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BRIEF REPORT

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Haven schools: A pilot evaluation of a school-based programme to reduce anxiety in young people

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Abstract

Objectives: The aim of this study was to conduct a pilot evaluation of a novel six-week school-based intervention ('Haven Schools') on young people's psychological wellbeing.

Methods: One hundred and forty-one students (ages 12–16 years) from 11 schools in England attended up to six sessions of the intervention at their school during the day. Psychological wellbeing was evaluated at each session using the overall score on the Young Person's Core-10 (YP CORE-10) outcome measure, and anxiety and self-harm were evaluated using individual questions in the YP CORE-10.

Results: Participants' psychological wellbeing was significantly better at their last session compared to their first session. Anxiety and thoughts of self-harm were also significantly lower in last sessions compared to first sessions. Attendance was good, with 64% attending at least four sessions ($M = 3.99$ sessions attended).

Conclusions: The Haven Schools programme appears to have promising initial results; however, further investigation using a control group and longer-term follow up are warranted.

Patient Consent Statement: This was an analysis of secondary data used to evaluate the programme, and therefore did not fall within the remit required for ethical review. Each school managed the issue of parental consent differently depending on their own rules. One school felt that it was not necessary to get parental consent as they felt it could be a barrier to some young people attending as they may not want their parents to know. However, most schools sent parents of students who indicated an interest an information letter, and asked parents to email the school with consent.

KEYWORDS
anxiety, intervention, mental health, schools, young people

1 | INTRODUCTION

The number of children and adolescents experiencing anxiety is increasing globally, with UK prevalence estimated at 5%–19% (NHS Inform, 2023). Treatment for anxiety in the National Health Service (NHS) is usually provided by Children and Adolescent Mental Health Services (CAMHS). Between 2019 and 2023, the number of referrals to CAMHS increased by 53%, and many young people remain on waiting lists (Young Minds, 2023). In the UK, the recommended treatment for childhood anxiety is cognitive behavioural therapy (CBT; NHS, 2020; NICE, 2013). However, many young people are not accepted for treatment by CAMHS services, mainly due to them not meeting the diagnostic threshold to be eligible (Crenna-Jennings & Hutchinson, 2018). Given that untreated childhood anxiety is known to persist into adulthood (Schlack et al., 2021), accessibility to early interventions for treating subclinical symptoms of anxiety is vital.

Schools, where young people spend substantial time, may offer an ideal setting for promoting mental health awareness. Anxiety interventions, often rooted in CBT principles, cover topics such as emotional awareness, psychoeducation, and cognitive restructuring (Raising et al., 2017), and prevention programmes target those with symptoms not meeting criteria for a diagnosis. Several school-based CBT prevention programmes have been shown to significantly reduce symptoms of anxiety (Haugland et al., 2020; Dadds et al., 1997; Dadds et al., 1999). Reviews by Hugh-Jones et al. (2021) and Zhang et al. (2023) found that school-based CBT programmes are significantly effective at reducing symptoms of anxiety and depression, with long-term effects. To date, most preventive intervention studies have been conducted in Australia, Canada, and the United States, with very few in the United Kingdom.

The Haven Schools programme offers anxiety support for adolescents aged 11–18. The six-week CBT-based course aims to equip students with a 'toolbox' to help manage symptoms of anxiety.

This pilot evaluation assesses preliminary data of the programme and its impact on mental well-being and anxiety, to help inform future research on school-based prevention interventions.

Implications for Practice and Policy

- Haven Schools, a group-based intervention based largely on cognitive behavioural therapy (CBT) principles successfully reduces anxiety and improves psychological wellbeing. This pilot evaluation shows that it can be delivered successfully in a school by an external organisation.
- Students who have lower anxiety levels are expected to have better rates of school attendance (Finning et al., 2019) which highlights the importance of interventions aiding mental health for young people.
- Recruitment for this evaluation was primarily through self-referral, which indicates that students feel comfortable approaching an external member of staff to participate.
- Haven Schools is a good way of capturing the need for support with anxiety at an early stage, which can reduce the likelihood of anxiety developing into adulthood. Therefore, more budget provision is required for third party solutions to take place in schools.

2 | METHODS

2.1 | Design

This was an independent evaluation of outcomes routinely collected during intervention delivery.

2.2 | Participants

A total of 141 young people aged 12–16 from 11 East Midlands and East of England schools took part in groups and routinely provided data.

2.3 | Measures

The Young Person's Core-10 (YP-CORE-10; Twigg et al., 2009) measures overall psychological well-being, covering anxiety, depression, risk to self, trauma, depression, and functioning. Scores range from 0 to 40, with lower scores indicating higher well-being. This measure has been used in other school-based mental health intervention studies (Harrison & Wang, 2020; Tornivuori et al., 2023).

2.4 | Intervention

The Haven Schools programme was developed by The 267 Project (https://the267project.com/). It includes a number of evidence-based techniques and strategies, such as CBT and mindfulness. The theorised mechanisms of change are that the young people are able to change their thought patterns and behaviour, use breathing techniques and develop self-organisation skills. This leads to increases in their ability to cope, their resilience, self-esteem and self-determination, and therefore improves general anxiety/well-being. It is delivered in schools by a trained facilitator to a maximum of 10 students. The intervention includes six CBT-based sessions covering psychoeducation about stress and anxiety, mental processes, and links between thoughts and behaviour (see Table 1).

2.5 | Procedure

Youth workers from the 267 Project attended school assemblies to talk about the programme, and interested students were asked

TABLE 1 The structure of the Haven Schools programme.

Week	Topic	Tool
Week 1	What is stress/anxiety pt.1? What's happening in our body? The physical process	4–7–8 Breathing Technique
Week 2	What is stress/anxiety pt.2? What's happening in our mind? The inner/mental process	Thinking Traps
Week 3	The link between thoughts and behaviour...How do we control our thoughts?	Thought Observation
Week 4	Circles of control—what can we influence?	Thankfulness Journaling
Week 5	How do we care for ourselves? Stress reduction ideas/tips	Personal Care Boxes
Week 6	One step at a time... Breaking down our goals and celebrating each milestone	Review tools

TABLE 2 Number of young people attending, YP-CORE-10 scores, anxiety, and thoughts of self-harm per session.

	N	Psychological well-being (*M*, *SD*)*	Anxiety (*M*, *SD*)**	Thoughts of self-harm (*M*, *SD*)**
Session 1	104	19.85 (8.21)	2.51 (1.06)	0.95 (1.29)
Session 2	119	19.29 (7.99)	2.34 (1.11)	0.70 (1.15)
Session 3	109	18.32 (8.29)	2.19 (1.12)	0.52 (1.01)
Session 4	94	18 (8.52)	2.15 (1.11)	0.51 (1.09)
Session 5	68	18 (8.38)	2.03 (1.16)	0.53 (1.07)
Session 6	58	17.43 (8.31)	1.95 (1.11)	0.47 (0.99)

Abbreviations: *M*, mean; *SD*, standard deviation.

*Possible score range of 0–40.

**Possible score range of 0–4.

to contact a designated staff member. Some students were recommended to attend by staff members.

This evaluation did not require consideration by an ethics committee, as it reports secondary analysis of routinely collected data on the development and running of a programme. Risk assessments were completed by staff who facilitated groups and comprehensive safeguarding procedures were followed as required by each school.

Young people took part in six weekly sessions, each lasting 1 hour, which occurred during school hours between January 2019 and May 2022. Before each session, students completed the YP-CORE-10 assessment. There were 13 intervention groups in total.

2.6 | Data analysis

Raw data was stored on Excel and analysed using STATA version 15 (StataCorp., 2017). A psychological well-being score, anxiety score and self-harm score was computed for each student per session and the data included the number of sessions attended, and their first and last session scores. Psychological well-being was measured through the overall YP-CORE-10 score; anxiety was measured through question 1 of the YP-CORE-10; and self-harm was measured through question 4 of the YP-CORE-10. As not all students' first session was Session 1, or last session was Session 6, data were analysed in two ways: to test the difference between Sessions 1 and 6 for those who attended both these sessions; and the difference between all participants' first and last session scores.

3 | RESULTS

Table 2 displays attendance, mean YP-CORE-10 scores, mean anxiety scores and mean self-harm thoughts scores for each of the six sessions.

3.1 | Attendance

Ten students attended just one session (and are therefore excluded from comparisons across sessions) and 26 (18%) students attended all six sessions. The mean number of sessions attended was 3.99 (*SD* = 1.53). Reasons for students' failure to attend were not routinely

collected. The information available indicates that, in some cases, it was due to school avoidance arising from their anxiety. In other cases, students felt the sessions were not for them.

3.2 | Psychological well-being

Psychological well-being was computed using the overall score on the YP-CORE-10. From Session 1 ($M = 19.85$, $SD = 8.21$) to Session 6 ($M = 17.43$, $SD = 8.31$), there was a small reduction. A paired *t*-test was run for the 49 participants who attended both Session 1 ($M = 19.86$, $SD = 8.82$) and Session 6 ($M = 16.84$, $SD = 8.66$) to examine the change in the well-being score. There was a significant reduction of 3.02 (95% CI, 0.74–5.30), $t(48) = 2.66$, $p < .001$.

A paired *t*-test was also run to determine whether there was a statistically significant mean difference between the 131 participants' first and last well-being scores. The scores showed a significant reduction between their first ($M = 19.85$, $SD = 8.06$) and last ($M = 17.46$, $SD = 8.07$) sessions. The mean score decreased by 2.39 (95% CI, 1.19–3.59), $t(130) = 3.94$, $p < .001$.

A linear regression was performed to investigate the degree to which well-being at the start (first session scores) influenced the difference in scores between first and last session for 131 students. This was significant ($F[1, 129] = 29.06$, $p < .001$), and first well-being score accounted for 18% of the variance in score difference ($R^2 = 0.18$). Each one-point increase in the first session score predicts a .36 reduction in the YP-CORE-10 scores.

Comparing the results of those who completed all sessions ($n = 26$) and those who did not ($n = 105$) shows reduced mean scores on the CORE10 for those attending six sessions ($M = 18.85$, $SD = 10.04$) compared to those attending fewer than six ($M = 20.10$, $SD = 7.53$). This difference was not significant ($t = 0.71$, $p = .48$).

3.3 | Anxiety

Question 1 of the YP-CORE-10 measures anxiety. Comparing the scores for the 49 participants who attended both Session 1 and Session 6 shows a significant reduction in anxiety (Session 1 $M = 2.43$, $SD = 1.10$; Session 6 $M = 1.82$, $SD = 1.11$) of 0.61 (95% CI, 0.31–0.91), $t(48) = 4.13$, $p < .001$.

Comparing the first and last session scores for all 131 participants who attended more than one session shows a significant reduction in anxiety (First session $M = 2.44$, $SD = 1.08$; Last session $M = 2.14$, $SD = 1.32$) of 0.23 (95% CI, 0.06–0.54), $t(130) = 2.43$, $p < .05$.

A comparison of the anxiety scores between those who completed all sessions ($n = 26$) and those who did not ($n = 105$) shows reduced mean scores for those attending six sessions ($M = 2.23$, $SD = 1.21$) compared to those attending fewer than six ($M = 2.49$, $SD = 1.05$). This difference was not significant ($t = 1.08$, $p = .28$).

3.4 | Self-harm

Question 4 of the YP-CORE-10 relates to self-harm. Comparing the scores for the 49 participants who attended both Session 1 and Session 6 shows a significant reduction in thoughts of self-harm (Session 1 $M = 0.80$, $SD = 1.22$; Session 6 $M = 0.45$, $SD = 0.98$) of 0.35 (95% CI, 0.08–0.61), $t(48) = 2.62$, $p < .001$.

Comparing the first and last session scores for all 131 participants who attended more than one session shows a significant reduction in thoughts of self-harm (First session $M = 0.90$, $SD = 1.27$; Last session $M = 0.56$, $SD = 1.00$) of 0.34 (95% CI, 0.18–0.51), $t(130) = 4.17$, $p < .001$.

4 | DISCUSSION

With rising youth anxiety and limited NHS services, there is a need for support beyond the NHS. Haven Schools is a short group intervention designed to reduce anxiety, delivered during the school day. In this evaluation, it was delivered to 141 students across 11 schools, and findings indicated a significant increase in well-being between the first and last sessions, as well as significant reductions in anxiety and thoughts of self-harm. Furthermore, lower well-being at baseline significantly predicted greater well-being score improvements over the programme.

Worryingly, the mean YP-CORE 10 score at the first session was higher than that reported in some studies including young people receiving support from a clinical service. For example, O'Reilly et al. (2016) and Twigg et al. (2016) reported mean baseline scores of 18.3 and 19, respectively, for their clinical samples; ours was 19.85. Unfortunately, we lack data on any participants' referrals to services. Many of the groups were conducted during the pandemic, which may explain elevated scores, as anxiety rose in this population during COVID-19 (Nearchou et al., 2020).

The benefits of delivering in schools are that the intervention is more accessible and delivered in a familiar environment. We recognise that schools are very busy and frequently under-resourced; however, Haven Schools is delivered by youth workers and research has shown that using non-school staff is also beneficial (van Starrenburg et al., 2017). Other school-based anxiety programmes have been shown to be effective in other countries (see Hugh-Jones et al., 2021). Many aspects of the programme would apply and it would be possible to deliver the intervention in school settings outside of the UK.

While the results are promising, the lack of a control group prevents us ruling out natural improvements over time (e.g., reduction in stress, life circumstances). Furthermore, there was no longer-term follow up to see if the benefits were maintained after the course had finished. The findings indicate that there is no significant difference in final mean well-being or anxiety scores between those who attended all six sessions and those who did not. This suggests young people may see improved scores even if they are unable to attend all sessions. Lastly, Haven Schools targets anxiety, and the YP-CORE

10 is a general well-being measure which includes just one question focusing on anxiety, which may not have captured the full impact on students' anxiety. These limitations could be addressed by conducting a randomised controlled trial, delivering the intervention in a larger number of schools over a variety of locations. Using specific outcomes measuring anxiety would allow a comparison of those receiving Haven Schools and those in a control group for a more robust evaluation of the programme and its longer-term impact.

In conclusion, the data shows that students' well-being significantly improved after attending Haven Schools. It has the potential to be a low-cost early intervention that prevents the development of more intractable ongoing problems for young people as they grow into adulthood. Further research is needed to determine generalisability, attribute improvements to the intervention, and assess the sustainability of the improvement.

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CONFLICT OF INTEREST STATEMENT

No authors declare conflicts of interest.

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