

Effectiveness of school mental health awareness interventions

Universal approaches in English secondary schools

February 2025



Government Social Research

Authors:

Jessica Deighton, Abigail Thompson, Neil Humphrey, Emma Thornton, Christopher Knowles, Praveetha Patalay, Kyann Zhang, Sarah Evans-Lacko, Daniel Hayes, Anna March, Rosie Mansfield, Joao Santos, Emre Deniz, Paul Stallard, Emma Ashworth, Bettina Moltrecht, Kirsty Nisbet, Emily Stapley, Carla Mason, Jessica Stepanous & Jan Rasmus Boehnke.

Acknowledgements:

We would like to thank all schools, pupils and parents who engaged with or participated in the programme. We would also like to thank the advisory group members, members of the data monitoring and ethics committee and members of the trial steering committee, past and present, who have supported the programme at any time in its delivery.

Advisory Group: Matthew Bawden (Lady Manners School, Bakewell), Tom McBride (formerly Early Intervention Foundation), Aleisha Clarke (formerly Early Intervention Foundation), Rebecca Cramer, Mina Fazel (University of Oxford), Ann Hagell (Independent Advisor, formerly Association for Young People's Health), Pooky Knightsmith (formerly Children and Young People's MH coalition), Kerry MacFarlane (Corpus Christi Primary School Bournemouth), Steve Mallen (MindEd Trust), Emma Murray (Seven Sisters Primary School), Dorothy Newbury-Birch (Teesside University), Ian Plowman (Rushmere Hall Primary School), Emma Rigby (Association for Young People's Health), Miriam Sorgenfrei (formerly Early Intervention Foundation), Megan Stafford (formerly University of Roehampton), David Torgerson (University of York).

Data Monitoring and Ethics Committee: David Torgerson (Chair, University of York), Mina Fazel (University of Oxford), Steff Lewis (University of Edinburgh).

Trial Steering Committee: Crispin Day (Chair, Kings College London), Tim Croudace (University of Dundee), Peter Fonagy (UCL), Nancy Hey (formerly What Works for Wellbeing), Eilis Kennedy (Tavistock and Portman NHS Foundation Trust), Caroline Murphy (Kings College London), Russell Viner (UCL).

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Summary

Funded by the Department for Education, Education for Wellbeing was one of England's largest research programmes testing the effectiveness of school-based mental health interventions. The aim of the programme was to evaluate pioneering ways of supporting the mental wellbeing of pupils. It was conducted in three waves between 2018 and 2024.

The programme was split into two trials: AWARE (Approaches for Wellbeing and Mental Health Literacy: Research in Education), tested in secondary school settings, and INSPIRE (INterventions in Schools for Promoting Wellbeing: Research in Education), tested in both primary and secondary school settings.

This briefing focuses on the results for the AWARE trial which tested two established school-based curriculum interventions that have been developed and trialled elsewhere in the world: Youth Aware of Mental Health (YAM) and The Mental Health and High School Curriculum Guide (The Guide). Specifically the trial explored the impact of these interventions in the short and longer term on young people's self-reported emotional difficulties and intentions to seek help in future if experiencing mental health problems (intended help-seeking). The trial was conducted with 12,166 pupils across 153 schools.

The AWARE trial found:

Youth Aware of Mental Health

- Youth Aware of Mental Health (YAM) had no overall statistically significant impact on young people's emotional difficulties at the short-term follow up, 3 to 6 months after intervention delivery (the primary outcome explored in this study). However, several schools asked to deliver YAM did not implement the intervention. Further analysis suggested that YAM did lead to an initial reduction in emotional difficulties, directly after delivery, in schools that were able to implement the intervention.
- Unexpectedly, we found that YAM led to increased emotional difficulties at the long term follow up, 9-12 months after intervention delivery.
- Further analysis looking at different, specific groups of young people participating also suggested that YAM was associated with increased emotional difficulties for young people in schools reporting no prior provision of universal mental health programmes.
- Economic analysis, based on measures of health-related quality of life, not the outcome measures reported above, concluded that YAM had a low probability of being considered cost-effective at the first follow-up but a higher probability of being considered cost-effective at the second follow-up.

• **Recommendations:** Due to the risk of increasing emotional difficulties found, this study does not recommend the delivery of YAM in English secondary schools until more is known about how to mitigate risk of longer term harm. Future studies should further explore the long-term outcomes of this intervention.

The Guide

- The Guide had a statistically significant impact on young people's intended helpseeking at the short-term follow up (the primary outcome explored in this study, 3 to 6 months after intervention delivery).
- Implementation findings suggest receiving all sessions of The Guide (as opposed to fewer sessions) further amplified the benefits of the intervention.
- In the short term, The Guide was associated with improvements on some other outcomes (attitudes towards mental health, knowledge of mental health and mental health behaviours). However, it was also associated with increased emotional difficulties and decreased life satisfaction at the long term follow up (9 to 12 months after intervention delivery).
- Economic analysis, based on health-related quality of life measures, concluded that The Guide has a low probability of being considered cost-effective.
- **Recommendations:** Although The Guide did show initial positive impacts on a range of outcomes, the potential negative long terms effects mean this study does not recommend The Guide as an intervention for use in English secondary schools, at least until further research can explore mechanisms for these negative impacts and how they can be protected against. As with YAM, future studies should further explore the long-term outcomes of this intervention.

Other briefings are also available for the research programme which report on:

- Effectiveness of school mental health and wellbeing promotion: Universal approaches in English primary and secondary schools
- School staff perspectives on approaches to mental health promotion: Experiences of delivering universal approaches in English primary and secondary schools
- Pupil perspectives on approaches to school wellbeing promotion: Experiences of Mindfulness-based exercises and Relaxation techniques
- Pupil perspectives on school mental health literacy interventions: Experiences of three programmes in English primary and secondary schools.

Full technical details of the study are available in the following document:

• Education for Wellbeing: Technical report

These results are also available in the following journal articles:

- School-based intervention study examining universal approaches for wellbeing and mental health literacy of pupils in Year 9 in England (AWARE): a multi-school, parallel group, cluster-randomised controlled trial.
- Promoting mental health and wellbeing in schools: examining mindfulness-based exercises, relaxation practices and Strategies for Safety and Wellbeing in English primary and secondary schools (INSPIRE): a multi-school, cluster randomised controlled trial.
- Session delivery completion as a modifier of treatment effects of universal mental health literacy curricula on emotional difficulties and help-seeking in primary and secondary schools: complier average causal effect estimation in the AWARE and INSPIRE cluster randomized trials.
- Implementation dosage as a modifier of treatment effects of universal mindfulness and relaxation interventions on emotional difficulties in primary and secondary schools: complier average causal effect estimation in the INSPIRE cluster randomized trial.
- A qualitative study of English school children's experiences of two brief, universal, classroom-based mental health and wellbeing interventions: Mindfulness and Relaxation.
- A qualitative investigation of children and young people's experiences of three universal classroom-based mental health literacy interventions in England.
- A qualitative study of school staff experiences of implementing five universal mental health interventions in England.
- Cost-effectiveness of school-based interventions for well-being and mental health literacy of pupils in Year 9 in England: the AWARE cluster randomised controlled trial.
- Cost-effectiveness of Mindfulness, Relaxation, and Strategies for Safety and Wellbeing in English primary and secondary schools: the INSPIRE cluster randomised controlled trial.

AWARE in detail

The aim of the AWARE trial was to assess the impact of two interventions that have already been developed and found to be effective in other countries (Kutcher et al., 2015; Wasserman et al., 2015) to see if they might be effective in improving mental health related outcomes in young people in English schools. The trial was conducted in three waves between 2018 and 2024. For each wave, baseline data were collected September to October; random allocation occurred post-baseline at the end of October or beginning of November; training of teachers in interventions (where relevant) occurred in November and December and interventions were delivered between January and April. Follow up data were collected at first follow up (3-6 months after the start of intervention delivery) and second follow up (9-12 months post intervention). As part of AWARE, schools were randomly allocated to one of the following approaches:

- Youth Aware Mental Health (YAM): A set of five lessons, delivered by a trained professional from outside of the school, using role play designed to improve pupils' understanding of mental health and reduce suicide rates. Developed in Sweden and America, YAM encourages pupils to share their own ideas about how to maintain good mental health and how to help each other to find ways to resolve every-day dilemmas.
- The Mental Health and High School Curriculum Guide (The Guide): A teacher training programme developed in Canada and adapted for English schools during the study. The Guide develops teachers' understanding of mental health and trains them to then deliver a six-session programme to pupils, outlining common mental disorders, tackling stigma and improving knowledge of sources of support for mental health.
- **Usual practice**. Schools that were allocated to usual practice continued as usual. They were asked not to add in anything new that resembled the intervention programmes. Existing practice and how this changed over time was measured. These schools received free mental health and wellbeing training at the end of the trial.

Both interventions were delivered during a four-month period in the spring term of each wave (January to April). YAM was delivered by trained YAM instructors and helpers (external to the schools' staff teams). The Guide was delivered by trained school staff. prior to the start of the interventions, school staff received a 1-day training session for The Guide led by the Education for Wellbeing intervention development team.

The primary outcomes¹ were tailored to the nature of the intervention. The AWARE trial sought to answer the following questions:

¹ For randomised control trials, a main outcome of focus must be selected for each intervention. So while many secondary outcomes may be of interest, there is only one primary outcome for each intervention.

- Does participating in YAM improve emotional difficulties in young people, compared to a usual practice group that did not take part in YAM? (primary outcome)
- Does participating in The Guide improve young people's intended help-seeking for mental health problems, compared to a usual practice group that did not take part in The Guide? (primary outcome)
- To what extent does the impact of the intervention vary due to how it was implemented?
- Does the impact of YAM or The Guide vary according to any pupil or school level factors?
- Does participating in YAM or The Guide impact on any secondary outcomes?
- Are YAM and The Guide cost-effective?

The Study

The Sample

Eligible participants were pupils in schools across England who were in Year 9 (aged 13-14 years) during baseline data collection. 153 schools and 12,166 pupils participated in the trial. Recruitment was conducted in three waves (2018, 2019, 2022). However, Wave 2 post-intervention data collection was interrupted by Covid-19, therefore, primary findings and implementation findings relate to waves 1 and 3.

For each wave, after completion of baseline data collection (staff and pupil questionnaires), schools had an equal chance of being allocated to one of two interventions or a usual practice group. Randomisation included a process to ensure the groups were balanced by current mental health provision within the schools, region of England, deprivation and whether the school was in an urban or rural area. The statistician, quantitative data analyst and economist were blinded to intervention allocation, meaning that they did not know which schools had been allocated to which group.

Measures

Study outcomes were measured at three timepoints: baseline (prior to randomisation), 3-6 months from the start of intervention delivery (first follow up) and 9-12 months from the end of delivery (second follow up). Questionnaires were completed online.

Main impact findings

The primary outcomes were different for each intervention, to best suit the stated intention of the intervention. For YAM, the primary outcome measure was emotional difficulties (Short Mood and Feelings Questionnaire, SMFQ, Angold et al., 1995) at first follow up For The Guide, the primary outcome measure was self-reported intended help-seeking (General Help-Seeking Questionnaire, GHSQ, Wilson et al., 2005) at first follow up.

Secondary outcomes included the same outcome measure as the primary analysis but at a later timepoint (9-12 months post intervention). Additionally, the primary outcome measure for one intervention was included as a secondary outcome measure for the other intervention: i.e. for YAM, GHSQ (Wilson et al., 2005) at first and second follow up was a secondary outcome measure. For The Guide, SMFQ (Angold et al., 1995) at first and second follow up months was a secondary outcome measure. For both interventions, the following measures were also included as secondary outcomes (measures are included in the associated Technical Report):

- Positive wellbeing (Huebner Life Satisfaction Scale) (Huebner et al. 1991)
- Stigma: knowledge (items 1-6 from the Mental Health Knowledge Schedule) (Evans-Lacko et al., 2010)
- Stigma: behaviour (intended behaviour subscale from the Reported and Intended Behaviour Scale) (Evans-Lacko et al., 2011)
- Stigma: attitudes (Attitudes towards mental health) (Milin et al., 2016)
- Quality of life (Paediatric Quality of Life, Child Health Utility-9D, CHU9D) (Stevens, 2009) (economic analysis)

Implementation analysis

Baseline behavioural (Me and My Feelings behavioural subscale; Deighton et al., 2012) and emotional difficulties (SMFQ, as above) were assessed as an indication of levels of need in the classroom.

Baseline mental health provision was determined in two ways: whether or not the school had delivered any universal mental health programmes before their involvement in the trial and information regarding the extent of mental health training staff members in the school had been offered. These data were collected via the online current mental health provision survey.

In addition to the above measures, pupils' gender (male or female, as recorded in schools administrative data according to the specification for the National Pupil Database at the time of the study), percentage of free school meal eligibility at the school level, and the wave of trial participated in were also taken into account.

We also collected information on how much of a given intervention was delivered (dosage) via online teacher surveys. Intervention compliance was determined based on complete delivery (i.e., all sessions delivered) vs incomplete delivery (anything less than the required number of sessions).

Effect modification

To understand whether the impact of the interventions varied according to any pupil or school level factors, the following variables were used:

- Individual level socio-demographic characteristics:
 - a. Gender (male/female)
 - b. Free school meal status of the pupil (no/yes)
 - c. Ethnicity (broad white/ethnic minority groups)
- Individual level difficulties

- a. Previous poor mental health (SMFQ above/below cutoff)
- b. SEN status (SEN/no SEN)
- School level characteristics
 - a. School level deprivation (free school meal status of pupils lowest, medium and highest % categories)
 - b. School setting (urban/rural)
 - c. Previous implementation of universal mental health programmes before involvement in the trial (prior support/no prior support)

Analysis

For the main impact findings and secondary outcome findings, the measures were analysed using an intent-to-treat (ITT) approach, where outcomes are analysed for all participants allocated to the intervention arms of the trial, regardless of whether individuals actually received the intervention (Gupta, 2011). We used an analytical technique called mixed linear models which compared the scores of young people receiving YAM or The Guide to those of the usual practice group, whilst taking into consideration the impact of:

- Emotional difficulties at the start of the project;
- The trial wave;
- Where in the country the school was located (North East, North West, South East, South West);
- Current mental health provision at the school;
- Deprivation (measured by percentage of students with free school meal eligibility);
- Whether the school was located in an urban or rural location.

The intervention groups were compared with the usual practice group only, not to each other.

To understand whether the effects of the intervention vary according to pupil or school level factors, the same analytic strategy described above was used adding in consideration of a range of different potential moderators of the impact. Each moderator was considered separately:

- Gender (male/female);
- Free school meal status of the pupil;
- Ethnicity (broad white/ethnic minority groups);
- Previous mental health;

- SEN status;
- School-level deprivation;
- Rural/urban situation of school;
- Previous mental health interventions.

Because research trials are designed to primarily detect the overall effect of the intervention, splitting analysis into subgroups, either based on implementation or pupil characteristics, reduces the sample size within groups and increases the complexity of the analysis. This means findings for these additional analyses are more exploratory in nature, meaning they can indicate where impact varies but not with the same degree of confidence as the main impact findings.

For the implementation findings, a statistical method called Complier Average Causal Effect (CACE) estimation (Peugh, 2017) was used to test whether intervention dosage changed the impact of the intervention on primary outcomes. CACE categorises pupils as either compliers or non-compliers (see below for how this was defined in each analysis). Statistical techniques are used to estimate which pupils in usual practice schools would have been compliers to the intervention ², had they been randomised to receive it. Outcomes are then compared between compliers in the intervention arm and 'would-be' compliers in the control group. The resulting CACE effect therefore tells us the effects of the intervention among only those who complied with the intervention. This contrasts with the main impact findings which tell us the effects for the treatment group as a whole, irrespective of whether they received the intervention in full.

Among those in intervention schools, compliance was derived using dosage information and determined by the completeness of delivery³:

- YAM: compliers were those who received all 5 sessions of YAM (n = 2,255; 78%), and non-compliers were those who received no sessions of YAM (n=636; 22%).
- The Guide: compliers were those who received all 6 sessions (n=1,964; 81.5%), and non-compliers were those who received fewer than 6 sessions (n=445; 18.5%).

² The statistical techniques used in CACE groups pupils from usual practice schools as compliers or noncompliers, using information about the characteristics of compliers among those who were randomised to the intervention (i.e., predictors of compliance). There may be some discrepancies between the number of *actual* compliers in intervention schools, and the *CACE estimated* numbers of compliers (which include those in usual practice schools being allocated either complier or non-complier status), as a result of these estimation processes.

³ The compliance figures given below are based on those who were analysed; this amounts to less than the total number of compliers/non-compliers in each intervention, as the software used for analyses (Mplus) removed anyone with missing information on covariates (e.g. pupil gender), and/or missing both compliance *and* outcome information.

Predictors of compliance are factors that indicate whether someone is more or less likely to comply to the intervention. Having several good predictors of compliance increases the robustness of CACE findings. Where CACE models yield no statistically significant predictors of compliance, results should be interpreted with some degree of caution. All CACE analyses considered pupils' gender, baseline emotional and behavioural difficulties, free school meal eligibility, wave of participation in the trial, whether there had been previous mental health interventions delivered at the school, and each schools' existing level of mental health provision as predictors of compliance. The Guide model additionally considered the effects of baseline intended help-seeking scores on compliance status and the primary outcome (intended help-seeking at first follow up).

To understand whether the interventions are potentially cost-effective, a quality-adjusted life-years (QALY) score was calculated using the CHU9D index, using preference weights presented by Stevens (2012). The CHU9D questionnaire asks about health related quality of life on a number of areas such as worry, sadness, pain, tiredness, and ability to join activities. The costs of delivering the intervention in each arm of the trial were calculated using data provided by the delivery teams. Participants were also asked to provide information about contacts with school, health, social and hospital services using a short version of the Client Service Receipt Inventory (CSRI). Costs for services were obtained from publicly available sources. Cost-effectiveness of interventions was determined using the willingness-to-pay threshold of £20,000 to £30,000 per QALY gained, as accepted by NICE.

Findings

YAM

Does participation in YAM improve emotional difficulties in young people?

Analyses showed that participating in YAM had no statistically significant impact on young people's emotional difficulties (effect size=0.02, 95%-confidence interval: -0.05, 0.10). This means there were no discernible differences between the usual practice and intervention group in terms of the change in their emotional difficulties from baseline to the first follow-up post-intervention (measured 3 to 6 months after intervention delivery).

To what extent does the impact of YAM vary due to how it was implemented?

Data for 5,408 pupils from 87 YAM and AWARE usual practice schools were analysed; 2,745 pupils (51%) were estimated by the CACE model to be compliers.⁴ Compliance (receiving all scheduled sessions) led to significant decreases in emotional difficulties.

⁴ Note the total number of compliers here are those estimated by the CACE model, hence are larger than the total number of compliers in the intervention group as they additionally include 'would-be' compliers from the control arm.

The size of this effect translates to a 33 percentile point reduction in emotional difficulties. Baseline emotional and behavioural difficulties were found to be significant predictors of compliance, with lower levels of baseline emotional and behavioural difficulties making compliance more likely.

Does participation in YAM impact any other outcomes?

There were no detected effects of YAM compared with the usual practice group on any secondary outcomes at first follow up (3-6 months after the start of intervention delivery). At the second follow up (9-12 after intervention completion), there was an **increase** in emotional difficulties (effect size=0.08, 95%-confidence interval: 0.02, 0.14) for the YAM group compared to the usual practice group.

Does the impact of YAM vary according to any pupil or school level factors?

Although there was no overall main effect of the YAM intervention at first follow up, there was an interaction between prior levels of universal mental health provision in schools and YAM such that pupils from schools with low levels of prior school provision showed **higher levels of emotional difficulties** at follow up than schools with higher levels of prior provision. This may suggest YAM had the potential to increase emotional distress for young people in schools with no prior provision of universal mental health programmes. At second follow up, there was no evidence that the impact of YAM varied according to any pupil or school level factors.

Is YAM cost-effective?

Based on the outcomes measured by the health utilities measures (health related quality of life), and the data around intervention costs and service utilisation, the economic analysis found that YAM has a low probability of being considered cost-effective at the first follow up, and a higher probability of being considered cost-effective at second follow up. This means that at the second follow up, while cost savings in terms of service use do not exceed cost of intervention, the improvements in the quality of life outcome indicate that this intervention has a high probability of being considered cost-effective using the standard willingness-to-pay threshold (as used by NICE) of £20,000 to £30,000 per QALY gained.

The Guide

Does participating in The Guide improve young people's intended help-seeking for mental health problems?

Analyses showed that participating in The Guide had a statistically significant impact on young people's help-seeking intentions (effect size=0.10, 95%-confidence interval: 0.02, 0.19). This means there was a discernible difference between the usual practice and

intervention group, with participation in The Guide being linked to greater improvement in intended help-seeking from baseline to first follow up.

To what extent does the impact of The Guide vary due to how it was implemented?

Data for 4,879 pupils from 84 schools that were implementing The Guide or were in the AWARE usual practice group were analysed; 3,483 pupils (71%) were estimated by the CACE model to be compliers. Compliance (i.e. receiving all scheduled sessions, as opposed receiving anything less than all sessions) increased intended help seeking scores. When young people received all 6 sessions, this was equivalent to a 7 percentile point increase in intended help seeking behaviour. Wave of participation in the trial was found to be a significant predictor of compliance, with pupils in schools participating in wave 3 of the trial (baseline data collection in October 2022) being more likely to be compliers than those participating in wave 1 (baseline data collection in October 2018).

Does participation in The Guide impact any other outcomes?

At the first follow up there were more positive attitudes towards mental health (effect size= 0.11, 95%-confidence interval: 0.03, 0.17), increased knowledge of mental health (effect size= 0.26, 95%-confidence interval: 0.18, 0.33) and more positive mental health behaviours (effect size= 0.10, 95%-confidence interval: 0.03, 0.17) in the group that received The Guide compared with the usual practice group.

Some positive effects of The Guide remained at the second follow up, namely, increased mental health knowledge (effect size= 0.10, 95%-confidence interval: 0.03, 0.17) and more positive mental health behaviours (effect size= 0.07, 95%-confidence interval: 0.003, 0.14). However, there was an **increase in emotional difficulties** (effect size= 0.09, 95%-confidence interval: 0.03, 0.15) and **decreased life satisfaction** (effect size= - 0.08, 95%-confidence interval: -0.13, -0.02) at this longer term follow up in the group that received The Guide compared with the usual practice group.

Does the impact of The Guide vary according to any pupil or school level factors?

At first follow up, there was no evidence that the impact of The Guide varied according to any pupil or school level factors. At second follow up, although there was no overall longterm effect on the primary outcome, there was an interaction between gender and The Guide. Girls that received The Guide showed higher levels of intended help-seeking compared to boys at the second follow up, whereas there was no gender difference observed in the usual practice group.

Is The Guide cost-effective?

Based on the outcomes measured by the health utilities measures (health related quality of life), and the data around interventions costs and service utilisation, the economic

analysis found that The Guide has a low probability of being considered cost-effective at both the first and second follow up. This was because, while there was a small improvement on the quality of life outcomes reported by the intervention group, potential cost savings in terms of service use were exceeded by the cost of intervention. These exceeded the standard willingness-to-pay threshold (as used by NICE) of £20,000 to £30,000 per QALY gained.

Conclusions

With recent prevalence studies reporting increases in mental health problems in children and young people (Newlove-Delgado et al, 2022), there has been growing emphasis on mental health prevention and early intervention in recent years. Schools have increasingly become a key focus as a context for provision of universal mental health promotion and prevention initiatives as well as more targeted support (Department of Health and Social Care, 2017). However, there have been mixed findings around the effectiveness of such school-based approaches (Hayes et al., 2024), with some studies demonstrating positive impacts, some reporting no impact and a small number even reporting potentially negative effects (see Foulkes & Andrews, 2023). Furthermore, many studies testing their effectiveness are of low quality (Hayes et al., 2024) and few explore outcomes in the longer term (Clarke et al., 2021).

YAM and the Guide are two interventions that focus on improving awareness and knowledge around mental health that have been tested rigorously and found to be effective (Kutcher et al., 2015; Wasserman et al., 2015). However, prior to the AWARE trial, these interventions had not been trialled at scale in English schools. The aim of the AWARE trial was to ascertain whether these tried and tested approaches might be effective in English schools.

In the AWARE trial, YAM did not have an overall positive effect on emotional difficulties (main impact findings), but much of this limited impact may be explained by the significant number of schools that did not implement the intervention. When it was actually delivered, the implementation findings showed that YAM did reduce emotional difficulties in the short term. In schools where there was little other prior mental health provision, YAM was associated with negative impacts in the short term. Furthermore, pupils receiving YAM showed higher levels of emotional difficulties 9 to 12 months after the intervention. It's possible that YAM increased awareness and ability to self-report emotional difficulties but it is also possible that YAM may have inadvertently led to greater feelings of emotional distress long-term. YAM was found to have a low probability of being considered cost-effective in the short term but a higher probability of being cost effective at the longer term follow up. Overall, based on the findings of this study, we would not recommend YAM to be delivered in English schools, due to the lack of overall impact on the primary outcome and the potential for negative outcomes in the longer term. It is possible that in schools that are able to achieve complete delivery, there may be improvements in emotional difficulties. However, many schools found that complete delivery was unachievable, and support may still be needed in monitoring longer term outcomes.

The Guide was found to be an effective intervention for increasing intended help-seeking in secondary school pupils 3 to 6 months after beginning participation in the intervention. Receiving all sessions (as opposed to fewer sessions) of The Guide amplified the

increases in intended help-seeking behaviour reported in the main impact analysis, suggesting further benefits are gained from complete delivery. In addition to increasing intended help-seeking, it also led to improved attitudes, knowledge and behaviour around mental health at the initial follow up. While increased knowledge and positive behaviours sustained to the second follow up one year later, The Guide also led to increased emotional difficulties and decreased life satisfaction one year later. As with YAM, it's possible that The Guide improves young people's ability to identify and report emotional difficulties, but it is also possible that these kinds of interventions can, over a longer period, exacerbate emotional distress and dissatisfaction. In addition, it was found to have a low probability of being considered cost-effective at both the short and long-term follow up. Overall, based on the findings of this study, we would not recommend The Guide to be delivered in English schools due to the potential for negative outcomes in the longer term.

It should be noted that for the purposes of this trial, some adaptations were made to both YAM and The Guide to ensure greater feasibility of implementation in English schools (see <u>Education for Wellbeing: Technical report</u> for details). While these adaptations were agreed with intervention developers, it is possible that some of these adaptations may have had an impact of the effectiveness of the interventions.

While the evidence presented in this trial does not provide grounds to fully recommend either YAM or the Guide for use in English secondary schools, other evidence does suggest that some universal mental health awareness and literacy programmes can lead to positive outcomes (Hayes et al., 2024). Universal interventions like these are unlikely to achieve the larger shift in young people's mental health that is needed based on current prevalence estimates. Rather they should be considered as part of a wider provision strategy in schools, alongside support embedded within families and communities.

Findings presented here emphasise that full implementation is needed to maximise impact of these interventions, and that even previously tested interventions can have unforeseen negative outcomes. If schools do choose to implement the interventions trialled in this study, or others, care should be taken to monitor the impact on participating young people in the short and long term.

Recommendations

YAM is not a recommended intervention based on these findings. Although we report that if implemented in full, YAM may improve emotional difficulties, a large number of schools experienced challenges in delivering YAM suggesting it is not fully compatible with some English schools. There was also increased emotional difficulties at the long-term follow up and in schools with lower levels of existing universal provision. If the intervention is implemented, care should be given to monitor the impact on participating young people and ensure adequate support is available in the long run.

Although the current study showed initial benefits from The Guide, the negative longer term outcomes lead to the conclusion that The Guide is not a recommended intervention for young people in English secondary schools. If schools want to implement The Guide, care should be given to ensure adequate support is available in the long run.

Complete delivery is an important factor when considering the effectiveness of curriculum-based interventions, with effects either being contingent upon (YAM) or amplified by (The Guide) complete delivery.

Careful consideration should be given to the possible unintended consequences of some mental health programmes in schools, especially where pre-existing provision of similar approaches is limited. Raising awareness of mental health challenges in schools that are less accustomed to supporting pupils to be mental health literate may potentially lead to increased distress.

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Reference: RR1489

ISBN: 978-1-83870-612-8

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