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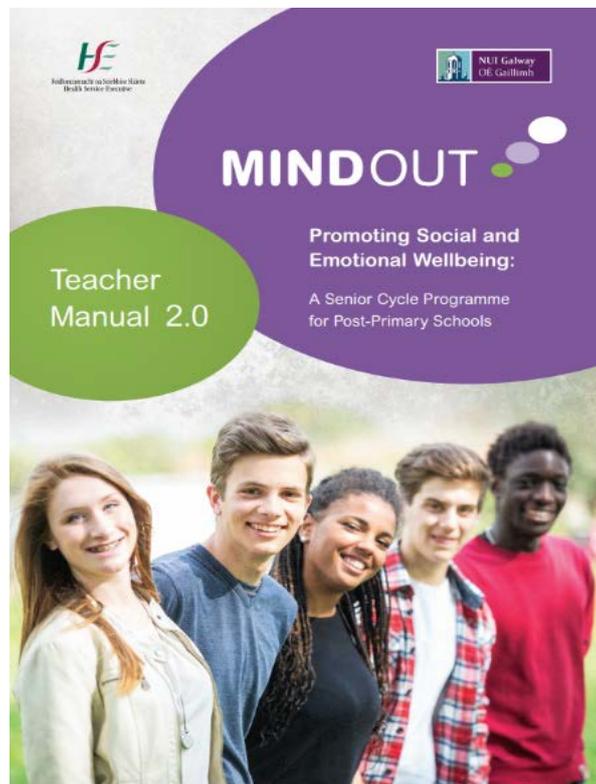


EXECUTIVE SUMMARY REPORT

An Evaluation of the MindOut Programme in Disadvantaged Post-Primary Schools

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Key Messages

This summary report describes the updated findings on the evaluation of the MindOut social and emotional wellbeing programme for senior level students in Irish post-primary schools. In 2017, a large-scale evaluation study was undertaken to evaluate the impact of the revised MindOut programme for students aged 15-18 years in designated disadvantaged (DEIS) post-primary schools nationally. Employing a cluster randomised controlled trial design, a total of 32 DEIS schools were randomly allocated into either the intervention (receiving MindOut) or control (no-intervention) group. Data were collected from students prior to programme delivery (N=675), immediately following implementation (N=497) and at 12-months follow-up (N=429). Students' outcomes were assessed in relation to their social and emotional wellbeing, academic outcomes and mental health and wellbeing and data were compared between the two groups over time.

The main findings from this study are:

- Students in this study, who were identified as disadvantaged, reported less favourable mental health and wellbeing outcomes at baseline when compared to the general population of adolescents as reported in large-scale national and international studies, suggesting that these students demonstrate an increased need to engage with school-based interventions such as MindOut.
- Following programme implementation at post-intervention, significant improvements were found for students who participated in the MindOut programme compared to those who did not. These improvements related to their social and emotional skills, with reduced suppression of emotions and the use of more positive coping strategies (reduced avoidance coping and increased social support coping). Students who received the MindOut programme were also found to have improved mental health, reporting reduced levels of stress and depression at post-intervention, and female students also reported significantly reduced levels of anxiety.
- At 12-months follow-up, improvements in intervention students' coping skills (social support' and 'avoidance' coping) were sustained. While reduced levels of depression and stress were not sustained, significant improvements in the intervention students' reported levels of mental wellbeing were evident.
- At post-intervention, students in the intervention group demonstrated improvements in self-reported academic outcomes in both 'Maths' and 'English'. However, these outcomes were not sustained at 12-month follow-up and teacher-reported data on students' academic outcomes did not reflect these same improvements.
- Teachers and students reported a very positive experience of the programme, which they found to be engaging, age-appropriate and culturally relevant. A majority of students (63.8%) rated their experience of the programme as good/very good and teachers rated the programme highly out of ten (M=7.8, SD= .62).

Introduction

The MindOut programme, which was updated in 2015, is comprised of twelve sessions which are designed using interactive and student-centred approaches to engage students in promoting their social and emotional wellbeing. The Health Promotion Research Centre (HPRC) at NUI, Galway was commissioned by the Health Promotion and Improvement Department, Health Service Executive (HSE) to evaluate the implementation of the revised MindOut programme in disadvantaged post-primary schools. Further details of the programme development and the evaluation design may be found in Dowling, Clarke & Barry (2016) and in Dowling & Barry (2017).

Aims

The key aims of the evaluation are to assess:

- The programme impact on students' (i) social and emotional skills development; (ii) overall mental health and wellbeing; and (iii) academic performance immediately following implementation and at 12-month follow-up.
- The views of the participants on the perceived benefits of the programme.
- Teachers' experience of delivering the programme and their attitudes regarding the impact of the programme on themselves, the young people and the wider school community.
- The process of implementation and perceived gains from each session.
- The effects of different levels of implementation on the process of programme delivery and on the outcomes achieved.

Methods

This study employed a cluster randomized controlled trial design (RCT) with schools acting as the unit of randomization. This intervention study employs a mixed-methods design with the use of both quantitative and qualitative methods to assess programme outcomes and the implementation process. Baseline (T1) measures were taken approximately one to two weeks before programme implementation within each school, post-intervention (T2) measures were collected immediately following programme implementation (12 weeks) and follow-up measures (T3) were collected 12 months post-intervention. Process measures were employed during and after programme implementation.

Sample

A total of 34 disadvantaged (DEIS) schools were recruited for the study and these schools were randomly assigned to either the intervention or control group. In order to qualify for selection, the schools had to be assigned the designated disadvantage status by the Department of Education & Skills, be at post-primary level and English-speaking. A total of 185 schools met these criteria. Students attending the participating schools who were in 4th/Transition Year ¹ (15-17 years) or 5th year (16-18 years) at baseline were the target population. Following recruitment, two schools within the control group dropped out of the study leaving a total of 675 students from 32 schools (15 control; 17 intervention) participating at baseline. Of the 675 students that participated in the study at baseline, 497 were present at post-intervention and 429 were present at post-intervention. Therefore, the analyses were only completed with students who were present for at least two of the three time points. The process of recruitment can be seen in Appendix 1.

Measures

The evaluation of the programme was divided into two main sections:

- (i) Measures to evaluate the impact of the programme (Outcome Measures)
- (ii) Measures to evaluate the process of implementation (Process Measures)

(i) Programme Impact

Outcome data were collected through paper questionnaires, which were designed to reflect the content of the core components of the MindOut programme. Items were drawn from a number of published psychometric scales and questionnaires and the following measures were selected based on a number of selection criteria including: age-appropriateness, length, cost, psychometric properties and sensitivity to change. All measures were piloted with a group of Irish students to identify any problematic questions and to ensure the questions were culturally appropriate for Irish adolescents.

¹ Transition Year (TY) - is a one-year optional program which acts as a bridge between the Junior Certificate program (3rd year), where learning happens in a highly-structured environment; and the Leaving Certificate program (6th year), where greater responsibility for students' own learning and decision making is required. It gives students space to learn, mature and develop without the presence of exam pressures (DES, 2018; NCCA, 2018).

Social and Emotional Skills:

- *The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965)*
- *The Emotional Regulation Questionnaire (ERQ; Gross & John, 2003)*
- *The Trait Meta-Mood Scale -24 (TMMS-24; Salovey et al., 1995; Fernández-Berrocal et al., 2004)*
- *Coping Strategy Indicator (CSI-15, Amirkhan, 1990; Ellis, 2004)*
- *Self-Efficacy Questionnaire for Children (SEQ-C, Muris, 2001)*
- *Adolescent Interpersonal Competence Questionnaire (AICQ; Buhrmester, 1990)*
- *The Making Decisions in Everyday Life Scale – (DM; Mincemoyer & Perkins, 2003; Cater et al., 2010)*

Academic Performance:

- *The Attitudes towards School Scale (ATS; Anderson, 1999)*
- *Grades – Student and teacher reported student grades for Maths, English and Irish*

Overall Mental Health and Wellbeing:

- *The Depression, Anxiety, Stress Scale (DASS-21, Lovibond & Lovibond, 1995)*
- *The Warwick Edinburgh Mental Well-being Scale (Tennant et al., 2007)*

(ii) Programme Implementation

Process measures were used to evaluate users' experiences of the programme and implementation factors.

Teachers' experience of the programme:

- *Teachers' Weekly Reports*
- *Telephone Interviews*

Students' experiences of the programme:

- *Student Review Questionnaire*
- *Participatory-based Workshops*

School Context:

- *School Ethos Questionnaire*

Additional Implementation Measure:

- *Classroom Observations*

Findings

The study findings are presented in two main sections; the evaluation of the impact of the programme on student outcomes and evaluation of the process of programme implementation. Programme impact was analysed using a linear mixed model (LMM) framework accounting for the clustered nature of the data while controlling for both baseline and gender differences.

(i) Findings on Programme Impact

Demographics

At baseline, participants included either Transition Year or 5th year students ranging from 15 to 18 years of age ($M=15.87$, $SD= .683$). There were almost equal numbers of males ($n=247$; 49.7%) and females ($n=250$; 50.3%) who took part.

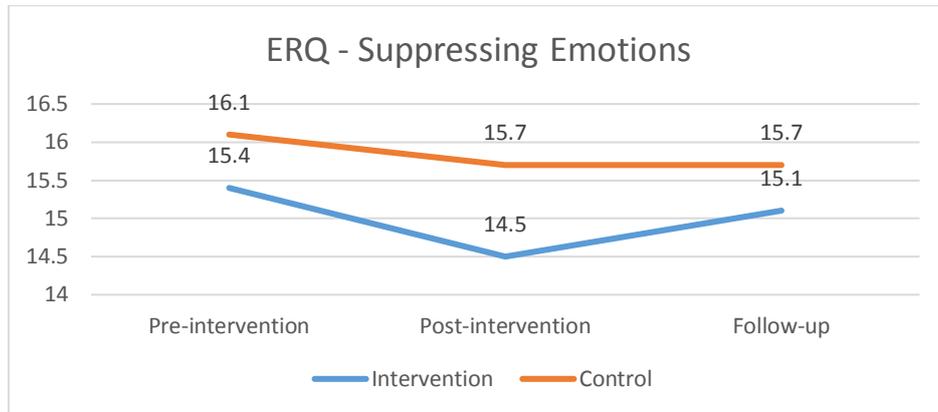
Baseline Analysis

Of the total sample at baseline, 57% of adolescents were classified as having normal levels of stress, 35% normal anxiety levels and 48% normal depression, based on DASS-21 scores. The number of adolescents who scored high and were categorized as either ‘severe’ or ‘very severe’ range was 15% for stress, 34% for anxiety and 20% for depression respectively. Males reported more favourable mental health outcomes when compared to females across all three categories.

Immediate impact of the programme

Students’ emotional wellbeing: The evaluation results indicate that the programme had an overall significant positive impact on students’ emotional wellbeing, with students in the intervention group scoring 0.244 points lower at post-intervention (95% CI -0.45, -0.041; $p=0.035$) in comparison to control school students as measured by the *Emotional Regulation Questionnaire (ERQ)*. Mean scores for the intervention and control group at each time point can be found in Figure 1.

Figure 1: Pre-, post-intervention and 12 months follow-up mean scores for suppressing emotions (ERQ)



Students' coping skills: Students in the intervention group were significantly more likely to report increases in positive 'Social Support' (0.812 increase, 95% CI 0.02, 1.60; $p=0.044$) coping strategies and decreases in negative 'Avoidance' (1.43 decrease, 95% CI 0.64, 2.22; $p < 0.001$) coping strategies, as measured by the *Coping Strategy Indicator*, in comparison to those students who did not participate in the programme. Mean scores for the intervention and control group at the three time points can be found in Figures 2 & 3.

Figure 2: Pre-, post-intervention and 12 months follow-up mean scores for avoidance (CSI)

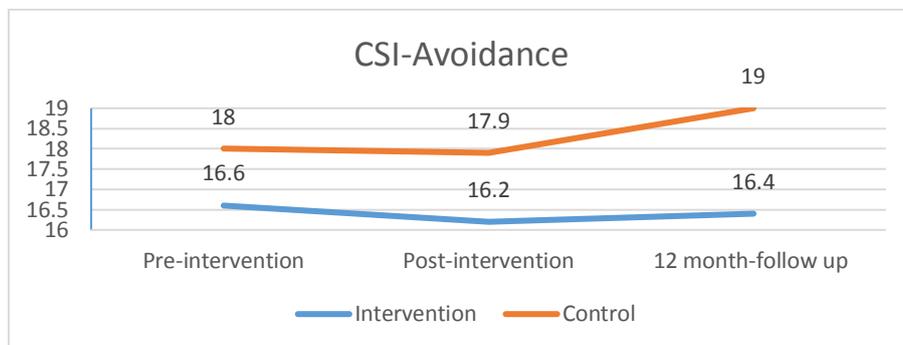
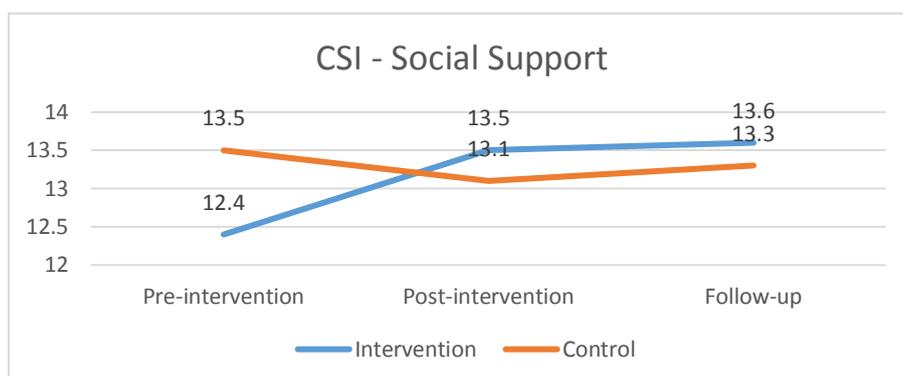


Figure 3: Pre-, post-intervention and 12 months follow-up mean scores for social support (CSI)



Academic Outcomes: The evaluation results on the impact of the programme on students' academic outcomes revealed that students who participated in the programme were more likely to self-report significant increases in their gain scores in English (3.16, 95% CI .08, .38; $p=.004$) and Maths (2.45 95% CI .03, .38; $p=.022$) between T1 to T2 in comparison to students in the control group.

Mental Health and Wellbeing: The evaluation results suggest that the programme had an overall significant positive effect on students' mental health in relation to their 'Stress' (1.63 decrease 95% CI -2.97, -0.30; $p=0.017$) and 'Depression' (1.58 decrease 95% CI -3.01, -0.15; $p=0.030$), scores as measured by the *Depression Anxiety Stress Scale* (DASS-21), in comparison to the control group. Although the change in anxiety scores was non-significant between control and intervention groups at post-intervention, female intervention students showed a significant decrease in their anxiety scores in comparison to females within control schools (-2.02 decrease 95% CI -5.89, -.078; $p=0.044$). Mean scores for the intervention and control group at the pre-, post- and follow-up can be found in Figures 4 & 5.

Figure 4: Pre-, post-intervention and 12 months follow-up mean scores for Stress (DASS-21)

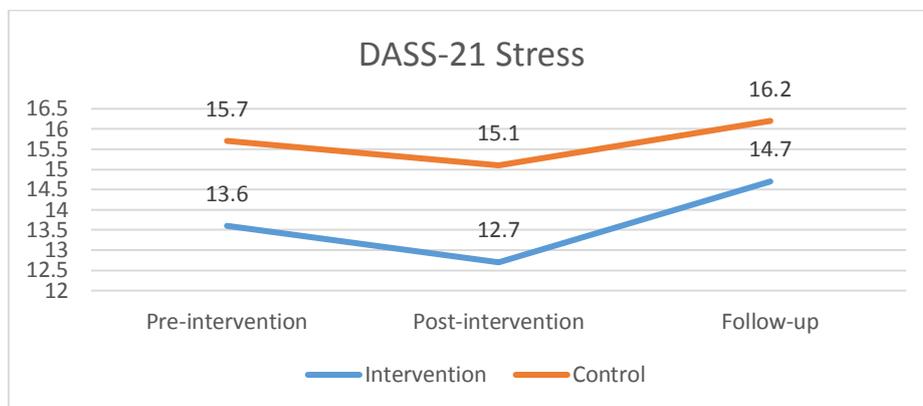
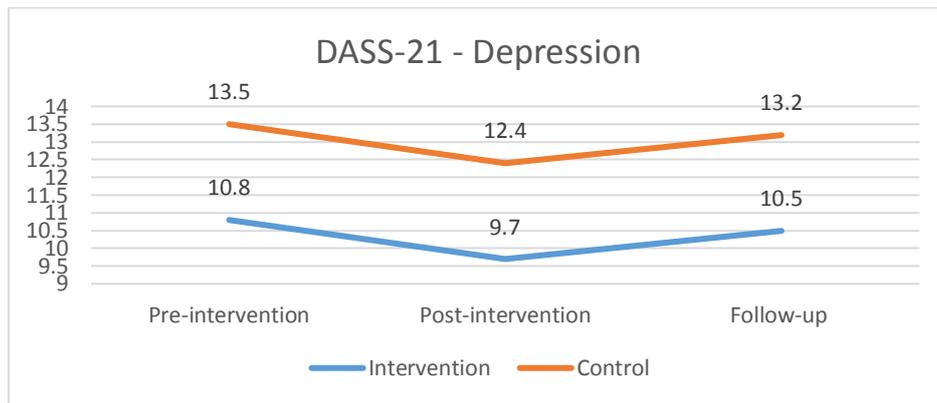


Figure 5: Pre-, post-intervention and 12 months follow-up mean scores for Depression (DASS-21)

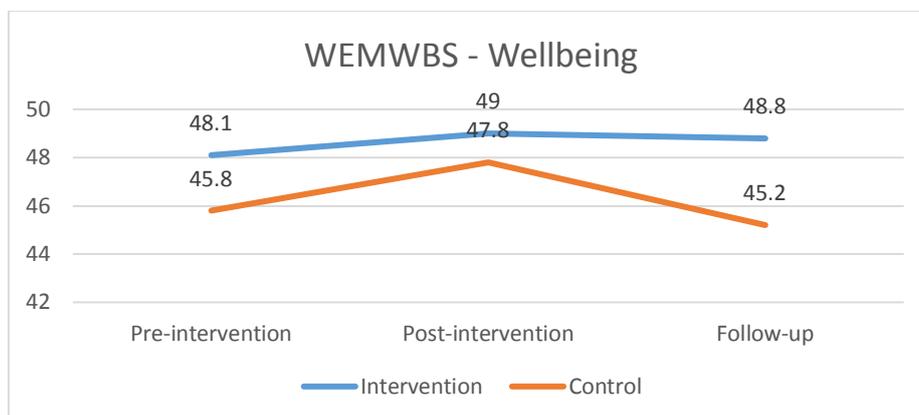


Long-term Impact of the Programme (Preliminary Analysis)

Students' coping skills: At 12-month follow-up students in the intervention group sustained their improvements in their coping skills demonstrating significant improvements in both 'Social Support' (2.26 increase, 95% CI 0.095, 1.87; $p=0.031$) and 'Avoidance' (3.02 decrease, 95% CI -2.72, -.52; $p = 0.005$) coping strategies, as measured by the *Coping Strategy Indicator*, in comparison to those students who did not participate in the programme. Mean scores can be found in Figures 3 & 4.

Mental Health and Wellbeing: At 12-month follow-up students in the intervention group reported significantly higher wellbeing (2.35 increase, 95% CI .361, 5.39; $p=0.027$) as measured by the *Warwick Edinburgh Mental Well-being Scale*, in comparison to students in the control group. Improvements for the mental health outcomes 'stress' and 'depression' were not sustained at 12-month follow-up. Mean scores for the intervention and control group at the three time points can be found in Figure 6.

Figure 6: Pre-, post-intervention and 12 months follow-up mean scores for Wellbeing (WEMWBS)



(ii) Findings on Programme Implementation

Teachers' experiences of the programme:

In general, the teachers were very positive about the programme and this was apparent both from the *Weekly Reports* and the telephone interviews. Teachers found the programme to be engaging, age-appropriate and culturally relevant for their students and also acknowledged that the programme was very user-friendly. Teachers reported that they felt that had noticed visible differences to a number of students' social and emotional skills e.g., self-esteem, support-seeking, ability to manage emotions, relationship skills and empathy. Teachers also acknowledged that they themselves had benefitted from the programme as they gained a better understanding of their students and an awareness of the issues they are facing in their lives. Teachers also said that they felt their own relationships with their students had strengthened as a result of the programme. All of the intervention school teachers stated that they would like to deliver the programme again, and that they would recommend the programme to other teachers and schools in the future. Teachers rated each of the programme sessions on a scale of 1 to 10 (1 being poor and 10 being excellent) and the total mean score for all the twelve sessions combined was $M=7.8$ ($SD=.62$).

Teachers were asked to report on their level of implementation of the activities in each of the twelve sessions and a mean adherence score was calculated. A total of 64.7% ($N=11$) of schools completed 80-100% of the programme's activities; 17.6% ($N=3$) of schools completed 60-80% of the activities; and 17.6% ($N=3$) of schools completed 40-60% of the activities (1 school completed <50% activities). Further analysis will be conducted on how different levels of implementation impact on achieving positive outcomes for students.

Students' experiences of the programme:

Overall, the students were very positive about the programme. A majority of students (64%) rated their overall experience as being good or very good. Intervention students reported favourable experiences of the programme in terms of its perceived relevance, helpfulness, ease of understanding and level of interest. The main perceived benefits from the programme that students reported included improved ability to: (i) manage emotions; (ii) identify supports; (iii) manage thoughts; (iv) use coping skills; and (v) show empathy towards others, as well as greater (v) confidence and self-esteem.

Some of the comments provided by teachers and students on their experience of the programme can be found in Appendix 2 & 3.

Discussion

The students in this study, who were identified as disadvantaged, reported less favourable mental health and wellbeing outcomes at baseline when compared to the general population of adolescents as reported in large-scale international studies; on the DASS-21 scale mean depression scores of 12.06 were reported in comparison to 8.3; mean anxiety scores of 12.7 compared to 7.0; mean stress scores of 14.5 compared to 9.9 in a national sample of 16-17 year old Irish students (n=6085; Dooley and Fitzgerald, 2012); and mean mental wellbeing scores on the WEMWBS scale of 47.2 compared to 48.8 in 13-16 year old students in the UK (n=1650; Clarke et al., 2011). The baseline findings suggest that students from disadvantaged backgrounds have lower levels of mental health and wellbeing and, therefore, demonstrate an increased need to engage with school-based social and emotional learning programmes such as MindOut.

Following completion of the programme at post-intervention, significant improvements were detected in students' social and emotional skills including; reduced suppression of emotions; use of more positive coping strategies (reduced avoidance coping and increased social support coping); and improved mental health and wellbeing (reduced levels of stress and depression). At 12-month follow-up, improvements in students' social support' and 'avoidance' coping skills were sustained. However, significant improvements to reported levels of wellbeing were also evident for intervention students at 12-month follow-up only. Improvements in relation to depression and stress were not maintained at 12 months follow-up, however, given that many students were preparing for their mocks and Leaving Cert exams it is likely that this could have impacted on their higher reporting of stress, anxiety and depression levels.

The findings at post-intervention demonstrated improvements for the intervention group in self-reported academic outcomes in both 'Maths' and 'English'. However, teacher reports of academic outcomes showed non-significant differences between the two groups at post-intervention. No significant improvements for academic outcomes were found at 12-month follow-up from self-report and teacher-report measures. Given the limited access to standardised tests in Ireland, it is difficult to measure academic outcomes and, therefore, to determine the impact SEL programmes have on improving these outcomes.

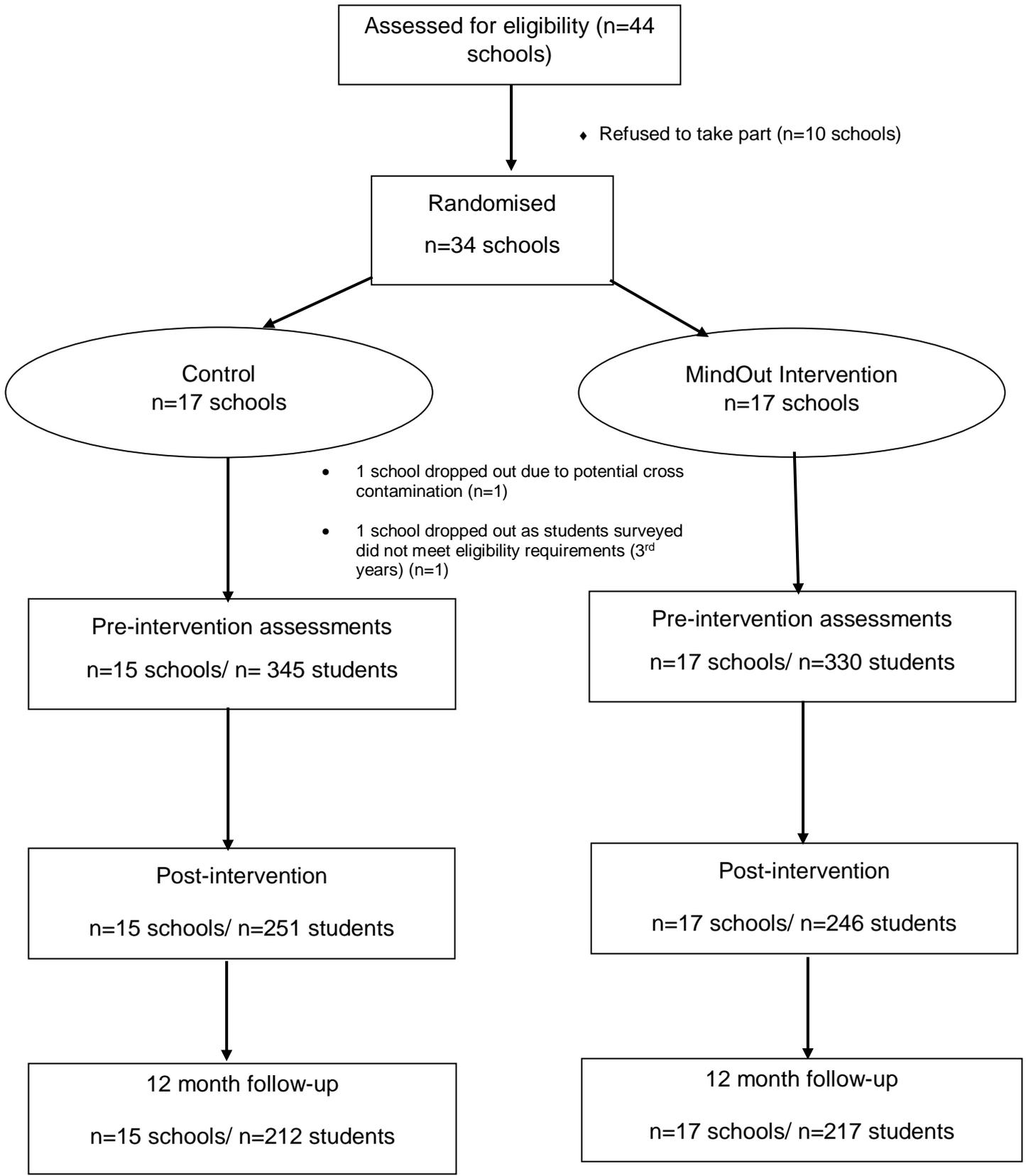
Teachers who participated in the evaluation rated the MindOut programme highly, and commented on its user-friendliness, engaging and relevant content, active teaching strategies as well as its age- and cultural-appropriateness. Students who participated in the programme also reported positive experiences in learning a range of social and emotional skills. There was strong support from both teachers (100%) and students (69.5%) for implementing MindOut to future groups of young people.

Conclusions

The revised MindOut programme was successfully implemented by teachers in DEIS post-primary schools in Ireland and the programme was well received by both students and teachers alike. The study supports the implementation of universal social and emotional learning programmes with older adolescents (15-18 years) and demonstrates positive programme impacts on students' social and emotional skills including; reduced suppression of emotions, use of more positive coping strategies [reduced avoidance coping and increased social support coping], and mental health and wellbeing with reduced levels of stress and depression. The positive improvements to coping strategies detected between pre- and post- intervention were also evident at 12-month follow-up in both avoidance coping and social support coping. Additionally, new improvements were found over time in reported levels of mental wellbeing at 12-month follow-up which were not present at post-intervention.

The findings from this study demonstrate that while the MindOut programme had a positive impact on students that participated in the programme, there is a need for continued support for strengthening these skills to ensure the long-term sustainability of outcomes. It is important that schools embed the core competencies taught within the MindOut programme into their whole-school practices so that social and emotional wellbeing is continuously supported for senior level students. A more detailed analysis of the findings is underway, which will investigate the different levels of implementation and how impacted on students' outcomes.

Appendix 1: CONSORT diagram of recruitment of schools and students



Appendix 2: Teachers' feedback on their experience of the MindOut programme

"It was definitely like a brilliant resource. I've never had a pack like it, I did say that the day of the training. The resources were second to none, everything was there handy, you know easy, accessible, etc."

"I loved delivering the programme, I thought it was really relevant to students. I thoroughly enjoyed delivering it. The response from students was really good. We had our graduation ceremony last week and one of the things that students spoke to me about that they really liked from Transition Year was the MindOut programme and even in the presentations when they were presenting to parents, it was one of the things that they spoke quite a lot about, that they got a lot out of it."

"I did not realise the extent of the stress and everything that the Transition Years are going throughbut they really opened my eyes and I have to say I kind of developed a different attitude towards the TYs."

"I found the programme very easy to deliver in that it was very well put together. There was not much preparation needed, everything was there, the resources were there and all of the methodologies were quite well thought out."



"I feel really strongly that this is something we should persist with and continue with and keep developing. There are so many good practices in here and it is also pitched in the right way for the Irish culture. A lot of other programmes come from a different culture and you've got to translate them in a sense whereas this one is up-to-date, it speaks their language and it addresses the big stuff in a good way."

Appendix 3: Students' feedback on their experience of the MindOut programme



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