




Long-term relapse rates after cognitive behaviour therapy for anxiety and depressive disorders among older adults: A follow-up study during COVID-19

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Abstract

Objective: This study assessed the long-term symptom relapse rates among older adults previously treated with cognitive behaviour therapy (CBT) for anxiety and/or depression during COVID-19.

Methods: Participants were 37 older adults ($M = 75$ years, $SD = 5$; 65% female) previously treated with CBT for anxiety and/or unipolar depression who were re-assessed an average of 5.6 years later, during the first Australian COVID-19 lockdown.

Results: On average, there was no significant group-level change in anxiety, depression or quality of life. When assessing change in symptoms based on clinical cut-off points on self-report measures, results suggest only 17%–22% showed a relapse of symptoms by the COVID-19 pandemic.

Conclusions: Findings suggest that CBT may be protective in coping with life stressors many years after treatment ends. However, results warrant replication to attribute continued symptom improvement to CBT given the lack of control group.

KEYWORDS

anxiety, cognitive behavioral therapy, COVID-19, depression, geriatrics, frail older adults, treatment

1 | INTRODUCTION

Depression and anxiety are the most common mental health problems in later life.¹ Cognitive behaviour therapy (CBT) is effective for treating anxiety and depression in older adults^{2,3} with improvements maintained at least six months following treatment cessation.³ However, there is little data

assessing the long-term durability of treatment gains, especially in the context of significant stressors. The coronavirus pandemic (COVID-19) presents a unique opportunity to assess the long-term durability of CBT in the context of a stressor.

Older adults are at greatest risk of significant morbidity and mortality from COVID-19^{4,5} and report the high levels

of peritraumatic distress related to COVID-19.⁶ Emerging data show that individuals with pre-existing anxiety-related or mood disorders have experienced greater distress during COVID-19 than those without pre-existing mental health problems.⁷ However, it is unclear how individuals who were treated for a mental health problem have fared.

CBT is a skill-focused treatment that teaches individuals to change the way they think and behave in order to manage mental ill-health, including anxiety and depression. CBT is based on the premise that treated individuals acquire skills that help to improve their coping and emotion regulation and that these new skills will facilitate resilience when faced with life stressors. To date, no studies have assessed the impact of COVID-19 on those previously treated with CBT, and whether they are vulnerable to symptom relapse.

This study examined whether older adults previously treated with CBT for an anxiety and/or depressive disorder are vulnerable to relapse at the time of the first Australian COVID-19 lockdown. In Australia, the first case of COVID-19 was first confirmed in late January 2020. As the 'first wave' of cases grew, Australian borders were closed to non-residents from mid-March and the New South Wales state (from where this sample was drawn) government issued lockdown orders that restricted public gatherings to two people, moved children to online education and limited non-essential travel outside of a person's residence. These orders were in effect until mid-May 2020 where they gradually eased. Parallel lockdown periods have been implemented in most countries, with increased emphasis for older adults to maintain social distance given their heightened vulnerability, even as restrictions ease for younger age groups.

2 | METHODS

2.1 | Participants

Participants were 37 community-dwelling older adults aged 66–84 ($M = 75$, $SD = 5$; 65% female) who were previously treated with CBT for a DSM-IV anxiety and/or unipolar mood disorder as part of three clinical trials.^{2,3,9} The most common primary diagnosis at entry to treatment according to the Anxiety Disorders Interview Schedule¹⁰ was generalised anxiety disorder (35.1%), major depressive disorder (18.92%), depressive disorder not otherwise specified (13.51%), social phobia (10.81%), dysthymia (8.11%), anxiety disorder not otherwise specified (5.41%), panic disorder (2.70%) and somatic symptom disorder (2.70%). Comorbidity was high, with 81% having a comorbid anxiety or unipolar depressive disorder diagnosis. The majority (86.5%) were retired, and 43% were living alone.

Policy Impact

With increasing emphasis on improving mental health of older Australians, this study suggests that approximately 80% of individuals who were effectively treated with cognitive behaviour therapy (CBT) for anxiety or depression remained asymptomatic approximately 5 years later, even during COVID-19. CBT-based interventions for older people should be funded and made more accessible.

Practice Impact

Only 17%–22% of older adults previously treated with cognitive behaviour therapy (CBT) for anxiety and depression showed a relapse of symptoms during COVID-19 lockdown. CBT may have long-term protective effects despite challenging life circumstances, even around 5 years after treatment ends. CBT should be a first-line treatment for older adults with anxiety or depression.

2.2 | Measures

2.2.1 | Geriatric anxiety inventory (GAI)

The GAI is a widely used self-report measure of anxiety symptoms in older adults.¹¹ The GAI demonstrates excellent internal consistency, test-retest reliability, convergent validity and criterion validity against diagnostic criteria.^{11,12} Scores above 9 are indicative of the presence of an anxiety disorder.^{11,12} Internal consistency was excellent in this sample at post-treatment ($\alpha = 0.92$) and COVID-19 follow-up ($\alpha = 0.91$).

2.2.2 | Geriatric depression scale (GDS)

The GDS is the most common self-report measure of depressive symptoms in older adults.¹³ The GDS shows high internal consistency, test-retest reliability, criterion validity and discriminant and convergent validity.^{13,14} Scores of 10 and above indicate likely the presence of a depressive disorder. Internal consistency was excellent in this sample at post-treatment ($\alpha = 0.91$) and COVID-19 follow-up ($\alpha = 0.92$).

2.2.3 | Kessler-10 (K10)

The K10 is a 10-item self-report measure of psychological distress and includes anxiety and depression symptoms.¹⁵

	Before COVID-19	During COVID-19			
	EMM (SE)	EMM (SE)	F	P	Cohen's d
GAI	6.03 (0.94)	5.81 (0.89)	1.69	0.2	0.01
GDS	10.69 (1.20)	12.78 (1.30)	0.21	0.6	0.26
K10	19.29 (1.35)	18.93 (1.52)	0.50	0.5	0.20
WHOQOL-Physical	13.48 (0.89)	12.86 (0.94)	0.19	0.7	0.22
WHOQOL-Psychological	12.56 (0.73)	11.89 (0.65)	0.15	0.7	0.04
WHOQOL-Social	12.22 (1.09)	12.22 (0.94)	2.26	0.2	0.13
WHOQOL-Environmental	15.92 (0.46)	14.38 (0.62)	2.57	0.1	0.41

Abbreviations: GAI, Geriatric Anxiety Inventory; GDS, Geriatric Depression Scale; K10, Kessler-10; WHOQOL, World Health Organization Quality of Life-BREF.

TABLE 1 Estimated marginal means and standard error of emotional functioning and quality of life before and during COVID-19, controlling for the number of months between ratings

Items are rated from 1 (*None of the time*) to 5 (*All of the time*). The K10 has good internal consistency, convergent validity and criterion validity.¹⁵ Scores above 20 indicate the presence of an anxiety or depressive disorder.^{16,17} Internal consistency was excellent in this sample at post-treatment ($\alpha = 0.92$) and COVID-19 follow-up ($\alpha = 0.93$).

2.2.4 | World health organization quality of life-BREF (WHOQoL-BREF)

The WHOQoL-BREF assesses quality of life across four domains: physical health, psychological health, social relationships and environment.¹⁸ Items are rated on a five-point Likert scale with higher scores denoting better quality of life.¹⁸ Internal consistency was good in this sample at pre-COVID-19 and during COVID-19 for the physical health ($\alpha = 0.86$ and 0.82 , respectively) and psychological health ($\alpha = 0.92$ and 0.85) domains. Internal consistency was excellent a pre-COVID-19 for the social relationships domain ($\alpha = 0.93$) and acceptable during COVID-19 ($\alpha = 0.61$) and acceptable pre-COVID-19 for the environment domain ($\alpha = 0.63$) and good during COVID-19 ($\alpha = 0.84$).

2.3 | Treatment

Participants were previously treated using a manualised CBT program for depression and anxiety (Ageing Wisely).¹⁹ This program consisted of 11-12 weekly two-hour sessions and included psychoeducation about anxiety and depression, behavioural activation, cognitive restructuring, problem solving, graded exposure therapy, assertiveness training, sleep strategies, dealing with loss and bereavement and relapse prevention. Treatment was delivered by postgraduate-level Clinical Psychology students at Macquarie University, Sydney, Australia, who received weekly supervision from experienced clinical psychologists.

2.4 | Procedure

This study was approved by the Macquarie University Human Research Ethics Committee (Reference: 52020670715732). All participants provided written informed consent. Pre-COVID-19 data were extracted from the last available datapoint after treatment completion (either post-treatment, 3- or 6-month follow-up) with data ranging from 1 to 129 ($M = 68$, $SD = 43$) months prior to the COVID-19 lockdown in Australia, and 18 (29.51%) completed within six months prior to lockdown. Participants were invited to complete an online survey assessing the impact of COVID-19 on older adults in April-May 2020 (after 'stay at home' orders were issued in Australia), and before the restrictions were lifted.

3 | RESULTS

Controlling for the number of months between post-treatment ratings and COVID-19 ratings, there were no significant differences in GAI, GDS, K10 or WHOQOL scores from pre-COVID-19 to COVID-19 lockdown (see Table 1).

Based on GAI scores, 47.2% scored in non-clinical range at both post-treatment and COVID-19 (ie stable remission), 22.2% scored in the clinical range at the end of CBT but improved to score in the non-clinical range during COVID-19 lockdown (ie remitted over time), 16.7% scored in the non-clinical range at post-treatment and in clinical range during the COVID-19 lockdown (ie relapsed), and 13.9% scored in the clinical range at post-treatment and COVID-19 lockdown (ie stable non-responders). On the GDS, 30.6% were in stable remission, 13.9% remitted over time, 22.2% relapsed, and 33% were stable non-responders. On the K10, 50.0% were in stable remission, 21.4% remitted over time, 7.1% showed relapse, and 21.4% were stable non-responders. Using multinomial regression, time (months) between pre-COVID-19 data and COVID-19 data was not a significant predictor of remission group (all P 's > 0.05).

4 | DISCUSSION

This study sought to examine the rate of symptom relapse among older adults previously treated with CBT for an anxiety and/or depressive disorder during COVID-19 lockdowns. Findings suggested that very few (7%-17%) older adults with a previous mood or anxiety disorder, who were previously treated with CBT, showed significant relapse of symptoms during COVID-19, even after a mean of 5.67 years post-treatment. This effect held even after controlling for the duration between treatment and COVID-19. While studies suggest that adults with pre-existing untreated anxiety and depressive disorders have shown greater emotional distress during COVID-19 compared to unaffected individuals,⁷ most older adults who have been treated with CBT do not appear to have been negatively affected. This may suggest a protective effect of CBT in the context of stressful life circumstances, even many years after treatment.

5 | CONCLUSIONS

While results suggest some long-term protective effect of CBT treatment, the lack of a comparison condition treated with an alternative treatment limits the conclusions about specificity of CBT effects compared to other treatments, or to no treatment conditions. For the small number of individuals who did show relapse of symptoms, the temporal sequence of this relapse was unclear, and it is possible that they showed symptom relapse before the onset of COVID-19. There are no data available on relapse rates among those who remitted from CBT, making it difficult to compare relapse rates in this study and assess any differential impact of COVID-19 specifically. Although exacerbation of mental ill-health during COVID-19 has been observed among untreated younger adults,⁷ similar exacerbation has not been reported in untreated older adults. It may be that older adults, many of whom will have experienced historical hardships, may cope better than younger adults in the context of the COVID-19 stressors. The relatively small sample size also limits statistical power, and results warrant replication. Finally, Australia has had a comparatively low COVID-19 infection and death rate compared to other countries (eg USA, United Kingdom), and these data were collected during the first wave of infection and lockdowns. It is possible that the national context of Australia and the assessment of impact relatively early during the COVID-19 pandemic may result in lower levels of psychological distress than countries with higher morbidity and mortality risk, or later stages of the pandemic. As such, findings should be generalised with caution and consideration of the national and international circumstances.

CONFLICTS OF INTEREST

No conflicts of interest declared.

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