# LifeSpan Integrated Suicide Prevention

## Study Protocol:
## YAM Evaluation, ACT

**October 2019**
**V1**

LifeSpan Integrated Suicide Prevention

Black Dog Institute

# Contents

# Executive summary

The overall goal of this project is to investigate the effectiveness of a universal, mental health promotion and suicide prevention program – Youth Aware of Mental Health (YAM) – for reducing suicidal ideation and behaviour (attempts and deaths) and increasing help-seeking. YAM is a universal evidence-based mental health promotion program for 14- to 16-year-olds. YAM was developed for the Saving and Empowering Young Lives in Europe (SEYLE) study, a multicentre, cluster-randomised controlled trial involving 11,110 adolescent students with a median age of 15 years, recruited from 168 schools in ten European Union countries. In the European trial, YAM was shown to reduce depression and anxiety, suicide attempts, and severe suicidal ideation and facilitated healthy lifestyle choices among young people[1].

The YAM program will be offered to all Year 9 students in government and non-government ACT schools. Students from participating schools are being invited to participate in an evaluation of YAM – a waitlist-controlled trial commencing Term 2 to Term 4, 2020. Data will be collected at baseline, immediate post, and 3-month follow-up.

# 1. Introduction

## 1.1 Background and rationale

Young people can be particularly vulnerable to mental health problems, self-harm and suicide. Schools offer an ideal environment in which to implement suicide prevention initiatives for reaching young people. Although there is no direct evidence that school-based programs prevent suicide deaths, they have been shown to improve student knowledge and attitudes toward suicide and, in some cases, to reduce suicidal ideation and suicide attempts[2,3]. Based on a thorough review of the literature, only a few school-based programs were identified that had shown significant positive effects on suicidal behaviours, suicide literacy, and/or protective factors for suicide such as help-seeking behaviour. The programs that were identified are:

- Youth Aware of Mental Health (YAM)
- Signs of Suicide
- Sources of Strength

All three programs are supported by RCT evaluation results, with YAM and Signs of Suicide demonstrating reductions in suicidal behaviours among young people, and Sources of Strength showing increased help-seeking behaviour and improved acceptability of help seeking. As the primary outcome of the broader LifeSpan suicide prevention trial is to achieve reductions in either suicide mortality rates and/or suicide attempts, it was decided to focus on the two programs which had an evidence-base for reducing suicide behavioural outcomes: YAM and Signs of Suicide. Based on the strength of the research evaluation design, the YAM program was selected as the school-based program for the LifeSpan trial. This YAM program and its efficacy are described below.

**Youth Aware of Mental Health**
The Youth Aware of Mental Health (YAM) program is a universal intervention that aims to raise mental health awareness about risk and protective factors associated with suicide (including knowledge about depression and anxiety), and to enhance the skills needed to deal with adverse life events, stress, and suicidal behaviours. It incorporates (i) three hours of role-play sessions with interactive workshops, (ii) a 32-page booklet for students to keep, (iii) six educational posters displayed in each participating classroom, and (iv) two 1-hour interactive lectures about mental health at the beginning and end of the intervention.

YAM was developed for the Saving and Empowering Young Lives in Europe (SEYLE) study, a multicentre, cluster-randomised controlled trial involving 11,110 adolescent pupils with a median age of 15 years, recruited from 168 schools in ten European Union countries[1]. Schools were randomly assigned to one of three interventions or a control group. The interventions were:

1. Question, Persuade, Refer (QPR): a gatekeeper training module targeting teachers and other school personnel
2. YAM: a schools-based program targeting adolescent students, and
3. Screening by professionals (ProfScreen) with referral of at-risk students.

The primary outcome measure was the number of new suicide attempts made at the 3-month and 12-month follow-up. No significant differences were observed between the intervention and control conditions at the 3-month follow-up. At the 12-month follow-up, YAM was associated with significantly fewer incident suicide attempts, i.e., new cases of suicide attempts identified at either the 3-month or 12-month follow-up (odds ratios [OR] 0.45, 95% CI 0.24-0.85; p=0.014), as well as a significant reduction in severe suicidal ideation (0.50, 0.27-0.92; p=0.025) compared with the control condition. Fourteen students (0.7%) reported incident suicide attempts at the 12-month follow-up in the YAM condition compared with 34 (1.51%) in the control condition, while 15 students (0.75%) reported incident severe suicidal ideation in the YAM condition compared with 31 (1.37%) in the control condition. The YAM intervention showed an absolute risk reduction of approximately 1% when the two outcomes of suicidal ideation and attempt were combined, which equated to one suicidal outcome being prevented for approximately every 91 students exposed to the YAM intervention. No participants died by suicide during the study period.

## 1.2 Objectives

The primary aim of the YAM study is to determine whether there is a significant decrease in suicidal ideation severity across time (from immediate post-intervention and 3-month follow-up, compared to baseline) compared to a waitlist control group.

The study also aims to determine whether students receiving YAM compared to students receiving classes as usual (the waitlist control group), will have reported:

a) Reduction in the rate of self-harm at 3-month follow-up;
b) Increase in help-seeking intentions for suicide immediately post-intervention and 3 -month follow-up;
c) Increase in help-seeking behaviour for suicide immediately post-intervention and 3 -month follow-up;
d) Decrease in suicide stigma immediately post-intervention and 3 -month follow-up;
e) Increase in suicide literacy immediately post-intervention and 3 -month follow-up;
f) Decrease in depression symptoms immediately post-intervention and 3 -month follow-up;
g) Decrease in loneliness immediately post-intervention and 3 -month follow-up;
h) Increase in confidence supporting peers immediately post-intervention and 3 -month follow-up;
i) Increase in mental wellbeing immediately post-intervention and 3 -month follow-up.

Process outcomes for the implementation of the YAM intervention in the ACT will also be evaluated; including:

a) Number of schools contacted and signed on for participation in the YAM program;
b) Number of Instructors and Helpers trained to deliver YAM;
c) Number of schools that completed the YAM program;
d) The extent to which the program was delivered as prescribed;

## 1.3 Hypotheses

Immediately post-intervention and at 3-month follow-up, relative to baseline, it is hypothesised that student participants that have received the YAM intervention will report:

1. decreased suicidal ideation severity compared to control
2. greater reduction in rates rate of self-harm compared to control
3. greater increase in help-seeking intentions for suicide compared to control
4. greater increase in help-seeking behaviour compared to control
5. greater reduction in stigma relating to suicide compared to control
6. greater increase in knowledge relating to suicide compared to control
7. greater reduction in depression symptom severity compared to control
8. greater reduction in loneliness compared to control
9. greater increase in confidence supporting peers compared to control
10. greater increase in mental wellbeing compared to control

## 1.4 Trial design

YAM will be evaluated using a randomised waitlist-controlled design. All Education Directorate (government) mainstream secondary schools and all Independent and Catholic schools will be invited to trial YAM through an expression of interest process.
The active intervention will take place over a 12-month period, beginning Term 2 2020. Data will be collected via student self-report (Appendix A). Measurement of primary and secondary outcomes will be taken at three time-points: pre-intervention (baseline), immediate post-intervention, and at 3-month follow-up. Parent/guardian consent will be sought for students to participate in the data collection.

**Table 1.** Trial design and data collection timeline

| | *May-Jul T2* | *May-Jul T2* | *May-Jul T2* | *Aug-Oct T3* | *Oct-Dec T4* |
|---|---|---|---|---|---|
| *Cluster A schools* | *Pre-survey* | *YAM* | *Immediate post-survey* | *3-month post-survey* | *usual classes* |
| *Cluster B schools* | *Pre-survey* | *usual classes* | *Immediate post-survey* | *3-month post-survey* | *YAM* |

## 1.5 Procedure

*Cluster A schools:*
Consenting schools will be randomly allocated to the intervention or waitlist arm via cluster randomisation. Students in Cluster A schools will complete a baseline survey before participating in the YAM program and immediate post survey after program completion, all occurring in Term 2, 2020. They will then complete a 3-month post survey in Term 3, 2020.

*Cluster B schools:*
Surveys will be administered at the same time for students in Cluster B schools, but instead of receiving the YAM program in Term 2, 2020, they will have classes as usual. These students will receive YAM in Term 4, 2020.

If there are schools receiving the YAM program in Term 3, 2020 we aim to invite them to participate in the study as additional data would be valuable. These schools would administer surveys at pre- and post-YAM only, within Term 3.

The survey will take approximately 30 minutes to complete. All data will be securely stored at the Black Dog Institute, UNSW, with access to the data restricted to trial personnel and investigators.

**Supervision of in-class surveys**
Completion of the in-class surveys for all schools will be supervised by Black Dog Institute volunteer research assistants in addition to a school contact nominated by the Principal. These research assistants will be recruited and trained specifically for this study and valid Working With Vulnerable People registrations will be sent through to HREC once they are recruited. Applicants with a background in psychology, mental health, education, teaching, youth work, or counselling will be preferenced. As these individuals are recruited into the project, Personnel Modification requests will be submitted to UNSW HREC. Successful applicants will be required to attend a one day face-to-face training workshop at Australian National University (partner university on this project) in which they will learn about our Research Codes of Conduct, as well as student welfare management, risk flagging, and what to do when a young person discloses something to them that concerns the safety of themselves or someone else. All volunteer research assistants will be provided with a step-by-step guide in how to manage interactions and what to communicate with participants. All research assistants will adhere to a field work protocol developed for the study, as is the Black Dog Institute standard practice. This protocol will include step-by-step instructions for each activity to be completed before, during and after the visit, details about how to check in/out of their visit by communicating with Black Dog research staff, and a checklist of materials required at each visit.

**Program fidelity**
Assessing treatment fidelity is a core methodological consideration in the study of treatment outcome; it influences both the degree to which changes can be attributed to the intervention and the ability to replicate and disseminate the intervention. Treatment fidelity refers to the degree to which a treatment or intervention is delivered as prescribed and is critical to successful translation of evidence-based interventions into practice. Many studies have attempted to specifically evaluate the association of treatment fidelity and outcome with varying results. We will evaluate the degree to which YAM has been delivered across schools as intended within a large suicide prevention research trial, by assessing various aspects of fidelity. We will also evaluate whether treatment fidelity may influence effectiveness of the program outcomes.

YAM Instructors and Helpers, who are involved in delivering the program, are expected to complete an online survey immediately after the last session of YAM within the school, as a standard requirement of program delivery. We will be asking YAM Instructors and Helpers if they consent for the information they provide on these online surveys to be used for research purposes. That is, we will be adding a participant information and consent section to their pre-existing program fidelity feedback form.

## 1.6 Significance

LifeSpan represents an opportunity to contribute to the presently sparse evidence base for suicide prevention programs in Australian schools. There is a strong need for such research, given the high prevalence of suicidal behaviours in Australian youth, the significant burden associated with suicide, and the pressure placed on governments from the community to act to prevent youth suicide. The delivery of YAM as a part of this trial has the potential to significantly impact the suicide rate of young Australians, as well as stimulate more high-quality research in this critical area.

# 2. Methods: Participants, interventions, and outcomes

## 2.1 Study setting and recruitment method

The Principal of eligible schools will be approached in the first instance by the ACT Health Suicide Prevention Officer who will meet with the school to explain the delivery and evaluation procedure. The Principal will be emailed a brief study invitation cover letter, study timeline (Appendix B), School Information Booklet outlining important details about the study (Appendix C) and a letter of support template (Appendix D). Principals will be instructed to contact the research team if they are interested in taking part. A week after sending these emails, a member of the research team will follow up with these schools via email or phone to confirm that they received the information and to enquire about whether they would like their school to take part. Schools will have the opportunity to hear more information over the phone or to arrange a face-to-face consultation with the research team. Those who wish to take part will be instructed to sign and return the letter of support. After the letter of support has been signed and returned, a meeting (either face to face or over the phone) will be planned with the team to make decisions regarding timetabling and trial administration processes for the school.

Recruitment will occur at the school level and therefore we will not be recruiting students or parents directly into the study. After the school has consented to participate, parents and students will be informed of the study in a variety of ways:

(a) Via a 'parent information session"– If possible and supported by the school, a parent information session at the school will be arranged. This may be a standalone session dedicated to giving parents and students information about the study. Alternatively, information about the study may be announced as part of an existing school event. At these events, parents and students will be given the opportunity to ask questions. Here, the Parent Information Consent Form (Appendix E) will be distributed.

(b) Via newsletters - Schools may also choose to circulate an information sheet via their standard school newsletters to inform parents and students about the upcoming study (Appendix F).

(c) Via the information and consent form - If routes (a) or (b) are not taken, parents and students will be first notified of the study when the information and consent forms are distributed as part of the consent process outlined in section 2.2.

## 2.2 Consent process

Schools: Consent for the participation of the school will first be sought via a signed letter of approval from the school Principal.

Parents: Parental consent will be obtained before student consent. We will primarily seek consent via an electronic study invitation sent by the school. Parents will be asked to make a choice whether or not they would like to participate and submit their response to the research team via an online form. This ensures there will be no follow-up with parents who do not wish for their child to participate. Verbal consent will be offered to those parents who fail to respond to the initial consent via electronic means after two weeks, in order to allow for more complete and inclusive participation in the study. Details about the consent process for parents are provided below:

- School portal/app – Where available, a study invitation will be distributed via the school portal or app (e.g., SkoolBag, EdSmart, Moodle or other platforms used by schools).

This will include a URL link that will take parents to the information and consent section of the Black Dog Institute research platform. Here, parents and students can read information about the study, download a pdf copy of the information and parents can give their consent by filling in their details and submitting online. Parents who do not wish to consent will check the appropriate box and also submit the form online. Attached to these consent forms will be all information sheets, providing detailed information about the YAM program and the study. Parents will be instructed to discuss the study with their child to make sure they are informed and can reach a collaborative decision about whether to participate.

- Email – Where a school portal/app is not available or suitable, emails will be used to distribute the study invitation. Emails will be sent to parents of eligible students. These emails will similarly contain a link to the section of the Black Dog Institute research platform where they may read and download information forms and indicate consent via the online form.
- Phone calls – After 14 days following consent form distribution, follow-up phone calls will be made to parents who have not submitted a response via the online consent form. Phone calls will be made by a school staff member (where available and willing). The research team will collate the electronically submitted consent forms, then send a list of parents who have responded either yes or no to the study invitation, to the school staff member who will be conducting the follow-up phone calls. The staff member will be able to identify parents who are yet to respond based on school class lists. Administrative cost will be incurred by the project based on time spent at $20/hour, for a maximum of 25 hours per school, pending SERAP and individual, school-level approval. The parent will be called, information about the study given to them verbally (see Appendix G for script), and verbal consent obtained. The staff member will log onto the Black Dog Institute research platform and enter the details of parents who give consent in this way. Parents may also choose to have the study invitation re-sent to them electronically if they wish.
- Renumeration – Parents will be informed that if they complete the consent form, whether it says ‘yes’ or ‘no’ to participation, their child will receive one entry into a draw to win a prize at the school (to be determined) valued up to $30.

Students: Students will have been given information about the study via the parent information event, school newsletters, and/or the student information sheet provided to parents. A downloadable version of the Parent Information and Consent Form will be sent to parents, for students to also read and make an informed decision prior to the day of administration. Students whose parental consent has been confirmed will be taken through a Student Information and Consent Form (Appendix H) on the day of administration and required to tick and sign the relevant checkboxes and to indicate consent before beginning the survey. Students can choose not to participate in the study (even if their parents have provided consent).

YAM Instructors and Helpers: Opt-in consent will be obtained from YAM Instructors and Helpers via the pre-existing online survey, which will be prefaced with the research information statement and a consent check-box item with the response options: yes/no. This information and consent form will be downloadable.

Withdrawal of consent: If a parent, student, or YAM Instructor/Helper wishes to withdraw their consent during the study, they need to contact the research team (via Dr Michelle Tye). No reasons need to be given. To do this, parents or students can download a copy of the withdrawal of consent form from the information and consent forms (Appendix I) and return this to the research team via email (YAM.ACT@blackdog.org.au) or mail (Black Dog Institute, Hospital Road Randwick NSW 2031). A separate withdrawal of consent form will be available for YAM Instructor/Helpers with the same return process (Appendix J). Parents, students, or YAM Instructor/Helpers can also withdraw consent by phone (9382 438). When a participant withdraws, they will be asked whether the study can retain their de-identified data up until that point. If they disagree, all data will be destroyed.

The consent forms will contain information on:

- The purpose and nature of the study;
- The study methods and what participation would involve;
- That participation is purely voluntary and that they are free to withdraw from the study at any time;
- That any decision they make about participation will not prejudice their future health care in any way;
- That their data will be kept strictly confidential in accordance with the relevant privacy legislation, used for health research only and will never be used in a way which would identify them personally;
- That they will not receive any individual feedback about any aspect of their data;
- That the research has been approved by the appropriate Research Ethics Committee and that all research carried out within the study will conform to strict ethical guidelines.

## 2.3 Eligibility criteria

All mainstream secondary schools in the ACT, both government and non-government, will be invited to participate in the evaluation of YAM. YAM is a suicide prevention and mental health promotion program designed for young people aged 14 – 16 years. All Year 9 students receiving the YAM program will also be invited to participate in the YAM evaluation. No exclusion criteria will be applied. However, schools in which there has been a recent suicide death, crisis or other occurrences which may make students vulnerable (e.g., a non-suicide death) will not participate in the evaluation study. The research team will work with the Suicide prevention Officer co-located within ACT Health and the Education Directorate of ACT to identify such schools.

## 2.4 Intervention

The YAM intervention is a structured program of lectures and interactive role play sessions, consisting of five 1-hour sessions presented over a 3- to 6-week period. More specifically, it consists of one x 1-hour interactive lecture about mental health at the beginning (session 1), three x 1-hour sessions of role-play (sessions 2, 3, 4), and one closing session (session 5). Participants are also provided with a 32-page booklet that reiterates much of the content and includes a localised list of well-being and help-seeking resources. Six educational posters are also displayed in each participating classroom for the duration of the intervention. Content topics are: (1) Awareness about mental health; (2) Self-help advice; (3) Stress and crisis; (4) Depression and suicidal thoughts; (5) Helping a troubled friend; and (6) Getting advice: who to contact.

Nominated YAM instructors attend a 4.5 day training session conducted by YAM certified trainers to be able to deliver the YAM intervention in schools. Participants in the training sessions will take part in role-play sessions to practice how to deliver the intervention, and they will receive feedback from trainers. Upon completion of the course, participants will become certified YAM instructors, and are able to deliver the five session YAM program to adolescents in Australia. YAM instructors can be anyone who has contact with youth, such as psychology and psychiatry professionals, social workers, youth counsellors, social assistants, school guidance counsellors, teachers, school nurses, youth advocates, or support group workers. It is recommended that YAM instructors should not be teachers in the schools in which YAM is being implemented.

## 2.5 Outcomes

*Primary outcome measure:* The primary outcome measure will be suicidal ideation severity, measured by Paykel's Suicidal Feelings in the General Population Questionnaire (PSFGPQ).

*Secondary outcome measures for mental health*: suicidal behaviour (attempt and self-harm); help-seeking intentions for suicide (General Help-Seeking Questionnaire, GHQ adapted); help-seeking behaviours for suicide (Actual Help-Seeking Questionnaire, AHQ adapted); depression (Patient Health Questionnaire Depression Scale, PHQ-8); suicide literacy (Literacy of Suicide Scale, LOSS short-form); stigma of suicide (Stigma of Suicide Scale, SOSS short-form), loneliness (UCLA 3 Item Loneliness Scale); confidence supporting peers, and mental wellbeing (Short Warwick-Edinburgh Mental Wellbeing Scale, WEMWBS short-form).

### 2.6 Participant timeline

Among schools being evaluated, students will complete the same questionnaire on three different occasions:

1. Immediately pre-intervention (baseline)
2. immediately post-intervention
3. 3-month follow-up

### 2.7 Sample size

We estimate that 15 government schools and 18 Independent/Catholic schools will be eligible to participate. The specific numbers of schools, staff and students per site is as follows:

1. Government schools: 15 eligible schools and 2378 Year 9 students.
2. Non-government schools: 18 eligible schools and 2494 Year 9 students.

Given that school participation rates are estimated to range between 50-65% (19x0.5=7.5), and the proportion of students from participating schools returning consent forms will be approximately 20% (1189/0.2=238), an initial sample size for the Cluster A & B schools is set at a conservative 119 students per Cluster.

## 3. Methods: Data collection, management, and analysis

### 3.1 Data collection methods

Data will be collected via a student questionnaire, which will be available as an online survey hosted on Qualtrics, or as a pen and paper survey, depending on individual school preference. Prior to administration, consenting students will be allocated a unique ID. For the online survey, this will be paired with a unique password that can only be used for its corresponding ID, to ensure that only students who have consent complete the survey.

A copy of the survey can be found in Appendix A. The scales included in the survey are listed below:

**Basic demographic information (Q1-8)**
Data will be collected on basic demographics – name of school, age, ATSI identity, language spoken at home, gender, who lives at home, and sexual orientation.

**Actual Help-Seeking Questionnaire (modified) (Q9-10)**
The AHSQ[4,5] assesses recent actual help-seeking behaviour in which the respondent either does or does not report having sought help from for a mental health problem in the past 3 months. In addition to the AHSQ, actual help-seeking from adults is measured by four items (yes/no) that assess the experience of help-seeking from adults, conditional on responses to the AHSQ. If students indicate that they have sought help from at least one adult for a mental-health problem on the AHSQ, then four questions will be presented asking whether any of the adults that they have had contact with have made them feel supported, helped them get

through the situation, made the situation worse, or made them more likely to seek further help from adults. These items were drawn from the previous US Sources of Strength trial

**General Help-Seeking Questionnaire (modified) (Q11)**
The GHSQ[5,6] assesses intentions to seek help for personal or emotional problems from 11 different formal and informal sources (e.g. friend, parent, psychologist, or teacher). Respondents indicate how likely they are to seek help from each of the sources on a scale ranging from 1 (extremely unlikely) to 7 (extremely likely).

**Attitudes to seeking help from personnel at school (Q12-13)**
This is assessed by two measures, including the help-seeking from adults in general and adults at school. Both scales have four-items which were derived from the previous US Sources of Strength trial[7]. These measures assess attitudes and perceived norms about seeking help from adults on a scale from 1 (strongly disagree) to 4 (strongly agree). On the help-seeking from adults, the items include 'I know adults who could help a friend thinking of suicide' and 'My school has people who can help students going through hard times'. The items on the 'adults at school' scale enquire as to whether, if really upset and needing help, a student would talk to a counsellor or other adult at school, whether they believe these adults could help, and whether friends and family would want them to seek help. Items on this scale are summed, with higher scores reflecting more positive help-seeking from adults at school.

**Paykel's Suicidal Feelings in the General Population Questionnaire (Q14)**
This questionnaire contains five questions assessing suicidal ideation and intent[8]. Examples of the items include whether they felt life was worth living, whether they had wished they were dead, through to whether they have seriously considered taking their life. Each item is rated on a 5-point Likert scale indicating the frequency with which it may occur for the person. Two additional items have been added asking '*Have you ever tried to take their own life?'*, and if so, if this occurred in the past two weeks, the past year, or earlier.

**Self-harm (Q15-Q19)**
Self-harm is measured using three items (yes/no) that assess the presence of self-injury, whether the intention of the self-injury was to experience pain or suffering and whether the intention of the self-injury was to die. These items have been drawn from the evaluation of the Sources of Strength program.

**Stigma of Suicide Scale (SOSS) – Short Form (Q20)**
The SOSS contains a list of descriptors of people who attempt or die by suicide[9]. The SOSS has three subscales: stigma, isolation/depression, and glorification/normalisation. The subscales and their corresponding descriptors are listed below:

| Stigma | Isolation/depression | Glorification/normalisation |
|---|---|---|
| An embarrassment | Disconnected | Brave |
| Cowardly | Isolated | Dedicated |
| Immoral | Lonely | Noble |
| Irresponsible | Lost | Strong |
| Pathetic | | |
| Shallow | | |
| Stupid | | |
| Vengeful | | |

Participants are asked the extent to which they agree with each descriptor on a scale of "1 - Strongly disagree", "2 - Disagree", "3 - Neither agree nor disagree", "4 - Agree", and "5 - Strongly Agree". Higher scores on this scale are suggestive of greater suicide stigma.

Definitions have been provided for 'Noble' ('honourable or having good character') and 'Vengeful' ('wanting to get revenge'), based on feedback from SERAP that these terms may be confusing to Year 9 students.

**Literacy of Suicide Scale (LOSS) – Short Form (Q21)**
The LOSS consists of 12 statements assessing literacy of suicide[10]. Participants are asked to rate each statement based on whether they think it is "True", "False" or "Don't know". The statements reflect four domains of suicide literacy: Treatment/Prevention, Risk Factors, Signs, and Causes/Nature. Higher scores are reflective of greater suicide literacy. The 12 statements, their correct answer and corresponding domains are listed below:

| Statement | Correct Answer | Domain |
|---|---|---|
| People who have thoughts about suicide should not tell others about it | F | Treatment/Prevention |
| Seeing a psychiatrist or psychologist can help prevent someone from suicide | T | Treatment/Prevention |
| Most people who suicide are psychotic | F | Risk Factors |
| Talking about suicide always increases the risk of suicide | F | Causes/Nature |
| A suicidal person will always be suicidal and entertain thoughts of suicide | F | Causes/Nature |
| Not all people who attempt suicide plan their attempt in advance | T | Signs |
| Very few people have thoughts about suicide | F | Causes/Nature |
| If assessed by a psychiatrist, everyone who kills themselves would be diagnosed as depressed | F | Causes/Nature |
| Men are more likely to die by suicide than women | T | Risk Factors |
| People who talk about suicide rarely kill themselves | F | Signs |
| People who want to attempt suicide can change their mind quickly | T | Signs |
| There is a strong relationship between alcoholism and suicide | T | Risk Factors |

**Patient Health Questionnaire Depression Scale (PHQ-8) (Q22)**
Depressive symptoms will be measured by the PHQ-8[11]. This scale consists of 8 items that cover the DSM-IV symptoms of depression. These items are rated on a 4-point scale (0: not at all; 1: several days; 2: more than half the days; 3: nearly every day) to indicate how often the participate has been experiencing each symptom during the past two weeks. Higher scores indicate the presence of more depressive symptoms.

**UCLA 3 Item Loneliness Scale (Q23)**
Loneliness will be measured by the **UCLA 3 Item Loneliness Scale**[12]. This scale comprises three questions that measure three dimensions of loneliness: relational connectedness, social connectedness and self-perceived isolation. The questions are: How often do you feel that you lack companionship?', 'how often do you feel left out?', and 'how often do you feel isolated from others?'. These items are rated on a 3-point scale (1: hardly ever; 2: some of the time; 3: often), with a total score range from 3 -9. Higher total scores indicate a greater degree of loneliness, with an option to categorise scores 3 – 5 as "not lonely" and score 6 – 9 as "lonely".

**Confidence Supporting Peers Scale (Q24-26)**
Four items will be used to assess respondents' confidence and willingness to support a friend or peer who is experiencing personal difficulties. Responses are on a 5-point scale
from 1 (not at all) to 5 (extremely) or a Yes/No/Don't know scale. These items have been drawn from the evaluation of the Silence is Deadly intervention[13.]

**Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS) (Q27)**
The SWEMWBS was used to assess mental wellbeing[14.]. Seven statements are positively worded with five response categories from 'none of the time' to 'all of the time'. Participants

are asked to describe their experiences over the past two weeks. The scale is scored by first summing the score for each of the seven items and then transforming the total raw scores to metric scores using the SWEMWBS conversion table which can be found here. Scores range from 7 to 35 and higher scores indicate a greater degree of positive mental well-being.

### 3.2 Data management

Trial participants:

All participants will be allocated a study identifier, which will contain the first three letters of their school's name and a randomly generated four-digit number. Participant data from the surveys will be stored with the study identifier only. The file linking the study identifier with participant details will be kept under strict security (password protected), with access to authorised personnel only. Data released for analyses will not contain identifying information. All data will be handled in accordance with the relevant privacy legislation. Data will be stored on a secure, password protected server provided by University of New South Wales, with only nominated research personnel having access. An expert data manager will be involved early in the establishment of the first site to ensure that all data is handled and stored in such a way that is consistent with relevant privacy legislation. No participant will be identifiable in any publications, with aggregate results reported in all publications.

Data retention:

Data will be stored in digital format on secure servers, provided by the University of New South Wales, for 5 years after publication (or 7 years after project completion). The data will only be accessible by the researchers, who require a staff identification number and password to access the server. Personal information will be accessed, used and stored in accordance with Commonwealth Privacy Laws and the NSW Health Records and Information Privacy Act 2002. No individuals will be personally identified in the reporting of the results.

### 3.3 Statistical methods

Linear mixed models will be used to test the effect of the intervention on continuous, scaled outcome measures between groups and are able to include participants with missing data without using biased techniques. These models will include fixed effects for intervention status (baseline/unexposed vs post intervention and follow-up occasions) and random effects for cluster (school) and for participants within schools. Binary and count outcomes will be evaluated using generalized extensions of the mixed models used for scaled variables. Analysis of program fidelity data will involve univariate analysis of quantitative data. Specifically, regression analysis will be used to assess whether pre to post change in program outcomes is moderated by fidelity to the program.

## 4. Monitoring and Referral

The student survey asks sensitive questions relating to symptoms of depression and anxiety, thoughts of death and suicide, history of self-harm and suicide attempts, and thoughts and feelings towards suicide. The survey is unlikely to bring about new episodes of psychological distress, but they may bring to mind pre-existing psychological distress. While this may be somewhat unpleasant, it is unlikely to exacerbate any pre-existing distress. The school Principal and wellbeing team of each participating school will be briefed about this in advance. Students will be prepared for sensitive questions before administration (verbally and also written on the survey).

A Student Welfare Management Protocol has been developed for this study (Appendix K) which covers the management of distressed students and the protocol for responding to adverse events.

## 4.1 Supervision of students

Given the sensitive nature of some of the questions, all students will be supervised while they complete these questionnaires. The school wellbeing team will be onsite at the school and available for immediate contact for any students who require additional support during the completion of the questionnaires. Both a school contact, nominated by the Principal, and a trained volunteer research assistant will be present at the school during class time to supervise students during the completion of the baseline and follow-up questionnaires. The volunteer research assistant will explain the sensitive nature of the survey questions, process, and provide instructions for what a student should do if feeling distressed (i.e., let the researcher or the teacher know immediately by putting their hand up). Each research assistant will have a valid Working With Vulnerable People registration and be selected based on their experience working with young people. The training sessions will provide research assistants with the knowledge and skills they need to deliver and supervise the completion of assessments within schools. They will be provided ongoing support by the research team at Black Dog Institute. All research assistants will be added to the project personnel via a submission of a personnel modification request form to UNSW HREC.

## 4.2 Support resources

A breakout box will be displayed on all pages of the student survey and outline the nature of the questions, to stop if they are feeling distressed, where to seek help, and the contact details of confidential counselling services - Kid's Helpline and LifeLine.

## 4.3 Students identified to be at immediate risk of suicide or other harm

Student surveys will be confidentially viewed within 24 hours of completion by the research team as part of the monitoring and referral process to identify 'at-risk' respondents. Students who endorse any of the suicidal ideation or self-harm questions will be 'flagged' (specific criteria below) and the school Principal will be notified to coordinate follow up with these students by the school's wellbeing team in accordance with usual school procedures. The selection of these items has been made in consultation with the ACT YAM working group, ACT health and ACT Education Directorate. The research team will prepare the school Principal of this process ahead of time. Students will be notified of this referral process prior to them completing the questionnaire.

There are nine items for students will be flagged. A student will be flagged if they select the any of the following responses for:

i) Have you felt, during the past 2 weeks, that life is not worth living? (sometimes or above)
ii) Have you wished, during the past 2 weeks, that you were dead? For instance, that you could go to sleep and not wake up? (sometimes or above)
iii) During the past 2 weeks, have you thought of taking your life, even if you would not really do it? (sometimes or above)
iv) During the past 2 weeks, have you reached the point where you seriously considered taking your life or perhaps made plans how you would go about doing it? (rarely or above)
v) Have you ever tried to take your own life? (yes)
vi) When did you try to take your own life? (yes to any time selected)
vii) Have you injured yourself on purpose in the past month? (yes)
viii) Did you intend to experience pain or suffering as a result of your self-injury? (yes)
ix) Did you intend to die as a result of your self-injury? (yes)

# 5. Ethics and dissemination

## 5.1 Research ethics approval

This research has been approved by the UNSW Human Research Ethics Committee, reference ***insert HREC approval #. This study has also received ethics approval from the ACT Education Directorate and from the Catholic Archdiocese of Canberra and Goulburn.

## 5.2 Protocol amendments, deviations, and adverse events

Amendments to the study will be communicated via email, phone, or during regular meetings that are scheduled with the relevant parties. Any significant amendments made during the course of the study will be disclosed in the yearly and final reports. Any deviators from protocol or notification of adverse events*** will be reported to relevant ethics committees within 48hours of deviation or receiving notification, respectively.

***For serious adverse events (i.e., student suicide), regardless of whether the student was a study participant or not, Hunter New England HREC will be notified as the YAM program is registered and monitored there. UNSW HREC will be Cc into these reports.

## 5.3 Confidentiality

**Trial participants**
All participants will be allocated a study identifier, which will contain the first three letters of their school's name and a randomly generated four-digit number. Participant data from the surveys will be stored with the study identifier only. The file linking the study identifier with participant details will be kept under strict security (password protected), with access to authorised personnel only. Data released for analyses will not contain identifying information. All data will be handled in accordance with the relevant privacy legislation. Data will be stored on a secure, password protected server provided by University of New South Wales, with only nominated research personnel having access. An expert data manager will be involved early in the establishment of the first site to ensure that all data is handled and stored in such a way that is consistent with relevant privacy legislation. No participant will be identifiable in any publications, with aggregate results reported in all publications.

**YAM Instructors and Helpers:** the online survey completed by YAM Instructors and Helpers are anonymous and do not require them to share any identifying information.

## 5.4 Declaration of interests

There are no competing interests to declare.

## 5.5 Access to data

Only chief and associate investigators named on the ethics application will have access to the full final dataset.

## 5.6 Ancillary and post-trial care

As a duty of care mechanism, students who endorse any of the risk items (listed in section 4)

will be referred to their school wellbeing team for follow-up according to school welfare management protocol.

## 5.7 Dissemination policy

All study findings will be presented in aggregate format so that no individual level data is identifiable. At the conclusion of the trial, study findings (using lay language) will be made available to participating schools for publication in school newsletters and/or school websites. Participants and parents who nominated to hear about study findings will also be provided with these findings via email or post. These findings may also be provided to other stakeholders in the wider community, including to government in policy documents, to school counsellor bodies, teacher groups and mental health groups, all at the aggregate level. The results of the study will be disseminated via peer-reviewed publications in scientific journals, through oral and/or poster presentations at national and/or international conferences, and scientific reports.

In all reports, only aggregated group results will be reported. Individual students will not be identifiable in any publications or communications about the study.

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# Appendices

## Appendix A: Student Survey

A. YAM student questionnaire ACT_S

## Appendix B: Study Timeline

E. Study Timeline.docx

## Appendix C: School Information Booklet

F. School Information Booklet

## Appendix D: Letter of Support template

G. Letter of Support - template.docx

## Appendix E: Parent/Carer Information Consent Form

H. PICF.docx

## Appendix F: Study Information Flyer

I. Study Information Flyer.docx

## Appendix G: Verbal PICF Script

J. Verbal PICF Script.docx

## Appendix H: Student Information Consent Form

K. SICF.docx

## Appendix I: Withdrawal of Consent – Parents & Students

L. Withdrawal of Consent - Parents &

## Appendix J: Withdrawal of Consent – Instructors & Helpers

M. Withdrawal of Consent - Intructors

## Appendix K: Student Welfare Management Protocol

N. Student Welfare Management Protoc