.8 (1.2)
20. I think that I have developed a dependency on my treatment	7 (5.4 %)	0.6 (1.0)
22. I did not always understand my treatment	7 (5.4 %)	0.4 (0.7)

Table 5
Deterioration rates for each secondary outcome (N = 94)*.

Outcome	*N (%)*	α	RCI Cutoff
EQ5D-3L-VAS	n.a.[a]	–	
EQ-5D Index	1 (1.3 %)	0.63	0.53
HAD Depression	1 (1.3 %)	0.82	4.86
HAD Anxiety	3 (4.0 %)	0.84	5.11
MPI-S			
Pain severity	2 (2.7 %)	0.80	1.14
Interference	4 (5.3 %)	0.86	1.05
Life control	0 (0.0 %)	0.66	1.80
Affective distress	2 (2.7 %)	0.80	1.46
RAND-36			
Physical functioning	9 (11.7 %)	0.97	10.64
Role limitation due to physical health problems	n.a.[b]	–	
Role limitation due to personal or emotional problems	n.a.[b]	–	
Social functioning	9 (12.5 %)	0.89	22.42
Emotional well-being	4 (5.2 %)	0.90	18.74
Energy/fatigue	4 (5.2 %)	0.89	15.27
General health	5 (6.5 %)	0.86	19.41
Pain	4 (5.2 %)	0.93	10.92
PCS	0 (0.0 %)	0.87	11.60
ISI	1 (1.3 %)	0.74	9.95

* *N* vary due to missing values on some variables.

[a] Visual Analogue Scale, not suitable for RCI.

[b] Yes/no response, not suitable for RCI.

that these incidents do not necessarily prevent patients from benefitting. On the contrary, the ACT group therapy format in this study resulted in significant moderate to large effect sizes on all secondary outcomes, in line with many clinical trials (Eastwood & Godfrey, 2024). Moreover, looking closely at the most frequently endorsed UE also reveals that the incidents might be expected and, from an ACT-perspective, a necessary part of treatment. Experiencing unpleasant memories resurfacing or having more unpleasant feelings could mean that treatment is touching on something relevant in the theorized change process. Still, further research on UE is still warranted as it could affect such aspects as adherence or dropout from treatment. This should also involve regular assessments of UE in clinical trials, which would allow comparisons across studies as well as between treatment and control conditions.

As for the deterioration rates, these estimates were lower than the expected 5–10 % range often referenced (Lutz et al., 2021). The only exceptions were the subscales Physical functioning and Social functioning which were slightly above 10 %. In a study of cognitive behavior therapy, Hedman-Lagerlof et al. (2024) showed that 12–17 % of patients with fibromyalgia deteriorated during treatment, implying that worsening can occur for these patients, but that the rates are similar to those of other conditions (Cuijpers et al., 2018; Rozental et al., 2017). To identify these patients and implement measures to reverse a negative treatment trend, routine outcome monitoring session-by-session is advised (Lambert & Harmon, 2018). However, the notion that deterioration can be attributable to treatment is not clear and warrants further research, preferably by qualitative means (De Smet et al., 2024).

This study provides some preliminary findings that broaden the current understanding of UE and deterioration in psychotherapy. However, several limitations also need to be considered when reviewing the results. First, the ACT group therapy format was administered at a specialist pain clinic to which few patients get access. As such, the sample may not be representative of all patients with generalized pain conditions. In addition, as this study was performed in routine care, details on such aspects as treatment refusers were not available, which might also affect the generalizability of the results. Second, not all patients completed the secondary outcomes, which could produce skewed results on these variables. Third, the NEQ was administered at session 4

as this marked the introduction of interventions that were hypothesized to induce UE. Yet, engaging with later content might be experienced as more negative by the patients (e.g., behavioral activation and exposure). Fourth, poor responsiveness on the RAND-36 has been found, especially for the subscale General health, suggesting that some items may be less responsive to change during treatment (Orwelius et al., 2017). Whether this affects deterioration rates is unclear but warrants some caution. Fifth, reporting UE can be susceptible by social desirability effects, such as patients not wanting to report UE if they are satisfied with their treatment in general, or primacy and recency effects (Rozental et al., 2015). Lastly, investigating UE, their characteristics and occurrence largely depends on what type of definition and assessment is used, as well as the type of sample and treatment involved (Jeckel et al., 2024). Hence, inferences based on the results from this study should be made with caution. Future research could try to incorporate the NEQ on several occasions during treatment to prevent some of these limitations, as well as to explore the expectations of patients when it comes to experiencing UE prior to entering treatment.

CRediT authorship contribution statement

Marie-Louise Henning Ottergård: Writing – review & editing, Resources, Data curation. **Linea Pretzmann:** Writing – review & editing. **Tobias Lundgren:** Writing – review & editing. **Lance McCracken:** Writing – review & editing. **Monica Buhrman:** Writing – review & editing. **Peter Molander:** Writing – review & editing. **Alexander Rozental:** Writing – original draft, Supervision, Methodology, Formal analysis, Conceptualization.

Data sharing agreement

Data is available upon reasonable request.

Ethical approval and informed consent

The current study received ethical approval from the Swedish Ethical Review Authority (Dnr: 2019–02461). All participants provided written informed consent. The research has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans.

The current study was funded by Fredrik and Ingrid Thurings' Trust (2019-00495).

Declaration of competing interest

The authors of the current study have not conflicting interests to report.

References

Bendelin, N., Björkdahl, P., Risell, M., Nelson, K. Z., Gerdle, B., Andersson, G., & Buhrman, M. (2020). Patients' experiences of internet-based acceptance and commitment therapy for chronic pain: A qualitative study. *BMC Musculoskeletal Disorders, 21*, 1–12.

Bergström, G., Jensen, I. B., Bodin, L., Linton, S. J., Nygren, A. L., & Carlsson, S. G. (1998). Reliability and factor structure of the multidimensional pain inventory–Swedish Language Version (MPI-S). *Pain, 75*(1), 101–110. https://doi.org/10.1016/S0304-3959(97)00210-8

Casey, M.-B., Smart, K. M., Hearty, C., Lowry, D., & Doody, C. (2019). Acceptance of chronic pain. Perspectives of individuals following an acceptance and commitment therapy pain management programme: An interpretative phenomenological analysis. *Physiotherapy Practice and Research, 40*(1), 9–19.

Catella, S., Gendreau, R. M., Kraus, A. C., Vega, N., Rosenbluth, M. J., Soefje, S., Malhotra, S., Luciano, J. V., McCracken, L. M., Williams, D. A., & Arnold, L. M. (2024). Self-guided digital acceptance and commitment therapy for fibromyalgia management: Results of a randomized, active-controlled, phase II pilot clinical trial. *Journal of Behavioral Medicine, 47*(1), 27–42. https://doi.org/10.1007/s10865-023-00429-3

Cuijpers, P., Reijnders, M., Karyotaki, E., de Wit, L., & Ebert, D. D. (2018). Negative effects of psychotherapies for adult depression: A meta-analysis of deterioration rates. *Journal of Affective Disorders, 239*, 138–145. https://doi.org/10.1016/j.jad.2018.05.050

De Smet, M. M., Acke, E., Cornelis, S., Truijens, F., Notaerts, L., Meganck, R., & Desmet, M. (2024). Understanding "patient deterioration" in psychotherapy from depressed patients' perspectives: A mixed methods multiple case study. *Psychotherapy Research*, 1–15. https://doi.org/10.1080/10503307.2024.2309286

Dragioti, E., Wiklund, T., Alfoldi, P., & Gerdle, B. (2015). The Swedish version of the Insomnia Severity Index: Factor structure analysis and psychometric properties in chronic pain patients. *Scand J Pain, 9*(1), 22–27. https://doi.org/10.1016/j.sjpain.2015.06.001

Eastwood, F., & Godfrey, E. (2024). The efficacy, acceptability and safety of acceptance and commitment therapy for fibromyalgia - a systematic review and meta-analysis. *British Journal of Pain, 18*(3), 243–256. https://doi.org/10.1177/20494637231221451

Fischer, M. R., Schults, M.-L., Stålnacke, B.-M., Ekholm, J., Persson, E. B., & Löfgren, M. (2020). Variability in patient characteristics and service provision of interdisciplinary pain rehabilitation: A study using? The Swedish national quality Registry for pain rehabilitation. *Journal of Rehabilitation Medicine, 52*(11), 1–10.

Hauser, W., Ablin, J., Fitzcharles, M. A., Littlejohn, G., Luciano, J. V., Usui, C., & Walitt, B. (2015). Fibromyalgia. *Nature Reviews Disease Primers, 1*, Article 15022. https://doi.org/10.1038/nrdp.2015.22

Hedman-Lagerlof, M., Gasslander, N., Ahnlund Hoffmann, A., Bragesjo, M., Etzell, A., Ezra, S., Frostell, E., Hedman-Lagerlof, E., Ivert, C., Liliequist, B., Ljotsson, B., Hoppe, J. M., Palmgren, J., Spansk, E., Sundstrom, F., Sarnholm, J., Tzavara, G., Buhrman, M., & Axelsson, E. (2024). Effect of exposure-based vs traditional cognitive behavior therapy for fibromyalgia: A two-site single-blind randomized controlled trial. *Pain, 165*(6), 1278–1288. https://doi.org/10.1097/j.pain.0000000000003128

Holsting, A. F., Pedersen, H. F., Rask, M. T., Frostholm, L., & Schroder, A. (2017). Is psychotherapy for functional somatic syndromes harmful? A mixed methods study on negative effects. *Journal of Psychosomatic Research, 98*, 113–121. https://doi.org/10.1016/j.jpsychores.2017.05.010

Jamovi Project. (2024). Jamovi version 2.5. https://www.jamovi.org.

Jeckel, J., Thiele, C., Hirschfeld, G., Teismann, T., Schneider, S., & von Brachel, R. (2024). Better safe than sorry. A scoping review of monitoring for negative effects in preregistrations of psychological interventions. *Clinical Psychology & Psychotherapy, 31*(2), Article e2968. https://doi.org/10.1002/cpp.2968

Kemani, M. K., Grimby-Ekman, A., Lundgren, J., Sullivan, M., & Lundberg, M. (2019). Factor structure and internal consistency of a Swedish version of the Pain Catastrophizing Scale. *Acta Anaesthesiologica Scandinavica, 63*(2), 259–266. https://doi.org/10.1111/aas.13246

Klatte, R., Strauss, B., Fluckiger, C., Farber, F., & Rosendahl, J. (2023). Defining and assessing adverse events and harmful effects in psychotherapy study protocols: A systematic review. *Psychotherapy, 60*(1), 130–148. https://doi.org/10.1037/pst0000359

Klatte, R., Strauss, B., Fluckiger, C., & Rosendahl, J. (2023). Adverse events in psychotherapy randomized controlled trials: A systematic review. *Psychotherapy Research*, 1–16. https://doi.org/10.1080/10503307.2023.2286992

Ladwig, I., Rief, W., & Nestoriuc, Y. (2014). Welche Risiken und Nebenwirkungen hat Psychotherapie? - Entwicklung des Inventars zur Erfassung Negativer Effekte von Psychotherapie (INEP). *Verhaltenstherapie, 24*(4), 252–263. https://doi.org/10.1159/000367928

Lambert, M. J., & Harmon, K. L. (2018). The merits of implementing routine outcome monitoring in clinical practice. *Clinical Psychology: Science and Practice, 25*(4). https://doi.org/10.1111/cpsp.12268

Linden, M. (2013). How to define, find and classify side effects in psychotherapy: From unwanted events to adverse treatment reactions. *Clinical Psychology & Psychotherapy, 20*(4), 286–296. https://doi.org/10.1002/cpp.1765

Lisspers, J., Nygren, A., & Soderman, E. (1997). Hospital anxiety and depression Scale (HAD): Some psychometric data for a Swedish sample. *Acta Psychiatrica Scandinavica, 96*(4), 281–286. https://doi.org/10.1111/j.1600-0447.1997.tb10164.x

Lutz, W., de Jong, K., Rubel, J. A., & Delgadillo, J. (2021). Measuring, predicting, and tracking change in psychotherapy. *Bergin and Garfield's handbook of psychotherapy and behavior change, 7*, 89–133.

Orwelius, L., Nilsson, M., Nilsson, E., Wenemark, M., Walfridsson, U., Lundstrom, M., Taft, C., Palaszewski, B., & Kristenson, M. (2017). The Swedish RAND-36 Health Survey - reliability and responsiveness assessed in patient populations using Svensson's method for paired ordinal data. *Journal of Patient-Reported Outcomes, 2*(1), 4. https://doi.org/10.1186/s41687-018-0030-0

Rabin, R., & de Charro, F. (2001). EQ-5D: A measure of health status from the EuroQol group. *Annals of Medicine, 33*(5), 337–343. https://doi.org/10.3109/07853890109002087

Richter, C., Rutschmann, R., & Romanczuk-Seiferth, N. (2024). Few negative effects of psychotherapy in a psychiatric day hospital: A follow-up survey to a multiprofessional treatment with acceptance and commitment therapy. *Front Psychiatry, 15*, Article 1235067. https://doi.org/10.3389/fpsyt.2024.1235067

Rozental, A., Boettcher, J., Andersson, G., Schmidt, B., & Carlbring, P. (2015). Negative effects of internet interventions: A qualitative content analysis of patients' experiences with treatments delivered online. *Cognitive Behaviour Therapy, 44*(3), 223–236. https://doi.org/10.1080/16506073.2015.1008033

Rozental, A., Castonguay, L., Dimidjian, S., Lambert, M., Shafran, R., Andersson, G., & Carlbring, P. (2018). Negative effects in psychotherapy: Commentary and recommendations for future research and clinical practice. *BJPsych Open, 4*(4), 307–312. https://doi.org/10.1192/bjo.2018.42

Rozental, A., Kottorp, A., Boettcher, J., Andersson, G., & Carlbring, P. (2016). Negative effects of psychological treatments: An exploratory factor analysis of the negative effects Questionnaire for monitoring and reporting adverse and unwanted events. *PLoS One, 11*(6), Article e0157503. https://doi.org/10.1371/journal.pone.0157503

Rozental, A., Kottorp, A., Forsstrom, D., Mansson, K., Boettcher, J., Andersson, G., Furmark, T., & Carlbring, P. (2019). The negative effects Questionnaire: Psychometric properties of an instrument for assessing negative effects in psychological treatments. *Behav Cogn Psychother, 47*(5), 559–572. https://doi.org/10.1017/S1352465819000018

Rozental, A., Magnusson, K., Boettcher, J., Andersson, G., & Carlbring, P. (2017). For better or worse: An individual patient data meta-analysis of deterioration among participants receiving Internet-based cognitive behavior therapy. *Journal of Consulting and Clinical Psychology, 85*(2), 160–177. https://doi.org/10.1037/ccp0000158

Sarzi-Puttini, P., Giorgi, V., Marotto, D., & Atzeni, F. (2020). Fibromyalgia: An update on clinical characteristics, aetiopathogenesis and treatment. *Nature Reviews Rheumatology, 16*(11), 645–660. https://doi.org/10.1038/s41584-020-00506-w

Sheehan, D. V., Lecrubier, Y., Sheehan, K. H., Amorim, P., Janavs, J., Weiller, E., Hergueta, T., Baker, R., & Dunbar, G. C. (1998). The mini-international Neuropsychiatric interview (MINI): The development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *Journal of clinical psychiatry, 59*(20), 22–33.

Vybiral, Z., Ogles, B. M., Rihacek, T., Urbancova, B., & Gociekova, V. (2024). Negative experiences in psychotherapy from clients' perspective: A qualitative meta-analysis. *Psychotherapy Research, 34*(3), 279–292. https://doi.org/10.1080/10503307.2023.2226813

Wicksell, R. K., Kemani, M., Jensen, K., Kosek, E., Kadetoff, D., Sorjonen, K., Ingvar, M., & Olsson, G. L. (2013). Acceptance and commitment therapy for fibromyalgia: A randomized controlled trial. *European Journal of Pain, 17*(4), 599–611. https://doi.org/10.1002/j.1532-2149.2012.00224.x

Wise, E. A. (2004). Methods for analyzing psychotherapy outcomes: A review of clinical significance, reliable change, and recommendations for future directions. *Journal of Personality Assessment, 82*(1), 50–59. https://doi.org/10.1207/s15327752jpa8201_10

Wolfe, F., Clauw, D. J., Fitzcharles, M. A., Goldenberg, D. L., Katz, R. S., Mease, P., Russell, A. S., Russell, I. J., Winfield, J. B., & Yunus, M. B. (2010). The American College of Rheumatology preliminary diagnostic criteria for fibromyalgia and measurement of symptom severity. *Arthritis Care & Research, 62*(5), 600–610. https://doi.org/10.1002/acr.20140