Preliminary effectiveness and feasibility of a 16-week EASE Mentorship program for anxiety-related severity and functional impairment: A mixed-methods, single-arm longitudinal study

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Abstract

Background: Digital and hybrid anxiety programs may improve access to psychological support, yet evidence is needed regarding real-world effectiveness, feasibility, and mechanisms of change.

Methods: A single-arm, longitudinal preliminary effectiveness and feasibility study evaluated outcomes across three timepoints; baseline (T0), midpoint (T1), and endpoint (T2), within a 16-week EASE Mentorship cohort (N = 11). Primary outcomes were anxiety-related severity/impairment (OASIS) and functional impairment (WSAS). Secondary outcomes included GAD-7 and three program evaluation ratings (fear-of-fear, confidence responding to anxiety, and interference with life roles). Longitudinal change was tested using generalized estimating equations (GEE; Gaussian family; robust SEs), with completer paired t-tests as sensitivity analyses. Eight post-program exit interviews were analysed using reflexive thematic analysis (RTA) with a mechanisms-first orientation and an embedded feasibility/acceptability lens. Mixed-methods integration used a joint display linking quantitative change patterns to perceived mechanisms and feasibility moderators.

Results: OASIS decreased from M = 13.73 (SD = 3.50) at T0 to M = 10.73 (SD = 5.08) at T1 and M = 6.90 (SD = 4.43) at T2 (n = 10 at T2). WSAS decreased from M = 23.00 (SD = 6.77) at T0 to M = 15.09 (SD = 9.52) at T1 and M = 11.00 (SD = 9.44) at T2 (n = 10 at T2). GEE indicated significant improvement by endpoint for both OASIS and WSAS (T2 vs T0 ps < .001), with heterogeneous individual trajectories including one negative-case functional deterioration. RTA yielded six themes describing perceived mechanisms (meaning shift; acceptance/tolerance; changed relationship to thoughts/uncertainty; behavioural re-engagement; belonging/repetition) and feasibility moderators (fit, access, design friction, competing drivers).

Conclusions: Findings provide preliminary evidence consistent with reduced anxiety severity/impairment and functional impairment over a 16-week cohort, alongside qualitative support for plausible mechanisms and clear, actionable feasibility refinements. Controlled trials are required to establish efficacy and to clarify for whom the program is most beneficial.

Keywords: anxiety; functional impairment; mixed-methods; feasibility; acceptability; mechanisms of change; digital intervention.

Introduction

The EASE Mentorship is a structured 16-week recovery programme designed to address three interlocking processes that perpetuate stuck anxiety: (1) unresolved root causes, (2) anxiety about anxiety (fear of fear), and (3) nervous system depletion and avoidance-driven functional restriction. The programme operationalises a four-step response sequence; Empower, Accept, Shift, and Engage, intended to reduce threat reactivity and experiential avoidance, strengthen flexible attention and self-efficacy, and support graded re-engagement with avoided life domains. The present mixed-methods preliminary effectiveness and feasibility study evaluated changes in anxiety severity and functional impairment across three time points (baseline, midpoint, and exit) and explored participant-reported mechanisms of change, acceptability, and feasibility considerations. We hypothesised that participants would show reductions in anxiety severity and functional impairment over time, and that qualitative reports would converge on mechanisms consistent with reduced fear of fear, increased acceptance, and improved engagement with meaningful activities.

Digital and hybrid formats have emerged as one pragmatic pathway to extend evidence-based care, particularly where clinical capacity and funding constrain access. Updated meta-analytic work indicates that computer-delivered therapy for anxiety and depressive disorders can be effective and acceptable, with potential to support broader reach when appropriately implemented (Andrews et al., 2018). Similarly, low-intensity interventions have been studied as 'bridging' supports during waiting periods for face-to-face therapy (Floris et al., 2025). Together, these developments support the rationale for structured, mechanism-focused programmes that can be delivered at scale while retaining clinical depth.

A convergent theme across contemporary empirically supported psychological models of anxiety is that the persistence of anxiety is driven less by the presence of anxious sensations per se, and more by the individual's learned relationship to those sensations, particularly catastrophic misinterpretation, avoidance, and fear of fear. Cognitive models of panic, for example, emphasise that the misinterpretation of benign bodily sensations as dangerous escalates arousal and reinforces avoidance (Clark, 1986). Exposure-based and learning-focused approaches aim to reverse these cycles by promoting new inhibitory learning through systematic contact with feared internal and external cues (Craske et al., 2014). Acceptance-based interventions similarly emphasise willingness to experience internal states without struggle, reducing experiential avoidance and enabling re-engagement with valued life activities. Randomised trials support acceptance-based behaviour therapy for generalised anxiety disorder (Roemer et al., 2008), and meta-analytic evidence supports the efficacy of acceptance and commitment therapy across clinically relevant mental health problems, including anxiety presentations (A-Tjak et al., 2015). Notably, these principles mirror the practical emphasis found in influential clinical writings that popularised an acceptance-oriented response to anxious arousal (e.g., Weekes, 1969), although contemporary psychological treatments articulate these mechanisms within experimentally grounded learning and behavioural frameworks.

Pharmacotherapy, most commonly selective serotonin reuptake inhibitors and serotonin–noradrenaline reuptake inhibitors, remains a frequently used first-line approach. Meta-analytic evidence suggests that medication can be beneficial for many individuals, but clinical response and remission are far from universal, and a meaningful subgroup remains symptomatic despite adequate trials. Moreover, relapse following antidepressant discontinuation is common across anxiety disorders, with relapse prevention trials indicating higher relapse risk after discontinuation relative to continuation (Batelaan et al., 2017). These limitations, alongside issues of access, preference, tolerability, and long-term adherence, underscore the need for scalable interventions that target core maintaining mechanisms and support durable functional recovery.

Evidence from large cross-national surveys indicates a substantial treatment gap. In the World Mental Health Surveys, only a minority of individuals meeting criteria for 12-month anxiety disorders reported receiving any mental health treatment, and a smaller fraction received minimally adequate treatment (Alonso et al., 2018). Barriers to care are multi-determined and include attitudinal factors (e.g., preference to manage problems independently, stigma, and low perceived need) alongside structural barriers such as cost and limited availability of services (Andrade et al., 2014). Financial constraints are consistently salient; for example, population studies of unmet need show that financial barriers are commonly endorsed as key reasons for not accessing additional care (Rens et al., 2022). In addition, long waiting lists are a recurrent feature of routine psychological services, with most providers reporting maintaining waiting lists while offering limited interim supports (Peipert et al., 2022).

Anxiety disorders are among the most common mental disorders worldwide and are associated with substantial functional impairment and societal burden. Global estimates indicate that anxiety disorders affect a meaningful proportion of the population at any given time, with systematic reviews reporting a point prevalence in the mid–single digits (Baxter et al., 2013). More recently, modelling of Global Burden of Disease data suggested a marked increase in the prevalence of anxiety disorders in 2020 associated with the COVID-19 pandemic (Santomauro et al., 2021). Despite their prevalence and impact, anxiety disorders remain under-detected and under-treated in many health systems.

Methods

Design

A single-arm, longitudinal preliminary effectiveness and feasibility study evaluated outcomes across three timepoints; baseline (T0), midpoint (T1), and endpoint (T2), within a 16-week EASE Mentorship cohort. A mixed-methods design incorporated post-program exit interviews to explore perceived mechanisms of change and feasibility/acceptability.

Participants and recruitment

Eleven adults were enrolled following an application process for a research scholarship cohort. Participants spanned multiple international time zones (including New Zealand, the United Kingdom, and North America). All participants provided informed consent and agreed to complete study measures and an exit interview. Baseline characteristics are presented in Table 2.

Ethical considerations

This study was conducted as an evaluation of an existing program. All participants provided informed consent for their de-identified questionnaire and interview data to be analysed and reported in aggregate. Qualitative excerpts were de-identified and linked only to participant study IDs.

Intervention and weekly structure snapshot

The EASE Mentorship is a 16-week structured recovery program delivered through asynchronous learning materials (modules and reflective exercises) and group-based support. Participants had access to a weekly 60–90 minute group coaching call, with the option to attend live or via replay; baseline commitments indicated that most participants anticipated being available for the weekly call. Participants were encouraged to complete weekly self-reflective exercises and apply skills to real-world situations between sessions.

Measures

Primary outcomes were anxiety-related severity/impairment (OASIS) and functional impairment (WSAS). Secondary outcomes included GAD-7 and three program evaluation ratings (fear-of-fear, confidence responding to anxiety, and interference with life roles).

Procedure

Self-report measures were administered at T0, T1, and T2 (with some missingness at T2). Exit interviews were conducted after program completion using a semi-structured format focused on perceived changes, mechanisms, and feasibility/acceptability.

Quantitative analysis

Analyses were exploratory given the small sample. Descriptive statistics were computed for each timepoint. Longitudinal change was tested using generalized estimating equations (GEE) with a Gaussian family and robust standard errors, modelling time as a categorical predictor (T0 reference). Paired t-tests for completers were computed as a complementary sensitivity analysis. Missing data were handled using available-case analysis; no imputation was performed.

Qualitative analysis

Exit interviews were analysed using reflexive thematic analysis with a mechanisms-first orientation and an embedded feasibility/acceptability lens. Coding proceeded iteratively with attention to discrepant and negative cases. Themes were developed through

within-case memoing and cross-case patterning and refined into a final thematic structure suitable for mixed-methods integration.

Mixed-methods integration

A joint display was used to integrate quantitative change patterns with qualitative mechanisms and feasibility moderators, supporting interpretation without over-claiming causal attribution.

Reflexivity

The author is the developer and clinician associated with the EASE Mentorship program, introducing potential allegiance effects. This was addressed through explicit reflexive memoing, systematic attention to discrepant/negative cases, and conservative framing of interpretations given the single-arm design and small sample.

Results

Participant flow and data completeness

All 11 participants completed baseline and midpoint measures. Ten participants completed endpoint (T2) measures; one participant had missing endpoint data. Eight participants completed an exit interview; one interview remains pending; two participants did not respond to interview requests.

Quantitative outcomes

OASIS decreased from M = 13.73 (SD = 3.50) at T0 to M = 10.73 (SD = 5.08) at T1 and M = 6.90 (SD = 4.43) at T2 (n = 10 at T2). WSAS decreased from M = 23.00 (SD = 6.77) at T0 to M = 15.09 (SD = 9.52) at T1 and M = 11.00 (SD = 9.44) at T2 (n = 10 at T2).

Generalized estimating equation models indicated significant improvement by endpoint for both OASIS and WSAS (T2 vs T0 ps < .001). Completer sensitivity analyses (paired t-tests; n = 10) also indicated significant improvements for OASIS, WSAS, and GAD-7.

Figure 1 displays mean OASIS and WSAS scores over time.

Figure 1. Mean OASIS and WSAS scores over time (T0–T2).

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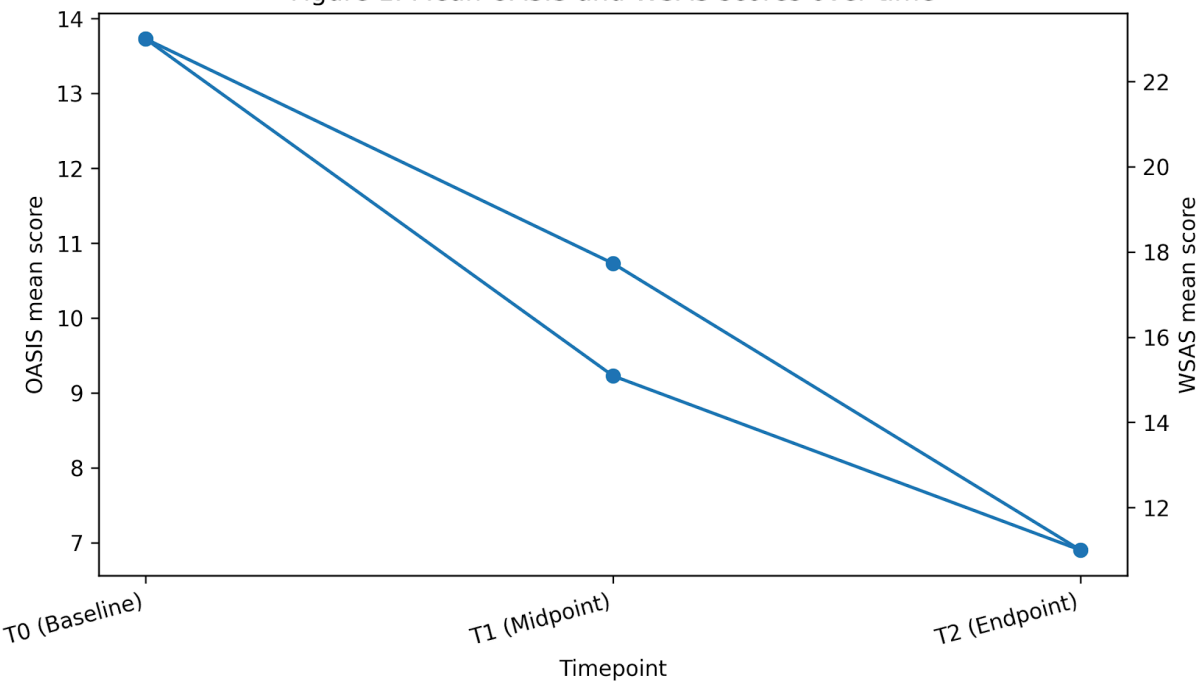

Qualitative results

Exit interviews yielded six themes capturing perceived mechanisms of change and feasibility moderators. In summary, participants described: (1) a meaning shift (anxiety as signal rather than threat), (2) acceptance/tolerance reducing escalation, (3) a changed relationship to thoughts and uncertainty, (4) behavioural re-engagement restoring agency, (5) belonging/repetition consolidating learning, and (6) fit, design constraints, and competing drivers moderating engagement and outcomes.

Mixed-methods integration

A joint display (Table 1) was used to integrate quantitative change patterns with qualitative mechanisms and feasibility moderators among interview completers. Stronger quantitative responders commonly described a meaning shift paired with behavioural re-engagement and/or cognitive relationship change, supported by group universality and repetition. Mixed or constrained outcomes aligned with feasibility barriers (e.g., time-zone burden, call inhibition, screen intolerance, progression bottlenecks) and competing drivers.

Table 1. Joint display of perceived mechanisms of change and acceptability, mapped to quantitative change patterns (T0–T2) among exit-interview completers (n = 8).

Table note. This joint display integrates participant-reported mechanisms and acceptability/feasibility experiences with observed change on outcome measures in a preliminary, single-arm design. Qualitative findings contextualise patterns of change and engagement (including divergent and negative cases) and are not presented as evidence of causal efficacy. All excerpts have been de-identified and linked only to Participant_IDs.

Participant ID	OASIS (T0→T2)	WSAS (T0→T2)	Integrated outcome pattern	Dominant mechanisms (themes)	Feasibility / acceptability signal	Representative excerpt
EASE25-001	12→7 (Δ=-5)	18→7 (Δ=-11)	Symptom and functioning improvement aligned with reduced fear-of-fear	Reclassification of anxiety as normal; reduced reassurance/checking; increased flexibility	Group felt safe; freeze response limited speaking but did not prevent benefit	"I'm not as scared of anxiety anymore… I work with it instead of against it now."
EASE25-003	13→12 (Δ=-1)	30→12 (Δ=-18)	Functioning improved substantially despite minimal symptom change; "misfit/boundary case" signal for refinement	Diagnostic clarity reduced fixation; situational reframe; tempo regulation	Friction from schedule change; avoided calls; "hard-stop" progression blockers impeded engagement	"I realized my anxiety is situational, not clinical."
EASE25-004	11→5 (Δ=-6)	19→8 (Δ=-11)	Clear symptom/function improvement with nuanced midline activation risk	Success criteria shift (actions > symptoms); operationalised acceptance; universality benefits	Calls often helpful but sometimes activating/triggering; variable live attendance	"I never really worked out what it was to sit with it without… putting the anxiety suit on."
EASE25-006	19→3 (Δ=-16)	26→9 (Δ=-17)	Large symptom and functioning improvement, strongly consistent with group-mediated shame reduction	Universality ("not alone") reduced shame; defusion/metacognitive shift; self-compassion via pattern awareness	Calls useful via replay; participant notes live attendance would add value	"I used to feel ashamed… now… I know I'm not alone."
EASE25-007	16→15 (Δ=-1)	28→37 (Δ=9)	Minimal symptom change with worsened functioning; credible negative case indicating external constraint	Reinforcement/nuance helpful; schema/values added; contextual reframe of "leak"	Accessibility barrier (screens); reduced engagement; medical confound constrained outcomes; suggestion for more structure on calls	"There's been a leak… no matter what I would have done, I would have never [filled] it up."
EASE25-009	17→7 (Δ=-10)	29→8 (Δ=-21)	Strong improvement aligned with exposure/mastery narrative	Reframe + acceptance; graded exposure with regulated pause; attention training (outward focus)	Strong real-world feasibility (protected time; used downtime); request for checklist/cue-card	"I got on… started getting a little panicky… so I pulled over… gathered my thoughts… and then I proceeded on."

EASE25-010	15→4 (Δ=-11)	24→6 (Δ=-18)	Strong symptom/function improvement aligned with "anxiety-as-information" shift and skills repertoire	Anxiety reframed as warning sign; strategy selection as self-regulation; reinforced learning via structured resources	Time-zone burden for live calls; some performance-pressure ("homework") effect	"I'm friends with it… it's a warning sign."
EASE25-011	12→10 (Δ=-2)	17→12 (Δ=-5)	Modest improvement with ongoing medical uncertainty; mechanism clarity strong (panic maintenance loop)	Acceptance reduces panic duration; repetition/accumulation effect; belief-level insight windows	Values relational containment even without sharing; soothing/supportive despite quiet participation	"If I'm scared of the panic, it stays… if I let it peak, it goes away."

Discussion

This preliminary mixed-methods evaluation found reductions in anxiety-related severity/impairment and functional impairment over a 16-week cohort, with significant endpoint improvements in longitudinal modelling and completer sensitivity analyses. Outcomes were heterogeneous and included a clinically important negative-case pattern of functional deterioration by endpoint.

Qualitative findings supported coherent, plausible mechanisms aligned with the program's targets (meaning shift; operationalised acceptance/tolerance; altered relationship to thoughts/uncertainty; behavioural re-engagement) and identified group-based universality and repetition as consolidating factors. Feasibility findings highlighted moderators that likely influenced engagement and outcomes, including time-zone burden, inhibition or avoidance in group calls, screen intolerance, and progression bottlenecks.

Given the single-arm design and small sample, findings should be interpreted as preliminary and hypothesis-generating. Controlled trials are required to establish efficacy and to clarify moderators of response.

References

A-Tjak, J. G. L., Davis, M. L., Morina, N., Powers, M. B., Smits, J. A. J., & Emmelkamp, P. M. G. (2015). A meta-analysis of the efficacy of acceptance and commitment therapy for clinically relevant mental and physical health problems. Psychotherapy and Psychosomatics, 84(1), 30–36.

Alonso, J., Liu, Z., Evans-Lacko, S., Sadikova, E., Sampson, N. A., Chatterji, S., … Kessler, R. C. (2018). Treatment gap for anxiety disorders is global: Results of the World Mental Health Surveys in 21 countries. Depression and Anxiety, 35(3), 195–208. https://doi.org/10.1002/da.22711

Andrade, L. H., Alonso, J., Mneimneh, Z., Wells, J. E., Al-Hamzawi, A., Borges, G., … Kessler, R. C. (2014). Barriers to mental health treatment: Results from the WHO World Mental Health surveys. Psychological Medicine, 44(6), 1303–1317. https://doi.org/10.1017/S0033291713001943

Andrews, G., Basu, A., Cuijpers, P., Craske, M. G., McEvoy, P., English, C. L., & Newby, J. M. (2018). Computer therapy for the anxiety and depressive disorders is effective, acceptable and practical health care: An updated meta-analysis. Journal of Anxiety Disorders, 55, 70–78.

Batelaan, N. M., Bosman, R. C., Muntingh, A., Scholten, W. D., Huijbregts, K. M. L., & van Balkom, A. J. L. M. (2017). Risk of relapse after antidepressant discontinuation in anxiety disorders, obsessive-compulsive disorder, and post-traumatic stress disorder: Systematic review and meta-analysis of relapse prevention trials. BMJ, 358, j3927. https://doi.org/10.1136/bmj.j3927

Baxter, A. J., Scott, K. M., Vos, T., & Whiteford, H. A. (2013). Global prevalence of anxiety disorders: A systematic review and meta-regression. Psychological Medicine, 43(5), 897–910. https://doi.org/10.1017/S003329171200147X

Clark, D. M. (1986). A cognitive approach to panic. Behaviour Research and Therapy, 24(4), 461–470.

Craske, M. G., Treanor, M., Conway, C. C., Zbozinek, T., & Vervliet, B. (2014). Maximizing exposure therapy: An inhibitory learning approach. Behaviour Research and Therapy, 58, 10–23.

Floris, M., Bruno, G., Purgato, M., Cammilli, I., Bottesi, G., Salcuni, S., Spoto, A., Gentili, C., & Cristea, I. A. (2025). Unguided self-help to bridge waiting time for face-to-face therapy in a university student mental health service: Interrupted time series analysis. BJPsych Open, 11(6), e227. https://doi.org/10.1192/bjo.2025.10843

Peipert, A., Krendl, A. C., & Lorenzo-Luaces, L. (2022). Waiting lists for psychotherapy and provider attitudes toward low-intensity treatments as potential interventions: Survey study. JMIR Formative Research, 6(9), e39787. https://doi.org/10.2196/39787

Rens, E., Michielsen, J., Dom, G., Remmen, R., & Van den Broeck, K. (2022). Clinically assessed and perceived unmet mental health needs, health care use and barriers to care for mental health problems in a Belgian general population sample. BMC Psychiatry, 22, 455. https://doi.org/10.1186/s12888-022-04094-9

Roemer, L., Orsillo, S. M., & Salters-Pedneault, K. (2008). Efficacy of an acceptance-based behavior therapy for generalized anxiety disorder: Evaluation in a randomized controlled trial. Journal of Consulting and Clinical Psychology, 76(6), 1083–1089.

Santomauro, D. F., Mantilla Herrera, A. M., Shadid, J., Zheng, P., Ashbaugh, C., Pigott, D. M., … Ferrari, A. J. (2021). Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic. The Lancet, 398(10312), 1700–1712. https://doi.org/10.1016/S0140-6736(21)02143-7

Weekes, C. (1969). Hope and help for your nerves. Angus & Robertson.

Tables

Table 2. Baseline characteristics of participants (N = 11).

Note: Several baseline variables allowed multiple responses; therefore, category totals may exceed 100%.

Demographics

Characteristic	n (%)
Age band	
25–29	2 (18.2%)
30–39	1 (9.1%)
40–49	4 (36.4%)
50–60	4 (36.4%)
Region (from time zone)	
US/Canada	6 (54.5%)
New Zealand	2 (18.2%)
Australia	1 (9.1%)
United Kingdom	1 (9.1%)
Other	1 (9.1%)

Work/role context (multi-select)

Characteristic	n (%)
Employed	7 (63.6%)
Self-employed / business owner	5 (45.5%)
Parenting/caregiver	3 (27.3%)
Studying	2 (18.2%)
Graduate degree in progress	1 (9.1%)

On extended leave	
Yes	3 (27.3%)
No	8 (72.7%)

Current supports (multi-select)

Support type	n (%)
Medication	6 (54.5%)
Therapy	5 (45.5%)
Other online program	2 (18.2%)
Alternative health	2 (18.2%)
Coaching	1 (9.1%)

Feasibility/acceptability indicators (baseline commitments)

Indicator	n (%)
Available for weekly 60–90 min group call	9 (81.8%)
Not available for weekly group call	2 (18.2%)
Confirmed capacity to complete all surveys + weekly check-ins	11 (100%)
Comfortable in group setting + confidentiality	11 (100%)
Confirmed understanding this is a research cohort	11 (100%)

Self-reported OCD (screen item; not a diagnosis)

Item	n (%)
OCD selected	1 (9.1%)
None of the above selected	10 (90.9%)