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**Testing Two Models of Delivering and  
Maintaining Life Skills Training in a  
Secondary School Setting  
And  
Clinical Research Portfolio**

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Clinical Psychology

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# Chapter One: Systematic Review

A systematic review to assess the impact of providing peer support for emotional/mental wellbeing on adolescent peer mentors within high school settings

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## **Abstract**

**Objectives:** The review assessed the impact of providing peer support (PS) for adolescent peer mentors, identifying the advantages and disadvantages within the literature.

**Method:** A systematic review was conducted. Relevant electronic databases were searched, supplemented by secondary search strategies. Studies were appraised using a quality checklist appropriate for non-randomised studies. Ten studies were included for review.

**Results:** Benefits to adolescent peer mentors included increased confidence/ self-esteem, sense of responsibility and skills development. Difficulties identified included: lack of support, programme logistics and stigma. Studies varied in their use of measures and study design. Small sample size, lack of control group and poor follow up data reduced overall study quality allowing only tentative comparisons to be made.

**Conclusions:** The current evidence suggests that PS programmes can produce beneficial outcomes for peer mentors. However, there is a lack of rigorous research in this area. There is a need for future research to employ experimental designs, use clear intervention approaches and make use of validated measures to allow meaningful comparisons to be made.

**Keywords:** Peer mentoring, mentors, high-school, students, adolescents

## **Introduction**

There is no single definition of peer support (PS), however PS schemes have been described as activities and systems within which children and young people's potential to help one another can be fostered through appropriate training (Houlston & Smith, 2009). PS includes: mentoring, befriending, conflict resolution, advocacy and counselling-based approaches (Naylor & Cowie, 1999). Coleman, Sykes, and Groom (2017) described PS as involving:

- Children and young people helping each other;
- In a planned and structured way;
- With training to enable them to fulfil their role(s)

PS has been shown to provide positive outcomes within education, including transition management, social and academic support, connectedness to school and peers, self-esteem, prosocial behaviour and academic achievement (Colvin & Ashman, 2010; Garringer & MacRae, 2008). DuBois & Silverthorn (2005) found that adolescents engaged in mentoring relationships had positive outcomes related to education, psychological wellbeing, health and reduced problem behaviour.

Benefits identified in a review of peer mentoring programmes within the UK were skills development, improved mentor and mentee confidence and an improved and nurturing environment within schools (Mentoring and Befriending Foundation, 2010).

Previous research has focussed on the benefits of such schemes as opposed to benefits to the mentors. Houlston, Smith and Jessel (2009) conducted a review of PS initiatives in English schools and gathered information on the most prevalent benefits reported for peer mentors. These included skills development (e.g. communication and listening skills), an increased sense of responsibility and enhanced self-esteem and confidence.

There have been several reviews of the overall benefits of PS schemes, however no reviews have investigated the specific benefits and challenges of such schemes to the mentors themselves.

## Review aims

The present review aims to fill this gap in the literature by focusing on the impact of PS programmes upon peer mentors. The following questions will be explored:

1. Does peer mentoring lead to beneficial outcomes in adolescent peer mentors?
2. What outcomes have been found in the literature?

## **Search Strategy**

Electronic databases were searched for relevant published research on the 9<sup>th</sup> April 2018: EMBASE, CINAHL, MEDLINE, PsycINFO, PsycArticles, ASSIA and Psychological and Behavioural Sciences. Previous reviews and relevant papers were reviewed and following consultation with University librarians, the following keyword search terms were used linked with the Boolean operators 'AND' and 'OR' (\* indicates truncation of words):

peer\* N3 (mentor\* OR tutor\* OR navigator\* OR counsel\* OR relation\* OR support\* OR instruct\* OR advocate\*OR befriend\*)

AND

high school\* or secondary school\* or secondary education

AND

student\* or pupil\* or learner\*

No date range limit was applied. Only studies written in English were included. The review protocol was registered with Prospero and published online on the 20<sup>th</sup> June 2018.

## **Study selection**

Articles were screened against inclusion criteria detailed below. Studies that did not meet the criteria were excluded from the review.

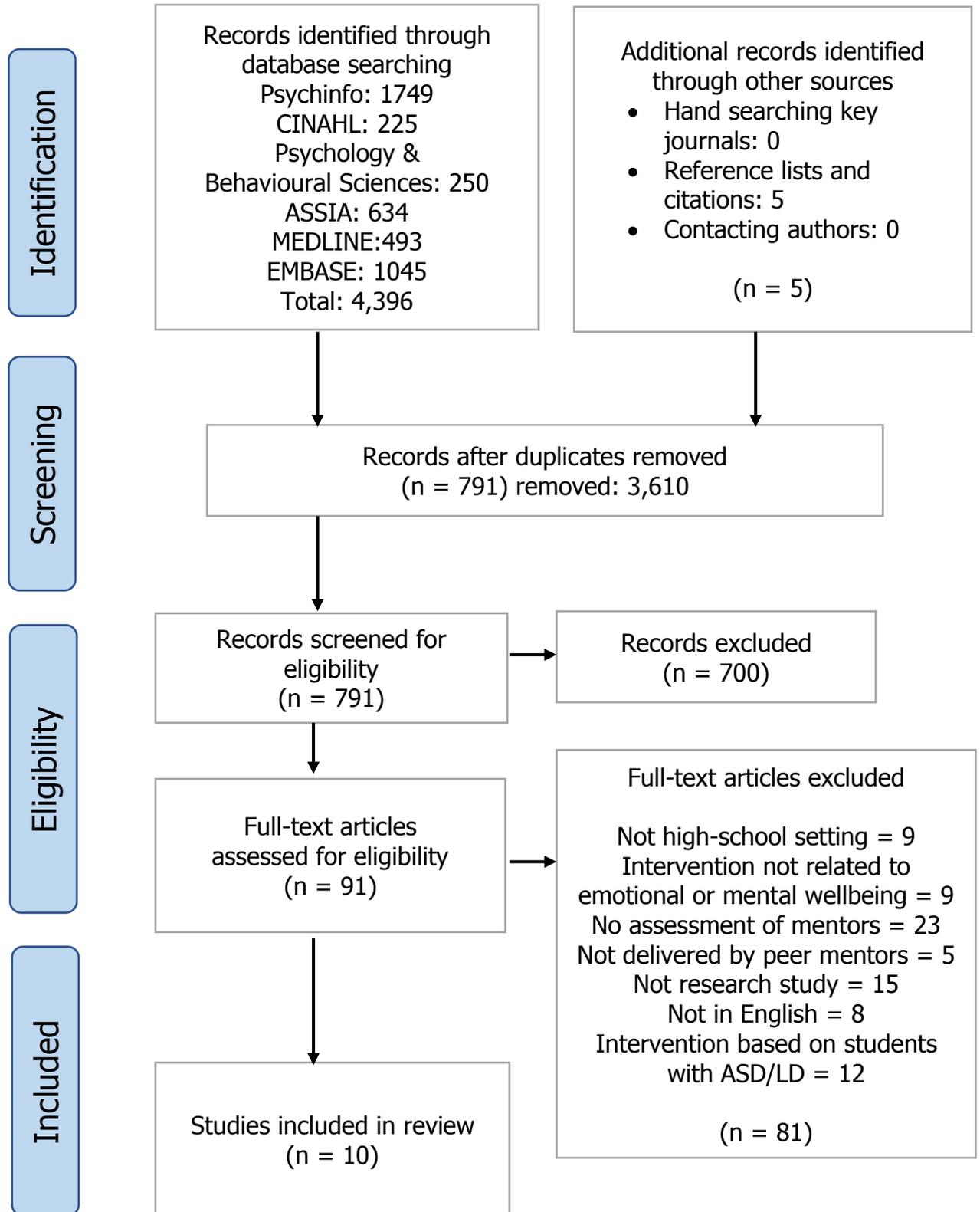
Table 1: Inclusion Criteria

Category	Criteria
Publications	Journal Articles  English Language
Study Design	All
Participants	High-School Students
Interventions	PS intervention – delivered by high-school students related broadly to emotional/mental wellbeing (e.g. bullying, stress etc.)
Outcome	Any outcome that measures mentors experience objectively – positive or adverse using a clinical outcome measure or subjective outcome whether identified through qualitative analysis or quantitative data collection methods.
Comparator	None
Exclusions	Not original research  Studies focused on students with a diagnosis of ASD or intellectual disability.

### **Details of included and excluded studies (see Figure 1, below.)**

Duplicate papers were excluded. Titles were screened by the main researcher to identify those that clearly met inclusion criteria. Reference lists of included papers were searched as well as previous reviews on related topics. Articles citing included articles were also obtained and reviewed. All abstracts were obtained of papers that appeared relevant and reviewed independently. Ten papers were included in the final review.

Figure 1: Flow Diagram of Study Selection



## **Quality rating of studies**

The Crowe Critical Appraisal Tool (CCAT; Crowe & Sheppard, 2011) was used to assess study quality. This is suitable for use across a variety of research designs and has a guide to assist scoring (Crowe, Sheppard & Campbell, 2012). Items are rated as present, absent or not applicable and each domain rated out of five. A sample of papers (30%) were rated by an independent researcher and discrepancies were resolved by discussion. The agreement between the two raters was high (Cohen's Kappa;  $K= 0.83$ ) this is considered to be almost perfect agreement (Landis & Koch, 1977). The CCAT does not provide qualitative descriptors for scores. However, previous research investigating quality rating tools used the following ordinal categories to assign a descriptor of rating: low ( $\leq 33\%$ ), moderate (33.4-66.7%) and high ( $\geq 66.8\%$ ) (Hootman, Driban, Sitler, Harris, & Cattano, 2011). These categories will be used for quality assessment.

## **Data extraction and synthesis**

Due to the heterogeneity of journal articles in the review a narrative synthesis approach was implemented to examine the findings (Popay et al., 2016). Standardised data extraction tables were developed into which the study characteristics and findings could be organised (see Table 2 & 3). The data was extracted by the chief investigator.

## **Results**

The search strategy identified 4,396 articles, 3,610 were excluded as duplicates. A further five articles were identified from hand searching the reference lists of included papers.

A total of 791 title and abstracts were screened for eligibility. Of these, 700 articles were excluded. The full text of 91 articles were reviewed using the full inclusion criteria. This resulted in the exclusion of 81 papers. A total of ten studies were included in the review.

**Table 2: Summary of Included Studies**

Article	Setting	Aim	Design	Intervention	Demographics					Length of programme	Recruitment	Training	Supervision
					N	Gender	Age	Grade	Ethnicity				
<i>Abu-Rasain &amp; Williams (1999)</i>	Saudi Arabia All boys school	Assess whether peer support ameliorates loneliness	Mixed methods Pre-post measures	Peer counselling programme	20	All male	16 - 20	1 – 3	-	Academic year Oct 1996 – May 1997	Students volunteered	12 x 45-minute training sessions	Author & 2 school counsellors.
<i>Cowie (1998)</i>	UK	To capture the experiences of peer helpers and members of staff involved in developing peer support (PS) services	Qualitative	PS systems	42	32 F 10 M	13 – 18	-	-	PS systems established for at least 1 year (range 1-4 years)	Invited applications	-	Group supervision. Supervision by an adult with training in counselling occurred at regular times.
<i>Cowie Naylor, Talamell, Chauhan &amp; Smith (2002)</i>	UK	To investigate how peer support (PS) systems evolve over time	Qualitative longitudinal study	PS systems	80	52 F 28 M	-	-	-	Follow up study – systems in place for minimum 2 years	-	-	-

Article	Setting	Aim	Design	Intervention	Demographics					Length of programme	Recruitment	Training	Supervision
					N	Gender	Age	Grade	Ethnicity				
<i>Cowie &amp; Olafsson (2000)</i>	UK All boys state school	Impact of a peer support (PS) programme on bullying	Qualitative	PS programme	7	All male	-	-	-	A school year (autumn 1996 – summer 1997)	All students invited to participate – asked to complete an application and CV	16 hours external facilitation by a trained & experienced counsellor	Weekly
<i>Guttman (1985)</i>	Canada	To describe a peer counselling model	Qualitative	Peer counselling programme	12	2 F 10 M	14 – 18	11	-	-	Peer counsellors selected from the membership of the youth group.	Nine-month course which meets weekly for 3 hours.	Weekly
<i>Houlston &amp; Smith (2009)</i>	UK All girls state school	Assess the impact of a peer counselling scheme	Mixed methods Longitudinal study Pre-post measures	Peer counselling scheme	28	All female	14 - 15	10	-	1 year	Students volunteered – interviewed by staff & students	External training from experienced supervisor of a PS programme in another school  1 full day day  3 shorter sessions	Fortnightly

Article	Setting	Aim	Design	Intervention	Demographics					Length of programme	Recruitment	Training	Supervision
					N	Gender	Age	Grade	Ethnicity				
<i>McIntyre, Thomas &amp; Borgen (1982)</i>	Canada	Implementing a peer counselling model for secondary schools	Mixed methods–pilot study Pre-post measures	Peer counselling programme	28	25 F 3 M	-	-	-	1 year	Students signed up for elective course  Retreat after training	1.5-day retreat  3 x 45 minute sessions a week for 12 weeks	Meetings every 8 school days  Peer supervision every 6 weeks
<i>Naylor &amp; Cowie (1999)</i>	UK	The use of peer support (PS) systems.	Descriptive - Survey	PS systems	47 7	-	-	-	-	PS systems in place for a minimum of 1 year	Peer supporters were selected from interview and observation during training.	-	Regularly by an adult with training in counselling
<i>Robinson Morrow, Kigin &amp; Lindeman (1991)</i>	USA	Evaluate a peer counselling training programme	Mixed methods - longitudinal pilot study  Pre-post measures	Peer counsellor training programme	26	12 F 14 M	-	-	(N =8): 5 white, 1 black, 1 Mexican American, 1 Asian	2 years	Students nominated 2 students and 2 staff members they would go to if they had a personal problem	3 days	Two Follow up sessions after training

<i>Article</i>	Setting	Aim	Design	Intervention	Demographics					Length of programme	Recruitment	Training	Supervision
					N	Gender	Age	Grade	Ethnicity				
<i>Wyman et al., (2010)</i>	USA	Examine the effectiveness of the 'Sources of Strength' suicide prevention program	RCT	Sources of Strength programme	453	296 F 157 M	Mean 15.7 16.1		Black – 72 Hispanic - 32 White - 321	4 months	Staff members nominated up to 6 students – reviewed by a team for diversity	4 hours	Staff members trained as advisors

**Table 3: Study results**

(Author)	Measures	Analyses	Qualitative outcomes	Quantitative outcomes
Abu-Rasain & Williams (1999)	(N = 20) Focus Group with peer counsellors at end of training programme  Arabic version of Self-image Questionnaire (prior to training & at end of programme)  15 item Impact form	Key themes identified  Wilcoxon test  Descriptive	+ = Gains in self-awareness, becoming a good listener, awareness of the needs of others  - = Lack of support from staff, responsibility pressure, lack of time and suitable places to meet with clients.  Impact form: 75% less nervous & increased self-awareness, 66% positive effects on views of future and making decisions, 100% reported some positive change. Universal agreement that it was a useful and profitable experience	Self-concept: Statistically significant changes on all 10 scales. Increase in mature responses $p < 0.00$
Cowie (1998)	(N = 42)  Structured interviews with peer supporters	Key themes identified from the transcripts by the author	+ = Increase in self-confidence, a sense of responsibility, belief contributing positively to the school community, sense of belonging to a team. 60% reported benefits from skills and teamwork acquired in training. All commented on group supervision and increased confidence and self-worth. 63% felt PS systems had a positive impact on the school.  - = All reported some hostility from school peers, more difficult to recruit boys which was related to 'macho' values in the school, need for appreciation of the work, hostility from some staff and concerns regarding sharing of power, problems with teachers outside scheme recognising skills, communication with staff,	N/A

			time, resources.	
Cowie et al., (2002)	(N = 80) Semi structured interviews	Descriptive	+ = Active listening skills, being there for people, empathy, enhanced sense of self confidence, gratifying sense of responsibility  - = Managing logistics to minimise stigma, school system preventing users from accessing the service, gender issues – boys underrepresented in PS & lack of adult supervision	N/A
Cowie & Olafsson (2000)	(N = 7) Interviews (initial interview immediately after training. Second interview 7.5 months later)	Descriptive	+ =All expressed belief in skills of PS and a perception of successful interventions. All commented on positive impact of being trusted to take responsibility for the issue of bullying and felt the PS intervention had made a difference.  - = A greater number of supporters would be needed to service the whole school; some victims did not seek help due to fear of stigma.	N/A
Guttman (1985)	(N = 12) Self-reports of peer counsellors after 9-month training period	Descriptive	+ = The majority indicated the training gave them greater self-confidence, self-esteem, interpersonal skills & communication skills and helped them cope with personal adolescent problems.  - = None identified	N/A

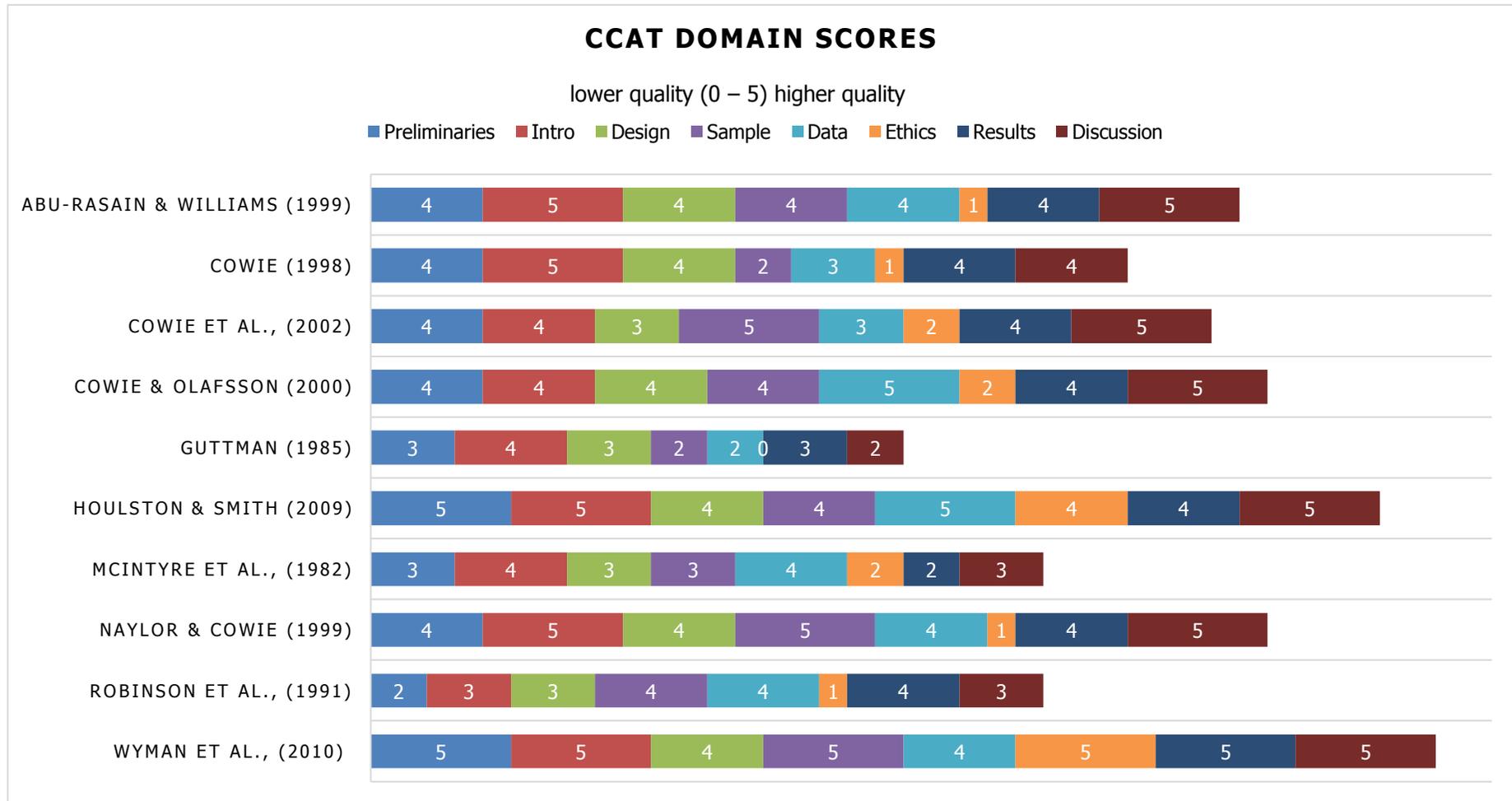
<p>Houlston &amp; Smith (2009)</p>	<p>(N = 14)</p> <p>Questionnaire to evaluate training</p> <p>Two discussion groups – (one before training and at end of academic year to reflect on their experiences)</p> <p>(N = 14 PSers)</p> <p>(N = 14 control group)</p> <p>Questionnaires (pre-&amp; post test):</p> <p>Shame management</p> <p>Social self esteem</p> <p>Social skills</p>	<p>Descriptive</p> <p>Key themes identified</p> <p>Independent group t-tests</p>	<p>Training questionnaire: 13 reported training to be enjoyable and useful, 13 felt training was sufficient in preparing them for the role and wanted to continue to be part of the scheme. 1 student was unsure whether to continue, felt training had been insufficient and was unsure whether it was enjoyable or useful.</p> <p>Initial discussion:</p> <p>+ = None identified</p> <p>- = Concern regarding whether scheme should be aimed at older students</p> <p>End of year discussion:</p> <p>+ = All were positive about involvement in the scheme, 10 stated they found skills transferable. All felt it had improved their confidence. Six mentioned improved feelings of self-worth and 8 stronger relationships between them and staff running the scheme</p> <p>- = All reported uptake and use of service was slow. Concerns regarding privacy of written requests. Variation in experience of form group registration sessions.</p>	<p>Shame: Pre-training shame acknowledgment scores higher for peer counsellor's <math>p &lt; 0.006</math> ES = 1.3; whilst their shame displacement was lower <math>p &lt; 0.006</math> ES = -0.9. No significant change over time for either group in shame acknowledgement <math>p = 0.125</math> ES = 0.6, or shame displacement <math>p = 0.466</math> ES = 0.3</p> <p>Self-esteem: No significant differences in initial scores <math>p = 0.960</math> ES = 0. Significant difference in post scores. Peer counsellor scores increased whilst controls reduced slightly <math>p = 0.319</math> ES = 0.4</p> <p>Social skills: No significant difference between peer counsellors and controls in initial scores <math>p = 0.319</math> ES = 0.4. Scores increased in both groups over time <math>p = 0.292</math> ES = 0.7.</p>
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McIntyre et al., (1982)	Individual evaluations  Videotaping of role plays (at mid-point and end of training sessions)  (N = 10 trained)  (N = 9 untrained)  10 statement fixed response instrument (post & 3 month follow up)	Descriptive  T-test	Evaluations:  + = gains in regard to personal growth & helped to focus on helping careers  - = lack of participation of some group members impacting on the unity of the group  Video tapes showed evidence of a significant increase in helping skills.	10 problem statement fixed response instrument – trained group made significantly fewer errors in appropriate responses than untrained group $p < 0.001$  3-month follow up showed no significant loss of skills, significant gains in choosing empathic responses.
Naylor & Cowie (1999)	(N = 477)  Questionnaire survey	Descriptive	+ = Acquisition of skills and a demonstration that they care  - = Acceptance of the system within the school, few clients, negative attitudes from teachers towards the scheme	N/A
Robinson et al., (1991)	Subjective evaluation – of 1 <sup>st</sup> year students 2 weeks after training  1 year follow-up telephone interview	Descriptive  Sandler's A statistic for correlated samples	Evaluation:  + = Experiencing intimacy with others, learning about people, interacting with doctoral students, being actively involved, respect for diversity, importance of listening & effective questioning, improved relationship skills, ability to handle difficult situations, active listening,	A significant difference, $p < 0.01$ from pre-test to post-test was found for the entire group that received training. Analysis of only peer counsellors, this significant difference was maintained $p < 0.01$ . Post-test scores were significantly higher than pre-test scores.

	<p>(N = 8 - 1<sup>st</sup> year)</p> <p>(N = 18 - 2<sup>nd</sup> year)</p> <p>Communication skills assessment before training &amp; 2 weeks after training</p> <p>Year 2 data gathered on types of concerns, sex of clients and sex of peer counsellors (N=18).</p>	Chi-square analysis	<p>communication skills, nonverbal cues, being non-judgemental and asking questions rather than giving advice</p> <p>- = None identified</p> <p>Telephone interview:</p> <p>+ = Most still in informal helping role, 2 indicated they helped friend's frequently, 2 were considering careers in helping professions and 1 indicated he felt the programme was good and could help.</p> <p>- = None identified.</p>	Chi square analysis conducted on year 2 data. No significant difference for types of concerns presented. Number of contacts for male & female clients was statistically different $p < 0.01$ with more contacts for females. Female counsellors reported more helping incidents $p < 0.01$ than males.
Wyman et al., (2010)	<p>Questionnaires complete at baseline and 4months later</p> <p>(N = 268) trained</p> <p>(N = 185) untrained</p> <p>Suicide perceptions and norms</p> <p>Social connectedness</p> <p>Behaviours with peers</p>	<p>2 level linear mixed effects model</p> <p>Generalised mixed models</p>	N/A	<p>Peer leaders reported more positive expectations that adults at school help suicidal students <math>&lt; 0.001</math>, more rejection of codes of silence <math>p &lt; 0.002</math>, decreased maladaptive coping attitudes <math>p &lt; 0.01</math>.</p> <p>Training increased norms for help-seeking from adults at school <math>p &lt; .00</math>, use of the Sources of Strength coping resources <math>p &lt; .002</math> and the number of identified trusted adult's <math>p &lt; .001</math>. School engagement increased in trained peer leaders <math>p &lt; .043</math>, increased support to peer's <math>p &lt; .015</math> and was positive on connecting distressed peers to adult's <math>p = .08</math></p>

+ = Advantages - = Disadvantages N/A = non-applicable

**Chart 1: CCAT Domain Scores**



**Table 4: Summary of CCAT Quality ratings and strengths and weaknesses**

Study	Total Score (/40)	Percentage	Qualitative descriptor	Strengths	Weaknesses
Abu-Rasain & Williams (1999)	31	78	High	Clear background information & objectives Clear results & discussion	Lack of information on ethical matters
Cowie (1998)	27	68	High	Clear detailed introduction Good description of design, results and discussion	Lack of information on ethical matters Little information regarding sampling methods
Cowie et al., (2002)	30	75	High	Detailed information on sampling Results clear and detailed discussion	Detail on ethical matters missing Details of research design and data collection methods unclear
Cowie & Olafsson (2000)	32	80	High	Data collection methods clear Detailed discussion with alternative explanations explored.	Little detail on ethical matters
Guttman (1985)	19	48	Moderate	Clear introduction Good description of design	No information on ethical matters Lack of information on sampling and data collection
Houlston & Smith (2009)	36	90	High	Clear background & aims Ethical matters clear Detailed discussion highlighting strengths/limitations and suggestions for future research Control group	Lack of information on how analysis of discussion groups was completed
McIntyre et al., (1982)	24	60	Moderate	Clear information on background and objectives Detailed description of programme implementation Control group Follow up data – 3 months	Little detail on ethical matters Results unclear
Naylor & Cowie (1999)	32	80	High	Good background information and clear aims Detailed information on sampling and clear discussion highlighting strengths and limitations	Little detail on ethical matters
Robinson et al., (1991)	24	60	Moderate	Detailed information on sampling, training and materials used Clear description of results Control group Follow up – 1yr	Little detail on ethical matters Abstract missing Lack of detail in introduction, results & discussion
Wyman et al., (2010)	38	95	High	Randomised trial Control group Large sample size	Reliance on self-report measures No follow-up data

## Overview of studies

Of the ten studies included, 5 were conducted in the UK, 2 in Canada, 2 in the USA and 1 in Saudi Arabia. The dates of published studies ranged from 1982 – 2010. A summary of the included studies can be found in Table 2.

## Methodological quality

The quality of studies was assessed using the CCAT. Overall score, percentage and qualitative descriptor are provided in Table 4. Studies ranged in score from 19-38, 48-95%. Seven studies fell within the high-quality category and three within the moderate category in accordance with descriptors described above. Strengths and weaknesses of each study are highlighted in Table 4.

Details of domain scores are outlined in Chart 1. The majority of studies scored highest for the preliminaries (defined as abstract, title, aims and style). It is notable however that the 3 studies that scored lower in this domain are the oldest studies. Most studies scored lowest within the ethical category due to lack of information or no information provided.

## **Results**

### Study Characteristics

#### *Research Design*

The majority of studies were qualitative or descriptive. One study completed a randomised control trial (Wyman et al., 2010).

#### *Control Conditions*

Four studies used a control condition to evaluate changes for peer mentors. Houlston & Smith (2009) used an age matched group randomly selected from pupils who had applied to become peer counsellors but had not been successful at the recruitment stage.

Robinson et al., (1991) used students who had received training but were not currently active as peer counsellors. McIntyre et al., (1982) used untrained peers who had signed up to complete the course the following year. These papers did

not provide any details of randomisation which indicates there may be a higher risk of bias.

Wyman et al., (2010) randomly assigned schools to intervention or control group condition.

Most studies (n = 6) did not have a control condition.

### *Setting*

#### UK Studies:

Five of the studies were conducted within the UK. One was completed within a north London school. The others did not specify which country in the UK. The school curriculum and relevant policies differ across the UK so this may be an area of bias.

All studies looked at peer support schemes within high-schools. All studies gathered qualitative data to gather feedback from peer supporters using interviews, focus groups and questionnaires. One study also gathered quantitative data (Houlston & Smith, 2009).

#### Non-UK Studies:

Five studies were conducted outside of the UK. Most studies examined the implementation of peer counselling programmes and one evaluated a suicide prevention programme. Three out of the five gathered both quantitative and qualitative data.

#### School setting

The majority of studies did not report whether it was a state or independent school. Only two studies reported this. Two studies were completed within an all-boys school and one within an all-girls school.

### *Sample size*

Sample sizes for mentors varied across the studies. Four studies used multiple schools in their research and therefore reported substantially larger sample sizes

of 42, 80, 268 & 477 respectively (Cowie, 1998; Cowie et al., 2002; Wyman et al., 2010; Naylor & Cowie, 1999).

The remaining six studies were completed in a single school and reported sample sizes of between 7 (Cowie & Olafsson, 2000) and 18 (Robinson et al., 1991).

Only one study reported a power calculation in order to determine sample size needed to detect an effect (Wyman et al., 2010).

### Characteristics of Peer Mentors

#### *Gender*

Nine studies reported on gender. Three were completed in single sex schools. Of the remaining studies, those completed in the UK recruited a greater number of female mentors compared to male (Cowie, 1998; Cowie et al., 2002). Two studies completed outside the UK recruited a greater number of male participants (Guttman, 1985; Robinson et al., 1991) and two recruited a greater number of females. (McIntyre et al., 1982; Wyman et al., 2010).

#### *Age*

Half of the studies reported age ranges for mentors. The overall age range was 13-20. All studies used high-school pupils but as they were completed in a number of countries the age group for high-school pupils varies.

#### *Grade*

Three studies explicitly reported the grade of mentors. This ranged from grades 1-3, grade 11 and year 10. As the studies were conducted across a number of countries it is difficult to compare due to the difference of year labelling in the various education systems.

#### *Race & Ethnicity*

Only two studies reported the ethnicity of mentors.

## Intervention Characteristics

### *Intervention Description*

Studies varied in their description of the intervention provided. The majority of studies gave no specific title of the intervention or programme that peer mentors were trained in but reported components of the training e.g. active listening skills and counselling skills. Three studies referred to a specific programme used to develop the training. McIntyre et al., (1982) based the programme on the "Peer Counselling Starter Kit" by Carr & Saunders (1980). Two models were reported by Robinson et al., (1991) as the basis for the peer counselling programme, "Natural Helpers" by Akita & Mooney, (1982) and "Peer Power" by Tindall & Gray (1985). Finally, Wyman et al., (2010) used the "Sources of Strength" programme by LoMurray (2005).

Three studies did not report on a specific intervention but reviewed PS systems across a number of schools including: befriending, telephone helpline, mediation, mentoring and peer counselling (Cowie, 1998; Cowie et al., 2002; Naylor & Cowie, 1999).

The duration of the peer intervention was reported in the majority of studies (n=9). Duration varied from 4 months (Wyman et al., 2010) to up to 4 years (Cowie, 1998) with the majority of programmes being implemented for a year.

### *Training*

Seven studies gave details of the training provided. There was a large variation in the duration of training provided, ranging from 4 hours (Wyman et al., 2010) to approximately 108 hours across 1 x 3-hour training session a week for nine months (Guttman, 1985). Six studies provided information on who provided the training.

### *Supervision*

The majority of studies (n=8) reported information on supervision arrangements, see Table 2. Supervision was provided by a range of people. Frequency of supervision varied, ranging from weekly to two scheduled follow-up sessions. Two

studies did not report exact frequency but advised that supervision was provided 'regularly'.

### Reported Outcome Characteristics

#### *Measurement Type*

Five of the studies used interviews or focus groups to gather information on the experience of peer mentoring. Seven studies employed questionnaire or evaluation forms to gather data on the experience of mentors. Five studies used pre- & post measures to assess change in skills of peer mentors. One study made use of videotapes to assess changes in demonstration of counselling skills (McIntyre et al., 1982). A summary of the study outcomes can be found in table 3.

#### *Qualitative outcomes*

The majority of studies gathered qualitative information. The method of data analysis was missing from most studies with the majority stating that themes were identified but with no details as to how. Further details provided in table 3.

Key themes that have emerged across the studies include improvements in confidence & self-esteem or self-worth which was reported across four studies (Cowie, 1998; Cowie et al., 2002; Guttman, 1985; Houlston & Smith, 2009).

Three studies gathered information from questionnaires. Results included that mentors found the experience to be positive, reporting feeling less nervous, increased self-awareness (Abu-Rasain & Williams, 1999) and training to be enjoyable and useful (Houlston & Smith, 2009).

Common themes that emerged from the studies in relation to difficulties with being a mentor included lack of support from staff or supervision (Abu-Rasain & Williams, 1999; Cowie et al., 2002), logistical issues (e.g. lack of rooms to meet clients, not enough PSers) (Cowie et al., 2002; Cowie & Olafsson, 2000) and the sense of responsibility (Abu-Rasain & Williams, 1999).

### *Quantitative outcomes*

Half of the studies gathered quantitative data, outlined in Table 3. Studies indicated improvements in self-concept (Abu-Rasain & Williams, 1999) and self-esteem (Houlston & Smith, 2009) post training. Peer counsellors were also shown to make significantly fewer errors in providing appropriate and empathic responses to problem statements (McIntyre et al., 1982) and exhibited a significant improvement in communication skill scores from pre-test to post-test (Robinson et al., 1991). Wyman et al., (2010) found that the intervention improved peer leaders' adaptive norms about suicide as well as positive coping, connectedness to adults, and supportive behaviours with their friends.

### *Follow-Up Data*

The majority of studies did not report follow-up data.

## **Discussion**

PS systems are considered to be an effective method of providing support within schools to address bullying, social support and academic support (Mentoring & Befriending Foundation, 2010). Research supporting such programmes is typically based on qualitative studies and self-report measures. The benefits to students utilising such systems has been examined yet there is little research on the impact of such systems on the peer mentors. This review examined the current literature on what outcomes had been found for peer mentors.

### *Strengths in Existing Literature*

The majority of papers interviewed mentors in order to find out about their experience of mentoring and highlighted the benefits and difficulties associated with being a mentor. This allows greater detail about the individuals experience. The studies also reported on difficulties with implementation and provided suggestions as to the level of support and investment needed in order to implement programmes successfully which is helpful for schools considering a PS programme.

The studies were conducted across different countries which suggests that these programmes are likely to be useful cross-culturally.

The few studies that did make use of control groups found significant benefits to peer mentors including: positive coping and supportive behaviours (Wyman et al., 2010), improvements in self-esteem (Houlston & Smith, 2009) and communication skills (McIntyre et al., 1982; Robinson et al., 1991). Follow up measures also indicated that skills in communication were maintained over time (McIntyre et al., 1982) and that those involved in such schemes had continued involvement in a helping role (Robinson et al., 1991).

The findings of this review are consistent with previous literature that has highlighted the benefits to peer mentors of being involved in such schemes (Houlston et al., 2009; Mentoring & Befriending Foundation, 2010).

### *Limitations in Existing Literature*

Few studies in the review used comparisons or matched control conditions to examine the impact of the intervention. Half the studies included quantitative measures and follow-up data was limited or absent.

The sample size of the majority of studies was low and therefore it is difficult to generalise findings. Only one study reported a power calculation to determine sample size. This was absent from the majority of studies therefore they may have been underpowered.

Study characteristics such as specific details of training and supervision were underreported. Student characteristics were also missing with few studies reporting basic demographic information such as age and ethnicity. Finally, few studies referred to a formal intervention title and instead made reference to components of training which may make it difficult to replicate findings.

There are significant limitations in regard to the outcomes collected. The vast majority of outcomes were qualitative using interview or questionnaires which are subjective and difficult to generalise from. Five studies collected quantitative data, but the majority had sample sizes too low to provide any substantial effect.

The majority of studies reported were completed within a western culture and the impact of cultural norms is likely to impact on the acceptability of such schemes. This issue is considered in Abu-Rasain & Williams (1999) study.

Several of the included studies were completed by the same research team which is a potential source of bias.

#### *Strengths of this review*

This review examined literature related to outcomes for peer mentors and was inclusive as it encompassed all study designs and no date ranges were applied. A high level of agreement was found between raters in the sampled papers. Registration of the study with Prospero ensured key elements of the review process were stated in advance.

#### *Limitations of this review*

There are several limitations of the current review. The search terms and keywords used were narrowed to focus on students rather than adolescents in order to capture the most relevant studies. However, it is possible that this failed to capture all studies delivered in high-schools and therefore may not have captured all of the available literature. Studies providing an intervention targeted to young people with a learning disability or autism diagnosis were excluded from the study as this review was looking at universal approaches provided and available to anyone attending the high-school. It was deemed that consideration of approaches used for individuals with a developmental or intellectual disability would merit a review in its own right.

Due to the heterogeneity of studies and primarily qualitative outcomes reported, the review completed a narrative synthesis providing a largely descriptive review of the literature. The nature of the existing literature did not allow for a meta-analysis to be completed. In order for a future meta-analysis to be completed studies must employ more rigorous research methods to allow for comparison of reported effects and allow for more significant conclusions to be made.

Titles and abstracts were screened only by the primary researcher. Therefore, this may have led to some articles being missed.

### *Recommendations for Future Research*

Future studies could make use of experimental designs and control group comparisons, and employ more rigorous and reproducible methodology in order to provide meaningful conclusions about the usefulness of PS programmes.

Clear gender differences emerged in recruitment of mentors and one study attributed this to 'macho' values in the school making it difficult to recruit males (Cowie, 1998). With some studies outwith the UK recruiting more males' future research could explore cultural differences, stereotypes and beliefs regarding engagement in such programmes

Future studies could make clear the specific details of the intervention to allow for replication of the intervention employed in order to expand the research in this field and identify which specific components are fundamental in providing effective interventions.

The use of validated and reliable measures tested for an adolescent population (e.g. the KIDSCREEN-52 Quality of Life Measure, Ravens-Sieberer et al., 2005) as well as qualitative methods and self-report measures would help to reduce risk of bias and allow for repetition and true comparisons to be made between studies.

Future studies would benefit from collection of follow-up data to establish whether the benefits provided from being a peer mentor are sustained in the long term.

### *Conclusions*

This review explored whether peer mentoring leads to beneficial outcomes for peer mentors. The existing literature suggests that peer mentoring can be useful and beneficial to peer mentors in developing a range of skills. However, problems have also been identified which relate primarily to a lack of support, logistical issues and the stigma related to pupils attending a PS service. There is a lack of research in this area and there is a need for a greater number of high quality studies to examine how to run effective peer mentoring programmes to produce the best outcomes for both mentees and mentors.

## References

- Abu-Rasain, M. H. M., & Williams, D. I. (1999). Peer counselling in Saudi Arabia. *Journal of Adolescence, 22* (4), 493-502.
- Akita, J., & Mooney, C. (1982). *Natural Helpers: A Peer Support Program, Naturally: a Leader's Guide*. Comprehensive Health Education Foundation.
- Carr, R., & Saunders, G. (1980). *Peer counselling starter kit*. Victoria, British Columbia, Canada: University of Victoria.
- Coleman, N., Sykes, W., & Groom, C. (2017). *Peer support and children and young people's mental health*. Independent Social Research. Department for Education.
- Colvin, J. W., & Ashman, M. (2010). Roles, risks, and benefits of peer mentoring relationships in higher education. *Mentoring & Tutoring: Partnership in Learning, 18* (2), 121-134.
- Cowie, H. (1998). Perspectives of teachers and pupils on the experience of peer support against bullying. *Educational Research and evaluation, 4* (2), 108-125.
- Cowie, H., Naylor, P., Talamelli, L., Chauhan, P., & Smith, P. K. (2002). Knowledge, use of and attitudes towards peer support: a 2-year follow-up to the Prince's Trust survey. *Journal of Adolescence, 25* (5), 453-467.
- Cowie, H., & Olafsson, R. (2000). The role of peer support in helping the victims of bullying in a school with high levels of aggression. *School psychology international, 21* (1), 79-95.
- Crowe, M., & Sheppard, L. (2011). A review of critical appraisal tools show they lack rigor: alternative tool structure is proposed. *Journal of Clinical Epidemiology, 64* (1), 79-89.
- Crowe, M., Sheppard, L., & Campbell, A. (2012). Reliability analysis for a proposed critical appraisal tool demonstrated value for diverse research designs. *Journal of Clinical Epidemiology, 65* (4), 375-383.

- DuBois, D. L., & Silverthorn, N. (2005). Natural mentoring relationships and adolescent health: Evidence from a national study. *American journal of public health, 95* (3), 518-524.
- Garringer, M., & MacRae., P. (2008). *Building Effective Peer Mentoring Programs in Schools: An Introductory Guide*. Mentoring Resource Center.
- Guttman, M. A. J. (1985). A peer counselling model: Social outreach. *Canadian Journal of Counselling and Psychotherapy/Revue canadienne de counseling et de psychothérapie, 19* (3-4).
- Hootman, J. M., Driban, J. B., Sitler, M. R., Harris, K. P., & Cattano, N. M. (2011). Reliability and validity of three quality rating instruments for systematic reviews of observational studies. *Research synthesis methods, 2* (2), 110-118.
- Houlston, C., & Smith, P. K. (2009). The impact of a peer counselling scheme to address bullying in an all-girl London secondary school: A short-term longitudinal study. *British journal of educational psychology, 79* (1), 69-86.
- Houlston, C., Smith, P. K., & Jessel, J. (2009). Investigating the extent and use of peer support initiatives in English schools. *Educational Psychology, 29* (3), 325-344.
- Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics, 33* (1), 159-174.
- LoMurray, M. (2005). Sources of strength facilitators guide: Suicide prevention peer gatekeeper training. *Bismarck, ND: The North Dakota Suicide Prevention Project*.
- Mentoring and Befriending Foundation (2010). *Peer mentoring in schools: a review of the evidence base of the benefits of peer mentoring in schools including findings from the MBF Outcomes Measurement Programme*. Retrieved June 2018, from <https://www.bl.uk/collection-items/peer-mentoring-in-schools-a-review-of-the-evidence-base-of-the-benefits-of-peer-mentoring-in-schools-including-findings-from-the-mbf-outcomes-measurement-programme>.

McIntyre, D. R., Thomas, G. H., & Borgen, W. A. (1982). A peer counselling model for use in secondary schools. *Canadian Counsellor*, 17(1), 29 - 36

Naylor, P., & Cowie, H. (1999). The effectiveness of peer support systems in challenging school bullying: the perspectives and experiences of teachers and pupils. *Journal of adolescence*, 22 (4), 467-479.

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., ... & Duffy, S. (2006). *Guidance on the conduct of narrative synthesis in systematic reviews*. ESRC Methods Programme: University of Lancaster, UK.

Ravens-Sieberer, U., Gosch, A., Rajmil, L., Erhart, M., Bruil, J., Duer, W., ... & Mazur, J. (2005). KIDSCREEN-52 quality-of-life measure for children and adolescents. *Expert review of pharmacoeconomics & outcomes research*, 5 (3), 353-364.

Robinson, S. E., Morrow, S., Kigin, T., & Lindeman, M. (1991). Peer counselors in a high school setting: Evaluation of training and impact on students. *The School Counselor*, 39 (1), 35-40.

Tindall, J. A., & Gray, H. D. (1985). *Peer power: Becoming an effective peer helper: Book 1. Introductory program*. Muncie, IN: Accelerated Development, Inc.

Wyman, P. A., Brown, C. H., LoMurray, M., Schmeelk-Cone, K., Petrova, M., Yu, Q., ... & Wang, W. (2010). An outcome evaluation of the Sources of Strength suicide prevention program delivered by adolescent peer leaders in high schools. *American journal of public health*, 100 (9), 1653-1661

## **Chapter 2: Major Research Project**

Testing two models of delivering and maintaining life skills training in a secondary school setting.

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## **Plain English Summary**

### **Title**

Delivering life skills training in a secondary-school.

### **Background**

The Scottish Government is committed to improving health and wellbeing in young people (Scottish Government, 2012). The provision of the 'My Big Life' programme for young people aims to improve knowledge and confidence within attendees who aim to learn life skills (Williams, 2011). Schools need to develop the role of personal & social education (PSE) classes to explore issues around mental health and wellbeing (Scottish Executive, 2005). However, the capacity for schools to deliver wellbeing approaches is limited by the lack of staff to introduce them. Therefore, the use of peer mentors (young people trained to deliver classes) to help deliver such training offers the potential to introduce life skills programmes in schools (such as the current one to be tested- 'My Big Life') and potentially allows for a self-developing and sustaining model within schools.

### **Aims**

The study tested two ways of delivering peer mentoring and identified outcomes for class facilitators and students:

- 1) CBT (Cognitive Behavioural Therapy) practitioner (expert) training of 6<sup>th</sup> year pupils as class facilitators
- 2) Peer-led training (non-expert) by graduating pupils to the next cohort of 6<sup>th</sup> year class facilitators

## **Methods**

Class facilitators were asked to complete questionnaires on what skills they learned, how confident they felt delivering the classes as well as ratings of their own level of wellbeing.

Focus groups provided further feedback on their training and teaching experience, alongside their ability to implement the skills in their own life.

In addition, questionnaires were used to gain feedback from third year students receiving the subsequent teaching by class facilitators, to rate how they found the sessions as well as ratings of wellbeing change.

## **Main findings & conclusions**

### Students

There was a significant improvement in wellbeing for students with initial low well-being scores provided with teaching by CBT-trained class facilitators. There was no significant change in those with initial high wellbeing scores. There were no significant changes in students provided with teaching by peer-trained class facilitators. Overall, those with low initial wellbeing scores showed greater improvement than those with high wellbeing scores. Students rated the intervention as being beneficial and felt it had improved their understanding.

### Class facilitators

Class facilitators identified a number of benefits from participating in the programme including developing skills and improving confidence. Difficulties and suggested improvements were also highlighted.

Overall, peer training appears to be a worthwhile option to develop wellbeing skills within schools and is a sustainable model of training to pass on skills to preceding year groups.

## **References**

1. Scottish Executive. (2005). The Mental Health of Children and Young People: A Framework for Promotion, Prevention and Care. <http://www.gov.scot/Resource/Doc/77843/0018686.pdf>
2. Scottish Government. (2012). A guide to getting it right for every child. <http://www.gov.scot/resource/0042/00423979.pdf>
3. Williams, C., McClay, C. A., Matthews, L., McConnachie, A., Haig, C., Walker, A., and Morrison, J. (2018). Community-based group guided self-help intervention for low mood and stress: randomised controlled trial. *The British Journal of Psychiatry*, 212 (2), 88-95.

**Word Count: 494**

## **Abstract**

**Objectives:** To evaluate the feasibility of a peer delivered wellbeing intervention for pupils within a Scottish secondary school setting comparing peer-trained class facilitators and CBT-trained class facilitators. To gather feedback on the experience of being a class facilitator.

**Design:** A pre-post, mixed-methods design was utilised.

**Setting:** Religious Moral Citizenship and Education (RMCE) classes in a Scottish secondary school.

**Participants:** Nineteen sixth year class facilitators were recruited and randomly allocated to peer-led (N = 10) or CBT (N = 9) training.

Eight classes of third year secondary school pupils were allocated to two conditions. Four classes (n = 100) taught by peer-trained class facilitators and four classes (n = 95) taught by CBT-trained class facilitators

**Intervention:** 'My Big Life' is a shortened, simplified version of the Living Life to the Full (LLTFF) young person's course. My Big Life' contains four sessions centred upon feelings, behaviour, thinking and problem solving. It was delivered over four weeks by the class facilitators.

**Outcome measures:** The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) was administered at baseline, post-intervention and three-month follow-up. The Training Acceptability Rating Scale was administered to the class facilitators post training and to the 3<sup>rd</sup> year students' post-intervention. Two focus groups were completed post-intervention with the peer-trained class facilitators (n = 4) and CBT trained class facilitators (n = 3).

**Results:** There was a significant improvement in wellbeing for pupils with initial low well-being scores provided with training by CBT trained class facilitators (p = 0.01). Overall, those with lower initial wellbeing scores showed greater improvement than those with initial high wellbeing scores. Pupils rated the intervention as being beneficial. Class facilitators identified a number of benefits from participating in the programme. Difficulties and suggested improvements were also highlighted.

**Conclusions:** A short intervention delivered by student class facilitators can lead to wellbeing improvements, particularly for those with lower initial wellbeing scores. Peer-led training appeared to be as effective as CBT led training and suggests that peer training may be an effective model to transfer skills to further year groups. However, further research is warranted in order to make more substantial recommendations.

**Keywords:** School, wellbeing, peer, mentoring, CBT

## **Introduction**

Prevalence rates of mental health issues affecting young people in Scotland indicate that 10% have substantial mental health problems affecting their thoughts, feelings, behaviour and impacting engagement with learning (PHIS, 2003). Schools have a key role in supporting the mental health and wellbeing of young people. The Mental Health Strategy 2017-2027 (Scottish Government, 2017) emphasises that every child and young person should have access to emotional and mental well-being support in school. Peer-support is highlighted as an area to be developed and schools are encouraged to develop personal and social education (PSE) sessions to explore issues around mental health and wellbeing (Scottish Executive, 2005).

## **Peer Training**

Peer-training for health and wellbeing topics seems to be an effective and efficient way of promoting health and wellbeing (Sprengel & Job, 2004). Wyman and colleagues (2010) used peer leaders to deliver a suicide prevention programme to schools in America and found it enhanced protective factors for students (help-seeking, school engagement).

The experience of being a peer-trainer can have a positive impact and studies have reported a number of gains in regard to skill development, improved confidence and self-esteem (Cowie et al., 2002; Houlston & Smith, 2009)

Studies comparing peer-led with adult-led interventions show that peer-led interventions are equally if not more effective than adult-led interventions (Erhard, 1999; Mellanby, Rees & Tripp, 2000).

A theoretical framework for understanding the basis of peer-led interventions is dynamic social impact theory (DSIT) (Latané, 1996). DSIT suggests that the likelihood of changing behaviour increases if the person communicating is similar and credible, the communication is immediate; and there are multiple persuasive change agents communicating about a new practice (Simoni, Franks, Lehavot & Yard, 2011). Research has shown that these factors were key in the success of

peer health advocates in delivering a peer-led HIV prevention intervention (Dickson-Gomez, Weeks, Martinez & Convey, 2006).

Normalization Process Theory (NPT) can also help us to understand the process of implementing new ways of practice within institutional settings (May & Finch, 2009). Guidance is provided on implementing complex interventions and assessing feasibility and suggests the use of qualitative and quantitative methods to test for acceptability, understand barriers to participation and estimate response rates. (MRC, 2006).

### LLTTF

Living Life to the Full (LLTTF) is a programme that teaches a range of life skills based on a CBT approach. The adult version of LLTTF was found to be effective in reducing depression, anxiety and impaired social function (Williams et al., 2018). The LLTTF young person's course (LLTTF-YP) aims to provide access to high quality, practical and user-friendly training in life skills. It consists of 8 CBT based life skills topics addressing areas such as negative thinking and confidence (Williams, 2011). The young person's version is currently being used in schools across the UK. The programme is shown to be popular with the potential to be an affordable and effective approach to school-based mental health interventions (Boyle, Lynch, Lyon & Williams, 2011). It was delivered to staff within East Devon secondary schools and the results indicated an overall improvement in well-being, with the largest difference in students who had lower initial wellbeing scores (Department for Education, 2015). A shortened version of LLTTF-YP, titled 'My Big Life' was created which simplified the previous course, and an independent study is due to report on its efficacy. 'My Big Life' was used in this study.

### My Big Life

'My Big Life' is a shortened, simplified version of the (LLTTF) young person's course, making it easier to timetable as it consists of only 4 sessions:

- How to get a big life; understanding your feelings (self-formulation)
- How to think in a big life way (thinking)
- Building your big life; overcoming problems (behavioural activation)

- Getting a big life by building inner confidence (thoughts and behaviour)

### **Present Study**

The present study followed protocol previously developed for the LLTTF-YP. Previously the classes were delivered by teachers trained by a CBT nurse practitioner (one day training) and informally through some peer-delivery by pupils trained initially by teachers. The schools had adopted the course into the curriculum for all students with positive feedback about its use.

The peer mentoring programme started at St Andrews and St Bride's school in 2015/16. A BABCP accredited CBT nurse practitioner (AM) delivered an initial training course in LLTTF to the cohort group of 6<sup>th</sup> year students in October 2016. Two students from this year volunteered to train the next year's class facilitators. They were provided with training in 'My Big Life' by the CBT practitioner in June 2017.

#### *Training*

Training sessions were delivered to class facilitators in October 2017. One 2-hour training session was delivered by an expert CBT practitioner to one group. The other group received a 2-hour training session delivered by two sixth year pupils from the year above using manualised /structured delivery materials. The class facilitators were provided with structured training resources for implementation, training packs, worksheets, a CD containing speaker notes and un-editable slides for presentation during lessons.

#### *Teaching*

The 'My Big life' classes were delivered to third year students over four Religious Moral Citizenship and Education (RMCE) lessons once per week between October 2017 to November 2017 by class facilitators.

## *Fidelity*

Ten percent of classes were rated by the researcher for fidelity to the programme (see appendix 5). The researcher was blinded to class facilitators training condition. Adherence and fidelity to the programme was assessed using lesson plans consisting of a slide set and scripts. Each session has a list of aims and objectives. The external observer (CM) rated adherence on a scale (strongly agree, agree, neutral, disagree and strongly disagree) in reference to the slide set and accompanying session notes.

The study was carried out in the 2017/18 academic year comparing:

- 1) CBT led training of 6<sup>th</sup> year students as class facilitators
- 2) Peer-led training to the next cohort of 6<sup>th</sup> year students as class facilitators

This study examined the experience of teaching/training and the impact of delivery of course resources by both groups. Facilitator training confidence, knowledge and fidelity to the model were also investigated.

## Hypotheses

1. Delivery
  - The satisfaction and acceptability of training will be equal in both groups
  - Adherence and fidelity to the model will be equal in both groups
2. Class facilitators will find delivering the training helpful for their own wellbeing
3. 3<sup>rd</sup> year students with lower initial wellbeing scores will show an increase in wellbeing scores with equivalent gains in both groups. Those with high initial scores will show no significant change from baseline.
4. The rate of recommendation, assessing the benefit and harms of the intervention, will be equivalent in both groups

## **Methods**

### Design

This study assessed two models of delivering and maintaining life skills in a secondary school setting. The study compared the delivery of the 'My Big Life' programme to 3<sup>rd</sup> year pupils during RMCE classes using student class facilitators trained by an CBT practitioner compared to peer trained facilitators. A mixed methods analysis was used to gather both qualitative and quantitative data. Outcome measures were used to assess wellbeing and evaluate the programme. A semi-structured interview schedule was used to structure focus group discussions with class facilitators. Thematic analysis (Braun & Clarke, 2006) was used to examine transcripts.

### Recruitment and participants

Sixth year pupils (17-18 year olds) were identified as class facilitators. The guidance teacher spoke to pupils regarding the programme and requested those interested to participate. Sixth year pupils were considered to be of most suitable age to provide teaching to younger pupils. The classes were delivered to third year high school pupils (13-14 year olds) as the target group.

### Procedures

#### *Setting*

This study took place in a high school in East Kilbride, Glasgow. The targeted year group had nine RMCE classes, of which eight participated in this study. The school currently has no standardised curriculum around mental health and wellbeing.

#### *Ethical approval*

Ethical approval for the study was obtained via the University of Glasgow Medical and Veterinary and Life Sciences ethics panel (see appendix 9) and from the local authority education department (see appendix 10).

### *Consent*

Informed consent was sought from all pupils and opt out forms were administered to all parents / guardians (See Appendix 2-4). Those who did not consent received the classes but were not evaluated. Pupils who consented to participate completed the baseline outcome measure and demographic questionnaire (appendix 6) in class.

### *Allocation*

Allocation of class facilitators to CBT or peer-led training was randomized using computer-generated random numbers. Two class facilitators were allocated to each of the eight classes, four from the peer-trained condition and four from the CBT-trained condition. Facilitators were allocated according to their timetables.

### Outcome measures

Outcome measures were selected based on the aims of the intervention. Measures were administered to each class by the allocated class facilitators.

#### The Warwick-Edinburgh Mental Well-being Scale (WEMWBS)

The WEMWBS (Clarke et al., 2011; appendix 7) assessed wellbeing of the class facilitators and participating students. The WEMWBS is a 14 item self-report questionnaire validated for measuring mental wellbeing and suitable for use in those aged 13 years to adulthood (Clarke et al., 2011). Evaluation of the WEMWBS found a change in score of 8 or more equated to statistical importance (Maheswaran, Weich, Powell & Stewart-Brown, 2012). There is no 'clinical' cut-off however higher scores indicate greater wellbeing. For the purposes of this study scores were categorised as low wellbeing ( $\leq 41$ ) and high wellbeing (42-70) in accordance with Scottish population norms (Scottish Government, 2009).

#### The Training Acceptability Rating Scale (TARS)

The TARS (Davis, Rawana & Capponi, 1989; appendix 8) was used to assess training quality and any benefits or harm the training presents. It was administered to class facilitators after receiving training and to pupils after the

final session of 'My Big Life'. The TARS has a mixture of quantitative and qualitative elements.

### Statistical methods

Descriptive statistics described demographics. WEMWBS was assessed at baseline, post intervention and three-month follow up for the students. Results from the TARS were assessed post-training for class facilitators and post intervention for students. T-tests or their non-parametric equivalent were used to assess between-group differences. Chi-squared was used to compare those with initial low wellbeing and high wellbeing scores. Qualitative data was gathered from the TARS forms and focus group interviews.

### Qualitative analysis

Thematic analysis was used to evaluate focus group transcripts following thematic analysis guidelines (Braun & Clarke, 2006). Initial codes were identified through independent coding of full interview transcripts by two authors (CM & CMc). This process led to identification and refining of themes.

## **Results**

### Recruitment

#### Students

Eight RMCE classes comprising 202 pupils were invited to take part in this study. 195 consented to take part (96.5% uptake rate). Seven pupils did not complete consent forms. There were no parental refusals. 100 pupils were allocated to teaching from the PT group, and 95 were allocated to teaching from the CBT group.

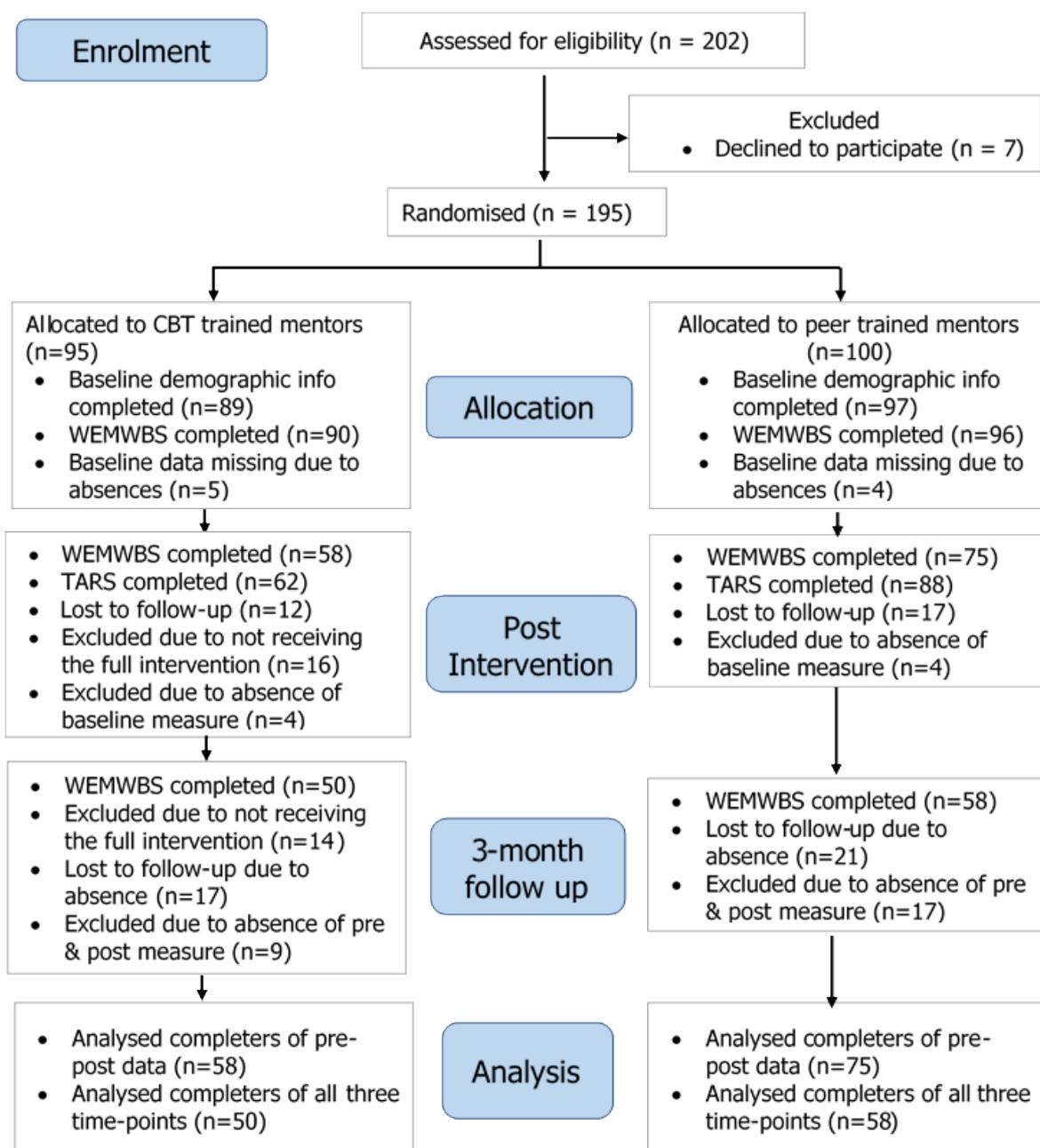
#### Class facilitators

Nineteen class facilitators were trained to deliver the 'My Big Life' intervention. Ten were randomly allocated to the PT condition and nine allocated to the CBT condition. All class facilitators completed the TARS questionnaire following training. Two class facilitators were allocated to each class.

## Fidelity

The external observer (CM) observed 10% of classes (n=3). All classes covered the slides and the content relating to each slide and stayed on topic. Facilitation of group discussion and presenting the material in an engaging manner varied across classes.

**Figure 1: CONSORT diagram outlining recruitment and follow-up for students**



## **Outcomes for students**

### Questionnaire completion

Baseline data was collected for 95.3% (n = 186) of participants, 68.2% (n = 133/195) completed post intervention and 55.4% (n = 108/195) completed 3-month follow-up measures. These datasets were used for statistical analysis. One classes data were excluded due to not receiving the full intervention and missing data sets were excluded (see Figure 1. above). Analysis was completed of baseline scores for completers versus those who dropped out. There were no significant differences in baseline scores for completers (M = 49.4, SD = 8.71) and drop-outs (M = 50.1, SD = 10.72);  $t(94) = -0.35, p = 0.73$  in the peer trained condition or the CBT condition for completers (M = 48.2, SD = 7.68) and drop outs (M = 47.7, SD = 9.83);  $t(88) = 0.27, p = 0.79$ .

### Sample characteristics

Demographic data are summarised in Table 1. There were no statistically significant differences between group characteristics at baseline.

Peer = classes delivered by peer trained class facilitators

CBT = classes delivered by CBT trained class facilitators

**Table 1: Demographic characteristics at baseline**

<b>Variable</b>	<b>Total Sample (% of respondents)</b>	<b>Peer</b>	<b>CBT</b>
Age	(N = 184)	(N = 96)	(N = 88)
Mean (SD)	13.7 (0.47)	13.7 (0.46)	13.7 (0.48)
Gender	(N = 185)	(N = 96)	(N = 89)
Male	87 (47%)	42 (43.7%)	45 (50.6%)
Female	98 (53%)	54 (56.3%)	44 (49.4%)
Ethnicity	(N = 186)	(N = 97)	(N = 89)
White (Scottish)	161 (87%)	79 (81.4%)	82 (92%)
Mixed Race	3 (1.6%)	1	2
Chinese	4 (2.1%)	2	2
White European	3 (1.6%)	1	2
Pakistani	5 (2.7%)	5	0
Indian	2 (1%)	2	0
White English	1 (0.5%)	1	0
Scottish/Indian	1 (0.5%)	1	0
Arab/Scottish	1 (0.5%)	1	0
Scottish/Italian	1 (0.5%)	1	0
Scottish/Pakistani	2 (1%)	2	0
Black African	1 (0.5%)	0	1
Missing	1 (0.5%)	1	0
SIMD	(N = 134)	(N = 73)	(N = 61)
Most deprived 15%	3 (2.2%)	1 (1.4%)	2 (3.3%)
Most deprived 30%	12 (9%)	6 (8.2%)	6 (9.8%)
Rank between 2093 – 6976	119 (88.8%)	66 (90.4%)	53 (86.9%)

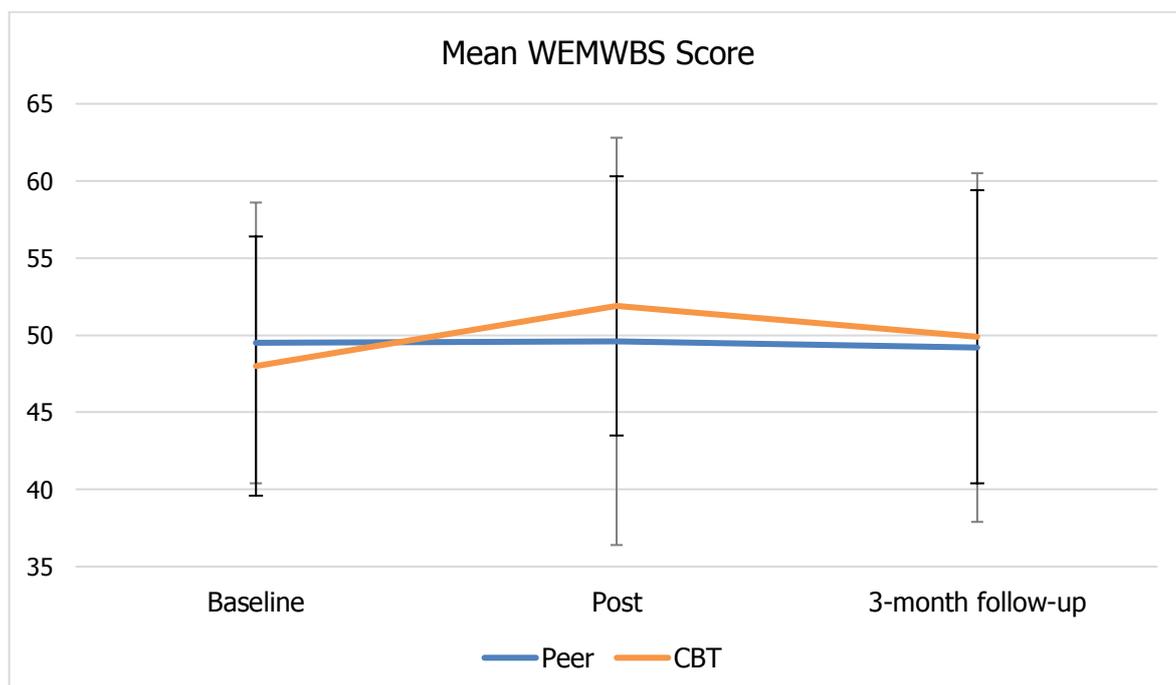
WEMWBS Scores – between group comparisons

**Table 2: Means and Standard Deviations (S.D) of WEMWBS at baseline, post intervention and 3-month follow-up**

Variable	Peer	CBT	P values
WEMWBS Baseline score	(N = 96) 49.5 SD = 9.1	(N = 90) 48 SD = 8.4	0.25
WEMWBS Post intervention score	(N =75) 49.7 SD = 13.2	(N = 58) 51.6 SD = 8.4	0.75
WEMWBS 3-month follow-up score	(N = 58) 49.2 SD = 11.3	(N = 50) 50.2 SD = 9.5	0.48
Mean difference from Baseline - Post	(N = 75) 0.33 SD =10.5	(N = 58) 3.3 SD = 10.3	0.58
Mean difference from Baseline – Follow-up	(N = 58) 0.6 SD = 9.6	(N = 50) 2.3 SD = 12	0.42
Mean difference from Post – Follow-up	(N = 58) 0.2 SD = 11.5	(N = 50) -1.3 SD = 10.7	0.94

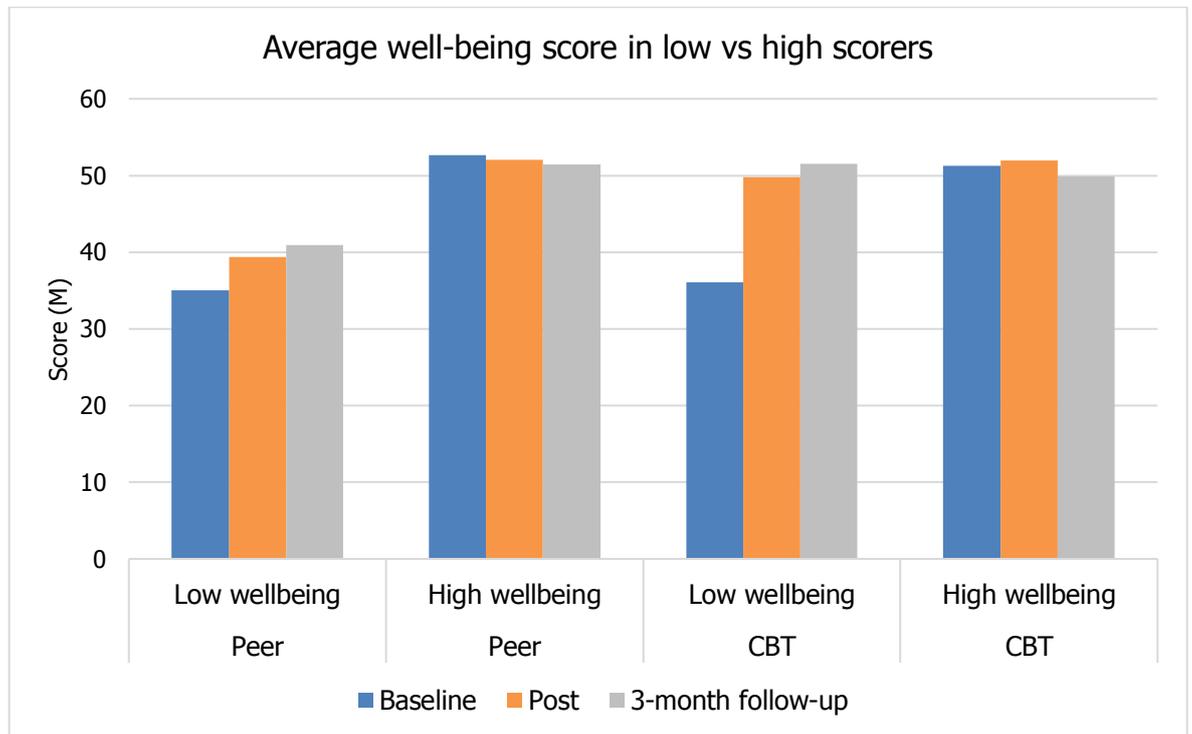
There were no significant differences in mean WEMWBS score or change in score between groups.

**Chart 1: Mean WEMWBS Score across time-points with Standard Error bars**



Comparison of low vs high pre-test scores in both groups

**Chart 2: Graph of mean score in low vs high scorers across time-points**



**Table 3: Means and Standard Deviations (S.D) of WEMWBS at baseline, post intervention and 3-month follow-up in low vs high pre-test scores in both groups**

Variable	Peer		CBT	
	Low Wellbeing	High Wellbeing	Low Wellbeing	High Wellbeing
WEMWBS Baseline	(N =17) 35.06 SD = 4.14	(N = 79) 52.64 SD = 6.53	(N = 19) 36.05 SD = 3.34	(N =71) 51.25 SD = 6.2
WEMWBS Post	(N = 14) 39.36 SD = 11.6	(N = 61) 52.06 SD =12.47	(N =10) 49.8 SD = 7.49	(N =48) 51.92 SD = 8.66
WEMWBS 3-month follow-Up	(N =12) 40.92 SD = 12.05	(N = 46) 51.41 SD = 10.18	(N =9) 51.55 SD = 7.76	(N =41) 49.85 SD = 9.88
Mean difference from Baseline-Post	(N = 14) 3.43 SD =10.75	(N =61) -0.38 SD = 10.37	(N =10) 14.2 SD = 8.1	(N =48) 1.06 SD = 9.3
Mean difference from Baseline-Follow-up	(N =12) 6.08 SD = 11.07	(N =46) -0.62 SD = 9.4	(N =9) 0.5 SD = 9.7	(N =41) -0.7 SD = 10.5
Mean difference from Post-Follow-up	(N =12) 3.08 SD = 15.15	(N =46) -0.47 SD = 12.4	(N=9) 2.6 SD = 8.2	(N=41) -2.05 SD = 11.12

Those with initial low wellbeing scores showed a greater improvement in score in both groups than those with high wellbeing. Those in the Peer-trained group had the highest change in score from baseline to post. These gains appeared to be maintained at follow-up for the low scorers but scores reduced slightly for the high scorers.

**Table 4: Chi-square analysis of change in score in low vs high scorers in both groups**

Group		Yes (improved by 8 points or more)	No	Total	P value
Peer	Low wellbeing range (0-41)	N = 4 (28.6%)	N = 10 (71.4%)	14	0.46
	High wellbeing range (42-70)	N = 11 (18%)	N = 50 (82%)	61	
CBT	Low wellbeing range (0-41)	N = 7 (70%)	N = 3 (30%)	10	<b>0.01</b>
	High wellbeing range (42-70)	N = 7 (14.6%)	N = 41 (85.4%)	48	

Fisher’s exact test indicated there was no statistically significant association between initial wellbeing score and improvement on the WEMWBS in the peer-trained group ( $p = 0.46$ , odd ratio = 0.55 CI = 0.145 – 2.08). In the CBT-trained group there was a significant association, with those with an initial low score more likely to show an improvement  $p = 0.01$ . The odds ratio is .073 (CI .015-.352). This indicates that the odds of improving in score are 13.7 times more likely in those with lower initial scores.

## TARS Outcomes

Students completed the TARS questionnaire after the final teaching session, (N=88) in the peer-trained and (N=62) in CBT-trained. There were no significant differences between peer (M=3.09, SD=0.81) and CBT trained conditions (M=3.2, SD=0.84);  $t(28) = 0.38, p = 0.71$ . The remaining questions on the TARS require qualitative responses (questions 16-18).

**Table 5: Qualitative responses from students TARS**

<b>Group</b>	<b>What was the most helpful part of the workshop for you personally?</b>	<b>What changes would you recommend?</b>	<b>Any other comments?</b>
Peer	<ul style="list-style-type: none"><li>• Problem-solving plan</li><li>• Helping confidence</li><li>• Learning to stay positive</li></ul>	<ul style="list-style-type: none"><li>• Not as many worksheets</li><li>• More organised</li><li>• More interactive.</li></ul>	<ul style="list-style-type: none"><li>• More time for trainers to prepare</li><li>• The course was boring but the trainers were very good</li><li>• Have teachers and the wider school informed of the scheme.</li></ul>
CBT	<ul style="list-style-type: none"><li>• The thoughts, feelings, behaviour cycle</li><li>• Helping confidence</li><li>• Talking about feelings.</li></ul>	<ul style="list-style-type: none"><li>• More interactive</li><li>• More time to cover content</li><li>• Make it more relatable</li></ul>	<ul style="list-style-type: none"><li>• Remove the meditation exercises</li><li>• Make it more interactive</li><li>• The teaching was helpful</li></ul>

## **Outcomes for Class facilitators**

### WEMWBS Scores

Due to the low numbers, statistical analysis was not possible to make any meaningful comparison between groups. Of the sixteen allocated class facilitators, eleven completed the WEMWBS at baseline and eight post intervention. Three-month follow-up data was not completed as the class facilitators participating in the study had left school. Of the 8 who completed pre-and post-measures, six showed an improvement from pre-to post and two showed a reduction in score. All facilitators scores fell within the high wellbeing range at baseline. Post intervention, one person's score was within the low wellbeing range.

### TARS Outcomes

Class facilitators completed the TARS questionnaire after they received the training (N = 9) in CBT-trained group and (N = 10) in Peer-trained group. There were no significant differences between the total TARS scores in the CBT-trained group (M =3.97, SD = 1.3) and the Peer-trained group (M = 3.89, SD = 1.1);  $t(28) = 0.184, p = 0.86$ .

**Table 6: Qualitative responses from class facilitators TARS**

<b>Group</b>	<b>What was the most helpful part of the workshop for you personally?</b>	<b>What changes would you recommend?</b>
CBT trained	<ul style="list-style-type: none"><li>• Understanding thoughts and the impact this has on your physical health</li><li>• That you can help yourself through difficult times.</li><li>• Overcoming bad thoughts</li></ul>	<ul style="list-style-type: none"><li>• No comments</li></ul>
Peer trained	<ul style="list-style-type: none"><li>• Problem solving</li><li>• Relaxation</li><li>• Understanding feelings</li><li>• Understanding thoughts</li><li>• Meditation</li></ul>	<ul style="list-style-type: none"><li>• Improve the worksheets</li><li>• More information aimed at the trainers and what they would do in the situations would be helpful</li></ul>

### Focus Group feedback from Class facilitators

A semi-structured interview schedule was used to complete two focus groups, one with class facilitators trained by the CBT practitioner (n = 3) and one with those trained by peers (n = 4) a month after completion of the final classes.

A thematic analysis was conducted to explore the views of class facilitators. Themes were coded by two authors and good inter-rater reliability was found, discussions took place over final refinement of included themes.

A comparison between the groups was not possible due to the low numbers in each group and therefore saturation was not reached which impeded the ability to draw any meaningful comparisons. Therefore, the overall themes were identified across both groups.

**Figure 2: Focus group themes – Class facilitators experience of being involved in scheme**



Themes:

**Motivation:** Class facilitators volunteered to participate in scheme to develop skills/experience for future career, gain experience, develop confidence

**Training experience:** Quality of training, lack of time/information, suggested improvements

**Teaching experience:** Engagement, class response, adapting materials, lack of understanding, preparation/admin issues

**Course content & resources:** Quality of materials, complexity & relevance of the content, suggested improvements

**Mental health in young people:** Lack of information on mental health, signposting to services, sources of support used by young people, mental health culture

**Impact of intervention:** Impact on pupils and facilitators, benefits and difficulties identified

## **Themes**

### **Motivation**

The pupils volunteered to participate in the programme for the opportunity to develop skills and experience:

*"Something to put on like my CV and stuff" (P2 – CBT-trained, page (pp) 2, line (l.) 34)*

*"cos it was teaching and that's what I want to do it kinda helped me in that way. How to like deliver like lessons as well and how to deal with like older children ... I wanted to do it because I knew we were doing something I'd never done before. So, it was kinda challenging as well" (P1 – peer-trained, pp. 2, l. 26-31)*

*"Like in uni your always gonna have to do presentations at some point so like that kinda thing so it like prepares you" (P3 – peer-trained, pp. 3, l. 20-21).*

### **Training experience**

There were several comments in relation to the quality of the training provided to the class facilitators:

*"...the training session it kinda opened our eyes a wee bit to it but still left a bit of it in the shadows" (P4 – peer-trained, pp. 3, l. 47-48)*

*"A thought we got too little, like cause we got three hours training an had to do four lessons. Like some weeks a was like I've never seen this before, I dunno what to do" (P2 – CBT-trained, pp. 3, l. 40-41)*

*"I feel like we maybe should have spent longer on the training, like we shouldn't have all done it in one day" (P3 – peer-trained, pp. 7, l. 30-31)*

*"see even maybe like a training session before every session, to teach you that session. A feel like that would maybe be more like efficient" (P3 – CBT-trained, pp. 7, l. 34-35)*

## Teaching experience

Issues regarding engagement and class response were highlighted in regard to difficulty getting the class to engage with the intervention and listen to the facilitators:

*"I think that's the only thing that's bad about teaching your own age .... they don't like that, us telling them what to do coz it's almost like you're nearly the same age as me, like why are you like authority"* (P3 – peer-trained, pp. 11, l. 17-20).

*"they didn't really listen to us, they didn't really take that much authority off of us..."*(P2 – CBT-trained, pp. 9, l. 28-29)

However, they identified that it was helpful to adapt some of the materials and that this helped to improve engagement:

*"we kinda like made the actual stuff that was written ...more casual, like we didn't make it as serious. I think they liked that ...it sounds stupid, but like their language kinda. We talked to them the way they would talk to their friends and they listen"*(P3- peer-trained, pp. 16, l. 10-14)

*"that's when they did like start to like, listen, when you made it sort of, do you know what I mean, like young, trendy"* (P2 – peer-trained, pp. 16, l. 25-26)

Several difficulties were noted in relation to the class facilitators understanding of the content, organisation and administration:

*"In my opinion, it was quite like chunky so I was like reading every line highlighting wee bits while I was doing ....it was a wee bit rushed and felt like I'm not explaining it properly and just repeating myself"* (P1 – peer-trained, pp. 7, l. 6-9)

*"...the volume of information was quite sometimes a bit cumbersome em administratively wise..."*(P4 – peer-trained, pp. 7, l. 13-14)

*"giving them the numbers at the start, then at the end, then they just become noisy .... then some lose their numbers, so obviously the admin was really really difficult"* (P1 – peer-trained, pp. 18, l. 1-3)

### **Course content & resources**

There were comments in relation to the quality of materials provided:

*"I feel like a lot of stuff was repeated, it was almost like the worksheets were trying to make sure you said stuff ...I feel like sometimes you were reading the same thing over"* (P3 – peer-trained, pp. 12, l. 30-32).

*"a kinda thought it was like a bit... below them if that makes sense... at the end like asking them to like fill in the form with how their feeling and stuff was fine but the way it was kinda did was kinda like, aw rate how your feeling on a grade of smiley faces..."* (P1 – CBT-trained, pp. 6, l. 15-18)

*"A felt we were well equipped ...there was a lot of notes an things like that so it looked like we were well equipped but reading it, was different, a felt like it was...could have been made better"* (P3 – CBT-trained, pp. 17, l. 31-33).

### **Mental health in young people**

Class facilitators highlighted the lack of mental health teaching; stating it would be helpful to have lessons in school addressing mental health and information on signposting to support services:

*" ...a feel like there should have been more for them to know 'if you have a problem, this is where you can go', like this is who you can talk to an like ...coz a know in front of a full class of thirty somebody's not gonna stick their hand up and go 'right, a have this problem' ... a think in the school there's no, there's nowhere near enough done about like mental health... it's hardly touched upon....So a feel like even if they, if there was jist something in it just to let them know like, this is where you can go..."* (P3 – CBT-trained, pp. 18, l. 35-44)

*"Maybe .... make it ... mandatory, once in each subject ... every subject has to give up a period in a month .... an you do something on mental health..." (P1 – CBT-trained, pp. 25, l. 41-44).*

### **Impact of intervention**

The group of class facilitators identified a number of benefits regarding the skills and experience they had gained:

*"I think the actual delivering it's helped ma confidence because the first week and it didn't go really well and nobody was really listening to us .....then see by session like three and four, when they were actually listening to you and you thought, they respect me an, you actually got good at like, speaking to them, d'ya know what I mean, that helped ma confidence" (P2 – peer-trained, pp. 24, l. 41-46)*

*"...over the course of the course, emm there was wee times when a would feel kinda under pressure... and I'd be like, a tell you what this is probably a good time to use that... a was thinking right I'm in that cycle, the cycle was particularly useful" (P4- peer-trained, pp. 23, l. 2-14)*

*"a thought a learned stuff but a don't know how much I'll use it" (P2 – CBT-trained, pp. 26, l. 31)*

They also identified some benefits of the intervention for the class

*"that cycle was a really good one, they all liked that as well and it was actually really helpful" (P1-peer-trained, pp. 23, l. 29-30).*

*"see for like putting that to younger peoples' actual life scenarios, helps a lot more. A think it would have definitely helped a couple of people" (P3 – peer-trained, pp. 25, l. 22-24)*

*"a think they learnt coz ... like when a was getting taught it, well like, trained, a learned that like see the way that you feel an all that it like affects all your body an like wee, like things like that, a think they did learn like quite like a few different things..." (P3 – CBT-trained, pp. 14, l. 4-7)*

There were difficulties highlighted in relation to communication with the trainers and with the wider school:

*"It wasn't really explained like, it sounds stupid but why we were actually doing it like we knew what we were to do but we were a bit like why..."* (P3 – peer-trained, pp. 5, l. 5-6)

*"the problem was, that, obviously that probably was fed to (teacher) but I don't think that was fed back to us very well, emm and that's maybe what these meetings at break were for during the week but then they obviously didn't happen..."* (P4 – peer-trained, pp. 20, l. 6-13)

*"A think we understood our role but the teachers an our classes didn't understand our roles"* (P2 – CBT-trained, pp. 6, l. 32-33)

## **Discussion**

Schools are potentially a key resource to provide interventions promoting positive mental health and wellbeing in young people to prevent future mental health issues. However, research has shown that delivery is key and in order for such interventions to be effective they must be completely and accurately implemented (Weare, 2015).

This study aimed to test the feasibility of a peer delivered wellbeing intervention for pupils within a Scottish secondary school comparing peer-trained class facilitators and CBT-trained class facilitators. The key findings are discussed below in accordance with the project aims and hypotheses.

### **Hypothesis 1: Delivery**

- **a) The satisfaction and acceptability of training will be equal in both groups**

Evaluation of the training delivered by the CBT practitioner and peer trainers found no significant differences between the groups. All class facilitators rated the training to be beneficial.

The WEMWBS scores of students was compared between the two conditions. There were no significant differences between WEMSWBS scores in the conditions at any time point, however, the mean change in score was greater for the CBT group (mean difference baseline-post = 3.3) compared to the peer trained group (mean difference baseline-post = 0.33)

This hypothesis was supported as there were no differences in experience of training from the class facilitators and WEMWBS scores for 3<sup>rd</sup> year students were equal across groups.

- **b) Adherence and fidelity to the model will be equal in both groups**

Adherence and fidelity was evaluated via observation of a subset of classes. Overall class facilitators appeared to deliver the slides and content as per the programme. However, there were differences in the ability to engage with the

class and facilitate class discussion. It is possible these differences in delivery may have impacted upon the results. It would have been beneficial for each set of class facilitators to have been observed to allow for a comparison to be made between the two training models. Therefore, the hypothesis was partially supported.

**Hypothesis 2: Class facilitators will find delivering the training helpful for their own wellbeing**

Qualitative feedback evidenced that class facilitators found the training to be useful and helpful to improve their understanding of the impact of thoughts and feelings. Benefits highlighted included building skills, improving confidence and gaining experience to support future career prospects.

The hypothesis was supported and is consistent with previous findings in the literature (Cowie et al., 2002; Houlston & Smith, 2009) which suggests that the experience of being a peer supporter leads to beneficial gains.

**Hypothesis 3: Students with lower initial wellbeing scores will show an increase in wellbeing scores with equivalent gains in both groups. Those with initial high scores will show no significant change from baseline.**

Those with lower initial wellbeing scores did not significantly improve in scores compared to those with high scores in the peer-trained group. However, within the CBT-trained group those with lower scores pre-intervention showed a significant improvement of at least 8 points or more in score post intervention compared to those with high scores. Analysis demonstrated that those with low scores were 13.7 times more likely to show an improvement in score compared to those with initial high scores. These gains also appeared to be maintained over time.

Therefore, the hypothesis is partially supported as although there was a greater improvement for those with lower initial scores than those with higher scores in both groups, there was only a significant improvement in the CBT trained group, thus hypothesis 3 cannot be fully accepted.

#### **Hypothesis 4: The rate of recommendation, assessing the benefit and harms of the intervention, will be equivalent in both groups**

Questionnaire feedback from students found that there were no significant differences in rate and recommendation of the teaching between the groups and so the hypothesis is supported.

#### **Strengths**

The study used randomisation of class facilitators to conditions and the observer was blinded to the training condition when observing classes for fidelity. The measures used were validated for use within an adolescent population. A robust qualitative analysis was completed using a recognised analysis approach and using a second rater to reduce subjectivity.

The study utilised an intervention that could be helpful for use within schools as benefits were reported for class facilitators and improvements found for those who appear to have the poorest wellbeing. Several reviews have investigated the effectiveness of school-based mental health interventions at both the universal and targeted levels. Durlak, Weissberg, Dymnicki, Taylor and Schellinger (2011) found that universal school based programmes aimed at enhancing social and emotional learning produced significant improvements in social and emotional skills, behaviour and academic performance compared to controls. The results of this study are consistent with findings from a previous review of mental health promotion and prevention in schools that found that greater effects were found for those children considered to be higher risk (Weare & Nind, 2011). Weare and Nind (2011) conclude that a balance of both universal and targeted approaches are optimal. Research has shown that stigma and prejudice can be factors reducing the likelihood of help seeking (Cowie et al., 2002) and therefore universal approaches can be useful in allowing us to reach those children who are at high risk and less likely to seek help.

## **Limitations**

Limitations of the study include the lack of a localised schools based support team to implement the intervention, only one teacher was involved in helping with preparation and planning. There was also a period of several months where the coordinating teacher was absent due to health reasons which led to some confusion and delay in collection of post intervention questionnaires. There was a drop off in completion rates post intervention (68.2%) and at 3-month follow-up (55.4%). This may have been impacted by the collection of the post intervention data taking place in December which appeared to coincide with increased pupil absence. There was also a delay in collection of the 3-month follow up data due to adverse weather conditions leading to school closure. Pupil attendance was reduced at this time which led to lower completion rates.

The initial training session for class facilitators was very short and did not include supervised practice. There was also no access to ongoing supervision due to teacher absence. Previous research and guidance on implementing interventions highlights the importance of thorough training and regular supervision (Cowie & Olafsson, 2000). Therefore, it would be essential for these elements to be considered for future implementation of the programme.

Some of the facilitators dropped out which led to one of the classes failing to receive the whole intervention. This impacted on the numbers available to be included in analysis.

Fidelity was measured by the lead researcher. Ten percent of classes were observed. It may have been useful to have observed a greater number of classes to allow for comparison of fidelity between the two training conditions. However, time constraints did not allow for this.

The low numbers of those with pre-intervention low wellbeing scores suggests that although results appear positive, this must be interpreted with caution and it would be helpful for future studies to use a larger sample size.

Equivalence testing was considered to complete analysis as the hypothesis stated that there would be equivalent results in both groups. Equivalence tests determine whether the means are similar enough to be considered equivalent. However,

equivalence tests require large sample sizes, there is a lack of easily accessible software to complete this analysis and lack of guidance on equivalence bounds (Lakens, 2017). Therefore, standard differential statistics were used to analyse data in this study.

### **Recommendations**

The results of the study highlight the need for a local support team to be in place to support the implementation of a new intervention. Feedback from class facilitators suggest the lack of awareness of the programme among the wider school population and in particular the wider teaching staff presented as a barrier to implementation. The teacher responsible for co-ordinating the programme had a period of absence which further disrupted implementation and led to some confusion for the class facilitators. Therefore, having a wider support team within the school consisting of a range of teaching staff would be essential to support the programme.

There were issues regarding the retention of class facilitators and several dropped out which led to one class failing to receive all of the sessions. It may be useful to assess motivation to participate and implement a more rigorous recruitment method as well as recruiting a greater number of facilitators to ensure the programme is delivered consistently.

Communication was also a barrier that was highlighted. It would be helpful for future interventions to plan for regular contact and meetings with class facilitators to discuss any issues and ensure they are prepared for the delivery of the upcoming session. Regular supervision and training for the class facilitators is important to support them to deliver the programme effectively.

The training was judged to be effective and beneficial by the class facilitators but issues were highlighted in regard to the duration of training and the ability to manage and engage the class and this was also evident from class observation. Therefore, it would be beneficial to provide a more in-depth training session providing class facilitators with some training in regard to teaching methods and techniques to help support engagement and manage class disruption.

## **Conclusions and implications**

This study found that a wellbeing intervention delivered by student class facilitators who were peer trained was judged equally as effective as training delivered by a CBT practitioner which suggests this could be a suitable model to implement within school settings. However, despite equal satisfaction, the classes taught by the CBT-trained facilitators, showed a significant improvement in score for those with lower initial wellbeing scores compared to the peer-trained facilitators.

The results demonstrate that a 4-week intervention can lead to a significant improvement in wellbeing for those with low initial wellbeing scores. The difference across the conditions suggests that the training of the class facilitators may have impacted on the effectiveness of the intervention. However, the small sample size of those who fell within the low initial score allows only tentative conclusions to be drawn. This is consistent with previous findings that have shown that significant improvement in wellbeing score was found in pupils with initial low wellbeing scores (DfE, 2015).

Qualitative results demonstrated that participating as a facilitator in the programme also produced beneficial effects. This is also in keeping with current government guidelines highlighting the need to develop peer support and to explore issues surrounding mental health and wellbeing.

It is expected that greater support regarding the implementation process would allow for a more substantial trial to test the effectiveness of peer delivery of the 'My Big Life' intervention on wellbeing within a secondary school environment. Overall, the approach shows promise and would benefit from a more detailed and rigorous large scale multi-school RCT.

## **Conflict of Interest**

Professor Chris Williams is the author of 'My big life' the CBT-based course used in this study. He is a shareholder and director of a company that commercialises this and other resources.

## References

- Boyle, C., Lynch, L., Lyon, A., & Williams, C. (2011). The use and feasibility of a CBT intervention. *Child and Adolescent Mental Health, 16* (3), 129-135.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology, 3* (2), 77-101.
- Clarke, A., Friede, T., Putz, R., Ashdown, J., Martin, S., Blake, A., ... & Stewart-Brown, S. (2011). Warwick-Edinburgh Mental Well-being Scale (WEMWBS): validated for teenage school students in England and Scotland. A mixed methods assessment. *BMC Public Health, 11* (1), 487.
- Cowie, H., Naylor, P., Talamelli, L., Chauhan, P., & Smith, P. K. (2002). Knowledge, use of and attitudes towards peer support: a 2-year follow-up to the Prince's Trust survey. *Journal of Adolescence, 25* (5), 453-467.
- Cowie, H., & Olafsson, R. (2000). The role of peer support in helping the victims of bullying in a school with high levels of aggression. *School psychology international, 21* (1), 79-95.
- Davis, J. R., Rawana, E. P., & Capponi, D. R. (1989). Acceptability of behavioral staff management techniques. *Behavioral Interventions, 4* (1), 23-44.
- Department for Education. (2015). *Character education in the East Devon Secondary School Partnership (EDSSP)*. Retrieved June 2018, from [http://www.fiveareas.com/wpcontent/uploads/EDSSP Character Education Project Evaluation Report D2.pdf](http://www.fiveareas.com/wpcontent/uploads/EDSSP_Character_Education_Project_Evaluation_Report_D2.pdf)
- Dickson-Gomez, J., Weeks, M., Martinez, M., & Convey, M. (2006). Times and places: Process evaluation of a peer-led HIV prevention intervention. *Substance use & misuse, 41* (5), 669-690.
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child development, 82* (1), 405-432.

- Erhard, R. (1999). Peer-led and adult-led programs—student perceptions. *Journal of Drug Education, 29* (4), 295-308.
- Houlston, C., & Smith, P. K. (2009). The impact of a peer counselling scheme to address bullying in an all-girl London secondary school: A short-term longitudinal study. *British journal of educational psychology, 79* (1), 69-86.
- Lakens, D. (2017). Equivalence tests: a practical primer for t tests, correlations, and meta-analyses. *Social Psychological and Personality Science, 8* (4), 355-362.
- Latané, B. (1996). Dynamic social impact: The creation of culture by communication. *Journal of communication, 46* (4), 13-25.
- Maheswaran, H., Weich, S., Powell, J., & Stewart-Brown, S. (2012). Evaluating the responsiveness of the Warwick Edinburgh Mental Well-Being Scale (WEMWBS): Group and individual level analysis. *Health and Quality of Life Outcomes, 10* (1), 156.
- May, C., & Finch, T. (2009). Implementing, embedding, and integrating practices: an outline of normalization process theory. *Sociology, 43* (3), 535-554.
- Medical Research Council. (2006). *Developing and Evaluating Complex Intervention: New Guidance*. Retrieved June 2018, from <https://mrc.ukri.org/documents/pdf/complex-interventions-guidance/>
- Mellanby, A. R., Rees, J. B., & Tripp, J. H. (2000). Peer-led and adult-led school health education: a critical review of available comparative research. *Health education research, 15* (5), 533-545.
- Public Health Institute for Scotland. (2003). *Needs Assessment Report on Child and Adolescent Mental Health: Consulting children, young people and parents*. Retrieved July 2018, from [www.phis.org.uk/pdf.pl?file=publications/CAMH2.pdf](http://www.phis.org.uk/pdf.pl?file=publications/CAMH2.pdf)
- Scottish Executive. (2005). *The Mental Health of Children and Young People: A Framework for Promotion, Prevention and Care*. Retrieved July 2018, from <http://www.gov.scot/Resource/Doc/77843/0018686.pdf>

Scottish Government (2009) *Well? What do you think?* Edinburgh: Scottish Government. Retrieved June 2018, from <http://www.scotland.gov.uk/Publications/2009/0915112214/0>

Scottish Government. (2012). *A guide to getting it right for every child*. Retrieved July 2018, from <http://www.gov.scot/resource/0042/00423979.pdf>

Scottish Government. (2017). *Mental Health strategy: 2017-2027*. Retrieved July 2018, from <http://www.gov.scot/Resource/0051/00516047.pdf>

Simoni, J. M., Franks, J. C., Lehavot, K., & Yard, S. S. (2011). Peer interventions to promote health: Conceptual considerations. *American Journal of Orthopsychiatry*, 81 (3), 351.

Sprengel, A. D., & Job, L. (2004). Reducing student anxiety by using clinical peer mentoring with beginning nursing students. *Nurse Educator*, 29 (6), 246-250.

Weare, K. (2015). Child and adolescent mental health in schools [Editorial]. *Child and Adolescent Mental Health*, 20 (2), 6-8.

Weare, K., & Nind, M. (2011). Mental health promotion and problem prevention in schools: what does the evidence say? *Health promotion international*, 26 (suppl\_1), i29-i69.

Williams, C. (2011). *Living life to the full*. Retrieved May 2018, from <http://www.fiveareas.com>

Williams, C., McClay, C. A., Matthews, L., McConnachie, A., Haig, C., Walker, A., and Morrison, J. (2018). Community-based group guided self-help intervention for low mood and stress: randomised controlled trial. *The British Journal of Psychiatry*, 212 (2), 88-95.

Wyman, P. A., Brown, C. H., LoMurray, M., Schmeelk-Cone, K., Petrova, M., Yu, Q., ... & Wang, W. (2010). An outcome evaluation of the Sources of Strength suicide prevention program delivered by adolescent peer leaders in high schools. *American journal of public health*, 100 (9), 1653-1661

## Chapter Three: Appendices

### Appendix 1: Journal of Adolescence Author guidelines



## JOURNAL OF ADOLESCENCE

The Journal of the Foundation for Professionals in Services to Adolescents (FPSA)

### AUTHOR INFORMATION PACK

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#### DESCRIPTION

The *Journal of Adolescence* is an international, broad based, cross-disciplinary journal that addresses issues of professional and academic importance concerning development between **puberty** and the attainment of **adult status** within society. It provides a forum for all who are concerned with the nature of **adolescence**, whether involved in teaching, research, guidance, counseling, treatment, or other services. The aim of the journal is to encourage research and foster good practice through publishing both empirical and clinical studies as well as integrative reviews and theoretical advances. The *Journal of Adolescence* is essential reading for psychiatrists, psychologists, social workers, and youth workers in practice, and for university and college faculty in the fields of psychology, sociology, education, criminal justice, and social work.

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The Journal is an international, broadly based, cross-disciplinary, peer-reviewed journal addressing issues of professional and academic importance to people interested in adolescent development. The Journal aims to enhance theory, research and clinical practice in adolescence through the publication of papers concerned with the nature of adolescence, interventions to promote successful functioning during adolescence, and the management and treatment of disorders occurring during adolescence. We welcome relevant contributions from all disciplinary areas.

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TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.

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*References*

*Citation in text*

Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either 'Unpublished results' or 'Personal communication'. Citation of a reference as 'in press' implies that the item has been accepted for publication.

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Reference to a book:

Strunk, W., Jr., & White, E. B. (2000). *The elements of style*. (4th ed.). New York: Longman, (Chapter 4).

Reference to a chapter in an edited book:

Mettam, G. R., & Adams, L. B. (2009). How to prepare an electronic version of your article. In B. S. Jones, & R. Z. Smith (Eds.), *Introduction to the electronic age* (pp. 281–304). New York: E-Publishing Inc.

Reference to a website:

Cancer Research UK. Cancer statistics reports for the UK. (2003). <http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/> Accessed 13 March 2003.

Reference to a dataset:

[dataset] Oguro, M., Imahiro, S., Saito, S., Nakashizuka, T. (2015). *Mortality data for Japanese oak wilt disease and surrounding forest compositions*. Mendeley Data, v1. <https://doi.org/10.17632/xwj98nb39r.1>.

Reference to a conference paper or poster presentation:

Engle, E.K., Cash, T.F., & Jarry, J.L. (2009, November). The Body Image Behaviours Inventory-3: Development and validation of the Body Image Compulsive Actions and Body Image Avoidance Scales. Poster session presentation at the meeting of the Association for Behavioural and Cognitive Therapies, New York, NY.

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### **Participant information sheet – Volunteer pupils**

St Andrew's and St Bride's High school are taking part in a study to trial the 'My Big Life' course as part of a research project run by researchers at the University of Glasgow.

### **Project title: Testing two models of delivering and maintaining life skills in a secondary school setting**

We would like to invite you to take part in this study. Before you decide you need to understand why the research is being done and what it would involve for you. Please take time to read the following information. Feel free to discuss with family and friends if you wish. Please contact us if there is anything that is not clear or if you would like more information (see 'who to contact' section).

### **What is the purpose of the study?**

'My Big Life' is a shortened version of Living Life to the Full (LLTTF) course which is a life skills course teaching skills to young people to cope with life stresses and which is already used at St. Andrew's and St. Bride's. LLTTF has been found to be a helpful intervention for use with young people.

We are interested in comparing two methods of delivering and maintaining life skills within a secondary school setting. This study will investigate whether volunteer pupils, trained by a Cognitive Behavioural Therapy (CBT) practitioner, are as effective as the practitioner in training a new peer mentor group in the 'My Big Life' programme. It is important to know whether there are differences as this may affect recommendations for how best to implement wellbeing interventions such as 'My Big Life'

### **How will the study take place?**

Volunteer pupils will be trained in the 'My Big Life' programme and deliver the teaching sessions to eight third year Religious Moral and Citizenship Education (RMCE) classes in St Andrew's and St Bride's High School. Four of the classes will be taught by volunteer

pupils trained by peer mentors in the year above and four will be taught by volunteer pupils trained by the practitioner.

### **How long will this take?**

The 'My Big Life' programme will be delivered over four classes (4x 50 min sessions).

### **What exactly is 'My Big Life'?**

'My Big Life' provides information on life skills. Topics covered include problem solving, tackling low confidence, boosting mood and challenging negative thinking.

### **Why have I been asked to take part?**

'My Big Life' is a life skills programme designed for people your age. Taking part in the research will help us find out whether this programme is helpful for young people in school settings. As a peer mentor you will be provided with training in the 'My Big Life' programme and deliver the classes to fellow pupils (3<sup>rd</sup> year students) during their RMCE classes. You will be involved in delivering 4 x 50 min sessions. A teacher will be present in the class during these sessions.

### **What am I consenting to?**

The 'My Big Life' classes will be starting in September/October 2017. If you consent, you will be expected to attend the training, which will either be delivered by a CBT practitioner or peer mentors in the year above. You will be asked to complete questionnaires regarding your experience of the training. You will be expected to deliver four classes (4 x 50min sessions) based on the 4 modules within the 'My Big Life' programme. You will also be asked to complete additional research questionnaires.

We are asking for your consent to take part in this study by attending the training, delivering the 4 sessions to fellow pupils during RMCE classes and completing questionnaires.

### **If you agree to participate, you will be asked to:**

- Attend training on delivering the 'My Big Life' programme. Half of the peer mentors will be trained by mentors from the year above and half will be trained by a CBT practitioner. Allocation to training will be done at random.

- Deliver 4 sessions (4 x 50 min sessions) to fellow pupils during RMCE classes. These sessions will be organised by the School considering your timetable
- Complete a sheet asking for general information, e.g. your gender, age etc.
- Complete a questionnaire that asks about overall wellbeing. You'll complete this questionnaires three times: once before you deliver classes, once you have finished delivering the final class and 3 months after the classes have ended. You will also complete a questionnaire regarding your experience of the training.
- You will be contacted in the future to take part in a one- off group discussion with the researcher regarding your experience of training and delivering the classes
- Complete the consent form (attached)

If you consent, you are saying that you are aware of what you are taking part in. All information will be made anonymous.

### **What are the next steps?**

Classes will be delivered in September/October 2017.

### **Parental consent?**

As you are over the age of 16, we do not need to ask for parental consent for you to participate in this research. We will however send an information sheet to your parents for their interest.

### **Do I have to take part?**

You do not have to take part in this study. If you consent you are still free to change your mind at any time, without giving a reason.

### **Are there any potential benefits of taking part in this study?**

By taking part in this study, you are helping us find out more about whether these classes are helpful for people your age, and why. Your feedback will also help us make any changes so it is more suitable for other young people. We need to do studies like these to see if this work is helpful, and so other young people may benefit from your taking part in this study.

### **Are there any disadvantages of taking part in this study?**

The research questionnaires will take up to 5 minutes to complete. The questionnaires ask about your emotional wellbeing and thoughts about yourself. The questionnaires are widely used in schools based research.

### **Getting extra support**

As usual in school, further support is available via your Pupil Support Teacher who is aware this study is happening. Telephone support services such as The Samaritans (116 123) or ChildLine (0800 1111) are also available if you feel distressed or if you are struggling.

### **Will my taking part in the study be kept confidential?**

The information you give is entirely confidential and will not be disclosed to anyone outside the research team without your permission.

All the information collected will be stored securely according to the Data Protection Act 1998.

### **What will happen to the results of the research study?**

We will look at all responses to questionnaires and the feedback to assess how effective the 'My Big Life' course is. We plan to present the results of the study as a scientific paper. Also, a copy of the results will be sent to your school. No individuals will be identified in the research publications which will contain only anonymous information.

### **Who is organising and funding the research?**

The study is organised by the University of Glasgow and is part of a research thesis for the Doctorate in Clinical Psychology course.

### **Who has reviewed the study?**

This study has been reviewed and approved by the College of Medical, Veterinary & Life Sciences Ethics Committee at the University of Glasgow and South Lanarkshire Council Education Resources Department.

### **Who do I contact for further information?**

If you'd like to know more about the study, please make contact with:

- Martine Pearson, Principal of Pupil Support via the school office,

- Charmaine Murray, University of Glasgow, by email:  
[c.murray.5@research.gla.ac.uk](mailto:c.murray.5@research.gla.ac.uk) or
- Professor Chris Williams, University of Glasgow, by email:  
Chris.williams@glasgow.ac.uk

Thank you for considering taking part in this research.



Centre Number:

Project Number:

Subject Identification Number for this trial:

**CONSENT FORM – VOLUNTEER PUPILS**

**Title of Project: Testing two models of delivering and maintaining life skills in a secondary school setting**

**Name of Researcher(s): Charmaine Murray, Professor Chris Williams**

**Consent Form**

Please tick box

I confirm that I have read and understand the information sheet dated 11/08/17 (version 1.1) for the above study and have had the opportunity to ask questions.

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.

I agree take part in the above study by attending the training and delivering the classes

I agree to complete the questionnaires as part of this study.

I agree to be contacted in the future to take part in a one-off group discussion about the study

**I give consent** to take part in the above study.

Name

Date

Signature

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**Name of Person taking consent**

**Date**

**Signature**

(if different from researcher)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Researcher**

**Date**

**Signature**

(1 copy for subject; 1 copy for researcher)



### **Participant information sheet**

St Andrew's and St Bride's High school are taking part in a study to trial the 'My Big Life' course as part of a research project run by researchers at the University of Glasgow.

### **Project title: Testing two models of delivering and maintaining life skills in a secondary school setting**

We would like to invite you to take part in this study. Before you decide you need to understand why the research is being done and what it would involve for you. Please take time to read the following information. Feel free to discuss with family and friends if you wish. Please contact us if there is anything that is not clear or if you would like more information (see 'who to contact' section).

### **What is the purpose of the study?**

'My Big Life' is a shortened version of Living Life to the Full (LLTTF) course which is a life skills course teaching skills to young people to cope with life stresses and which is already used at St. Andrew's and St. Bride's. LLTTF has been found to be a helpful intervention for use with young people.

We are interested in comparing two methods of delivering and maintaining life skills within a secondary school setting. This study will investigate whether volunteer pupils, trained by a Cognitive Behavioural Therapy (CBT) practitioner, are as effective as the practitioner in training a new peer mentor group in the 'My Big Life' programme. It is important to know whether there are differences as this may affect recommendations for how best to implement wellbeing interventions such as 'My Big Life'

### **How will the study take place?**

Volunteer pupils will be trained in the 'My Big Life' programme and deliver the teaching sessions to eight third year Religious Moral and Citizenship Education (RMCE) classes in St Andrew's and St Bride's High School. Four of the classes will be taught by volunteer

pupils trained by peer mentors in the year above and four will be taught by volunteer pupils trained by the practitioner.

### **How long will this take?**

The 'My Big Life' programme will be delivered over four classes (4x 50 min sessions).

### **What exactly is 'My Big Life'?**

'My Big Life' provides information on life skills. Topics covered include problem solving, tackling low confidence, boosting mood and challenging negative thinking.

### **Why have I been asked to take part?**

'My Big Life' is a life skills programme designed for people your age. Taking part in the research will help us find out whether this programme is helpful for young people in school settings.

### **What am I consenting to?**

The 'My Big Life' classes will be starting in September/October 2017. If you consent, you will be expected to attend all four classes. You will be asked to complete additional research questionnaires.

We are asking for your consent to take part in this study by attending your RMCE classes and completing questionnaires.

### **If you agree to participate, you will be asked to:**

- Attend your RMCE class as normal (we do not know yet whether you would be in classes with peer mentors trained by prior peer mentors or trained directly by a CBT practitioner; this is randomly decided by the timetable).
- Complete a sheet asking for general information, e.g. your gender, age etc.
- Complete a questionnaire that asks about overall wellbeing. You'll complete this questionnaires three times: once before the classes start, once the classes have finished and 3 months after the classes have ended. You will also complete a questionnaire regarding your experience of the classes.
- Complete the consent form (attached)

If you consent, you are saying that you are aware of what you are taking part in. All information will be made anonymous.

### **Parental consent?**

Your parents also need to agree to you taking part. Please give your parents / guardians the accompanying sheets. Parents have been asked to complete an opt out form if they do not wish you to participate in the research. Parents can contact the School or the researcher if they have any concerns.

### **Do I have to take part?**

You do not have to take part in this study. If you consent you are still free to change your mind at any time, without giving a reason. If you do not consent you will be placed in another class not related to this study and your education will not be affected.

### **Are there any potential benefits of taking part in this study?**

By taking part in this study, you are helping us find out more about whether these classes are helpful for people your age, and why. Your feedback will also help us make any changes so it is more suitable for other young people. We need to do studies like these to see if this work is helpful, and so other young people may benefit from your taking part in this study.

### **Are there any disadvantages of taking part in this study?**

The research questionnaires will take up to 5 minutes to complete. The questionnaires ask about your emotional wellbeing and thoughts about yourself. The questionnaires are widely used in schools based research.

### **Getting extra support**

As usual in school, further support is available via your Pupil Support Teacher who is aware this study is happening. Telephone support services such as The Samaritans (116 123) or ChildLine (0800 1111) are also available if you feel distressed or if you are struggling.

### **Will my taking part in the study be kept confidential?**

The information you give is entirely confidential and will not be disclosed to anyone outside the research team without your permission.

All the information collected will be stored securely according to the Data Protection Act 1998.

### **What will happen to the results of the research study?**

We will look at all responses to questionnaires and the feedback to assess how effective the 'My Big Life' course is. We plan to present the results of the study as a scientific paper. Also, a copy of the results will be sent to your school. No individuals will be identified in the research publications which will contain only anonymous information.

### **Who is organising and funding the research?**

The study is organised by the University of Glasgow and is part of a research thesis for the Doctorate in Clinical Psychology course.

### **Who has reviewed the study?**

This study has been reviewed and approved by the College of Medical, Veterinary & Life Sciences Ethics Committee at the University of Glasgow and South Lanarkshire Council Education Resources Department.

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- Martine Pearson, Principal of Pupil Support via the school office,
- Charmaine Murray, University of Glasgow, by email:  
[c.murray.5@research.gla.ac.uk](mailto:c.murray.5@research.gla.ac.uk)
- Professor Chris Williams, University of Glasgow, by email:  
[Chris.williams@glasgow.ac.uk](mailto:Chris.williams@glasgow.ac.uk)

Thank you for considering taking part in this research.



Centre Number:

Project Number:

Subject Identification Number for this trial:

## CONSENT FORM

**Title of Project: Testing two models of delivering and maintaining life skills in a secondary school setting**

**Name of Researcher(s): Charmaine Murray, Professor Chris Williams**

### Consent Form

Please tick box

I confirm that I have read and understand the information sheet dated 11/08/17 (version 1.2) for the above study and have had the opportunity to ask questions.

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.

I agree take part in the above study by attending my RMCE class

I agree to complete the questionnaires as part of this study.

**I give consent** to take part in the above study.

Name

Date

Signature

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

**Name of Person taking consent**  
(if different from researcher)

**Date**

**Signature**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Researcher**

**Date**

**Signature**

(1 copy for subject; 1 copy for researcher)



### **Parent Information Sheet**

*Dear Parent / Guardian,*

Please take the time to read the following information carefully. Contact us anytime if there is anything that is not clear or if you would like more information (see 'who to contact' section).

#### **Project title: Testing two models of delivering and maintaining life skills in a secondary school setting**

St Andrew's and St Bride's High school are taking part in a study to trial the 'My Big life' course as part of a research project run by researchers at the University of Glasgow. The classes are already routinely available for some pupils in the school, and we are interested in seeing whether the content is more widely helpful.

#### **What is the purpose of the study?**

Health and Wellbeing is a core component of the school curriculum and is delivered during Religious Moral and Citizenship Education classes. My Big Life' is a shortened version of the Living Life to the Full (LLTTF) course which is a life skills course teaching skills to young people to cope with life stresses and which is already used at St. Andrews's and St. Bride's. LLTTF has been found to be a helpful intervention for use with young people.

We are interested in comparing two methods of delivering and maintaining life skills within a secondary school setting. This study will investigate whether volunteer pupils, trained by a Cognitive Behavioural Therapy (CBT) practitioner, are as effective as the practitioner in training a new peer mentor group in the 'My Big Life' programme. It is important to know whether there are differences as this may affect recommendations for how best to implement wellbeing interventions such as 'My Big Life'

#### **How will the study take place?**

Volunteer pupils will be trained in the 'My Big Life' programme and deliver the teaching sessions to eight third year Religious Moral and Citizenship Education (RMCE) classes in St Andrew's and St Bride's High School. Four of the classes will be taught by volunteer pupils trained by peer mentors in the year above and four will be taught by volunteer pupils trained by the Cognitive Behavioural Therapy (CBT) practitioner

### **How long will this take?**

The 'My Big Life' programme will be delivered over four classes (4x 50 min sessions) during RMCE classes.

### **What will my child have to do?**

If your child takes part, your child will be expected to attend their RMCE lesson as usual.

Pupils from all eight classes who take part in the study will be asked to complete short questionnaires at the start and the end of the four sessions and 3 months after the teaching has finished.

They will be asked to:

- Attend their RMCE class as normal
- Complete a sheet asking for general information e.g. gender, age etc.
- Complete a questionnaire that asks about overall wellbeing. They will complete this questionnaire three times: once before the classes start, once the classes have finished and 3 months after the classes have ended. They will also complete a questionnaire regarding their experience of the classes.
- Complete a consent form

All information will be made anonymous. Only the impact of the course on the whole class will be summarised. No individual results will be made available.

### **What exactly is 'My Big Life'?**

'My Big Life' provides information on life skills. Topics covered include problem solving, tackling low confidence, boosting mood and challenging negative thinking.

### **What do I need to do?**

The classes will be starting in September/October 2017. All children will be asked to complete a consent form to participate in the research study (and their consent will be required for inclusion in the study). We have attached an opt out form for parents to complete if you do not wish your child to participate in the study. If you have any questions or concerns about the study, please contact the School or the researcher.

### **Does your child have to take part in the research?**

Your child does not have to take part in this study. If your child decides to participate, they are still free to change their mind at any time, without giving a reason. If they do not wish to take part, this will not affect any education they receive and they will be placed in a similar class not related to the study. If you do not wish for your child to participate please complete the opt out form attached.

### **Are there any potential benefits of taking part in this study?**

By taking part, your child is helping us find out more about whether these classes are helpful for young people, and why. The feedback will help inform how the classes are delivered in the school. We need to do studies like these to see if this work is helpful, and so other young people may benefit from your child taking part in this study.

### **Are there any disadvantages of taking part in this study?**

The research questionnaires will take up to 5 minutes to complete. The questionnaires ask about your child's emotional wellbeing and thoughts about themselves. The questionnaires are widely used in schools based research.

### **Getting extra support**

As usual in school, further support is available via your child's Pupil Support Teacher. Telephone support services such as The Samaritans (116 123) or ChildLine (0800 1111) are also available if your child is feeling distressed or struggling.

### **Will my child's taking part in the study be kept confidential?**

The information your child gives is entirely confidential and will not be disclosed to anyone outside the immediate research team without their permission.

All the information collected will be stored securely according to the Data Protection Act 1998.

### **What will happen to the results of the research study?**

We will look at all responses to questionnaires and the feedback to assess how effective the course is. We intend to present the results of the study as a scientific paper.

Additionally, a copy of the results will be sent to the school and you can access them if you wish. No individuals will be identified in the research publications which will contain only anonymous information.

### **Who is organising and funding the research?**

The study is organised by the University of Glasgow and is part of a research thesis for the Doctorate in Clinical Psychology course.

### **Who has reviewed the study?**

This study has been reviewed and approved by the College of Medical, Veterinary & Life Sciences Ethics Committee at the University of Glasgow and South Lanarkshire Council Education Resources Department.

### **Who do I contact for further information?**

If you'd like to know more about the study, please make contact with:

- Martine Pearson, Principal of Pupil Support via the school office at St Andrew's and St Bride's High School.
- Charmaine Murray, University of Glasgow, by email: [c.murray.5@research.gla.ac.uk](mailto:c.murray.5@research.gla.ac.uk)
- Professor Chris Williams, University of Glasgow, by email: [chris.williams@glasgow.ac.uk](mailto:chris.williams@glasgow.ac.uk)

Thank you for your time.



Centre Number:

Project Number:

Subject Identification Number for this trial:

## OPT OUT FORM

**Title of Project: Testing two models of delivering and maintaining life skills in a secondary school setting**

**Name of Researcher(s): Charmaine Murray, Professor Chris Williams**

*PLEASE TICK BOX*

I confirm that I have read and understand the information sheet dated 11/08/17 (version 1.2) for the above study and have had the opportunity to ask questions.

**I DO NOT** wish my child to participate in the above study.

Child's name: \_\_\_\_\_

\_\_\_\_\_  
**Parent/guardian name**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Name of Person taking consent**  
(if different from researcher)

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Researcher**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Signature**

(1 copy for subject; 1 copy for researcher)



**Trainer Fidelity Form**

**Date:**

**Time:**

**Class:**

Please circle response

1. Every slide was presented in this lesson.

*Strongly agree*   *Agree*   *Neutral*   *Disagree*   *Strongly disagree*

2. All content relating to each slide was covered.

*Strongly agree*   *Agree*   *Neutral*   *Disagree*   *Strongly disagree*

3. The lesson stayed on topic.

*Strongly agree*   *Agree*   *Neutral*   *Disagree*   *Strongly disagree*

4. Group discussion was facilitated about the materials.

*Strongly agree*   *Agree*   *Neutral*   *Disagree*   *Strongly disagree*

5. The material was presented clearly and in an engaging manner.

*Strongly agree*   *Agree*   *Neutral*   *Disagree*   *Strongly disagree*

Any additional comments about the 'My Big Life' session:

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Appendix 6 – Demographic questionnaire



University of Glasgow | College of Medical,  
Veterinary & Life Sciences

**Demographic questionnaire**

Age: \_\_\_\_\_

Sex: Male  Female

Post Code: \_\_\_\_\_

Ethnicity: Please tick box that best describes you

White (Scottish)	
White (other; please Say _____)	
Black African	
Black Caribbean	
Western European	
Eastern European	
Indian	
Pakistani	
Chinese	
Mixed race	
Other (please say)	

## Appendix 7 – WEMWBS Questionnaire

Users must register to use the WEMWBS questionnaire. You can register and access the questionnaire from the following web address:

<https://warwick.ac.uk/fac/sci/med/research/platform/wemwbs/researchers/register/>

## Appendix 8 – TARS Questionnaire

Reference Davis, J.R., Rawana, E.P. & Capponi, D.R. (1989) Training Acceptability Rating Scale (TARS). Part I from Acceptability of behavioural staff management techniques. *Behavioural Residential Treatment*, 4, 23 – 44.

Appendix 9 – MVLS Ethical approval



University of Glasgow | College of Medical,  
Veterinary & Life Sciences

23<sup>rd</sup> August 2017

Dr Dorothy McKeegan

Senior Lecturer

Dr Dorothy McKeegan  
College Ethics Officer

R303 Level 3  
Institute of Biodiversity Animal Health and Comparative Medicine  
Jarrett Building  
Glasgow G61 1QH Tel: 0141 330 5712

E-mail: [Dorothy.McKeegan@glasgow.ac.uk](mailto:Dorothy.McKeegan@glasgow.ac.uk)

Dear Professor Williams

**MVLS College Ethics Committee**

**Project Title:** Testing two models of delivering and maintaining life skills in a secondary school setting

**Project No:** 200160153

The College Ethics Committee has reviewed your application and has agreed that there is no objection on ethical grounds to the proposed study. It is happy therefore to approve the project, subject to the following conditions:

- Project end date: 30 September 2018
- The data should be held securely for a period of ten years after the completion of the research project, or for longer if specified by the research funder or sponsor, in accordance with the University's Code of Good Practice in Research: ([http://www.gla.ac.uk/media/media\\_227599\\_en.pdf](http://www.gla.ac.uk/media/media_227599_en.pdf))
- The research should be carried out only on the sites, and/or with the groups defined in the application.
- Any proposed changes in the protocol should be submitted for reassessment, except when it is necessary to change the protocol to eliminate hazard to the subjects or where the change involves only the administrative aspects of the project. The Ethics Committee should be informed of any such changes.
- You should submit a short end of study report to the Ethics Committee within 3 months of completion.

Yours sincerely

## Appendix 10 – SLC Ethical Approval



Education Resources  
Psychological Services  
Psychological Services Manager/Principal Psychologist Elizabeth N King

### Research Evaluation Form Feedback for Researcher

Research title: Testing two models of delivering and maintaining life skills in a secondary school setting

Lead researcher: Charmaine Murray

Accepted (with suggested improvements, if applicable).

List of suggested improvements:

Conditionally accepted (these modifications must be made and the research proposal amended and resubmitted).

List of required modifications:

Refused

Grounds for refusal:

Psychological Service Research and Evaluation Team  
South Lanarkshire Council

23 Beckford Street, Hamilton, ML3 0BT  
Telephone: 01698 455800 Fax: 01698 455822 Email: enquiries@slcpsych.org.uk



INVESTORS  
IN PEOPLE



Healthy  
Working  
Lives

J:\Psychological Services\Ocurrent\Office16\Management Information\Research Requests\Research request - Charmaine Murray - September 2017.doc

## Appendix 11 – Research Proposal

Testing two models of delivering and maintaining life skills in a secondary school setting

Matriculation Number: 2230373M

Date of submission: 5/6/2017

Version Number: 3

Word Count: 3540

## **Title: Testing two models of delivering and maintaining life skills in a secondary school setting**

### **Abstract**

#### **Background**

This study will investigate whether peer mentors, trained by a CBT practitioner, are as effective as the practitioner in training a new peer mentor group in the 'My Big Life' programme and, with the use of 'normalisation process theory' to consider its implementation, allow for a sustainable training model within the school. No research to date has compared whether peer mentors, trained by a CBT practitioner, are as effective as the practitioner in training a new peer mentor group. This study will compare:

- 1) CBT expert practitioner training 5<sup>th</sup>/6<sup>th</sup> formers.
- 2) Peer mentors training the next cohort of 5<sup>th</sup>/6<sup>th</sup> year pupils.

#### **Methods**

Questionnaires will evaluate various aspects of the programme including wellbeing, satisfaction and fidelity.

Thematic analysis will be used to examine data from focus groups concerning experience and confidence in training. Semi-structured interviews will be employed to explore the experiences of participants.

#### **Applications**

It is important to know whether there are differences as this may affect recommendations for how best to implement wellbeing interventions such as 'My Big Life'.

### **Introduction**

#### **Policy**

The Scottish Government is committed to improving health and wellbeing in young people. The GIRFEC (getting it right for every child) approach puts the rights and wellbeing of children and young people at the heart of the services that support them (Scottish Government, 2012). Peer support is highlighted as an area to be developed and it is suggested that schools develop the role of PSE (personal and social education) sessions to explore issues around mental health and wellbeing (Scottish Executive, 2005).

#### **Peer Training**

A number of studies have evaluated the use of peer training for health and wellbeing topics and found this to be an effective and efficient way of promoting health and wellbeing (Sprenkel & Job., 2004). Wyman et al., (2010) used peer leaders to provide a suicide prevention programme to schools. They found that the programme enhanced protective factors (help-seeking, school engagement) associated with lower risk for suicidal behaviour, school drop-out, depression and substance use problems.

There have been several studies comparing peer-led with adult-led interventions which have found peer-led were at least as, or more, effective than adults (Mellanby et al.,

2000). Erhard., (1999) evaluated peer-led and adult- led drug intervention programmes. The results showed that all input measures (e.g. content, openness, facilitators' competence) and outcome measures (satisfaction, knowledge) were perceived as more positive in the peer-led model.

Research has shown that being a peer trainer has a positive impact, with peer trainers reporting benefits through having the opportunity to develop their own knowledge and skills (Sbaffi et al, 2015).

### Implementation science

Schools are a key resource to provide interventions to promote positive mental health and wellbeing in young people to prevent future mental health issues. However, research has shown that delivery is key and in order for such interventions to be effective they must be completely and accurately implemented (Weare, 2015). Research regarding school based interventions has highlighted a number of key factors for effective implementation including well defined goals, explicit guidelines, thorough training and quality control (Weare & Nind, 2011). Studies have also shown a need for consultation to ensure fidelity to the model, easily usable intervention materials and compatibility with school goals and philosophy (Forman et al., 2009; 2011). Guidance regarding the development and evaluation of complex interventions (MRC, 2006) suggest key factors in evaluating any intervention are to ensure they are based on evidence and theory, establishing the practical effectiveness and understanding the active ingredients to allow us to develop and implement effective interventions.

It is important to consider these factors to ensure the 'My Big Life' programme is a sustainable and effective intervention. The school has adopted the course into the curriculum for all students and the head teacher is supportive of the use of the programme. There has been positive feedback about the programme and the materials provided for students from school staff. There will be ongoing discussions with staff to ensure the intervention is implemented appropriately and that adequate support is provided to staff and peer trainers.

### My Big Life

'My Big Life' is a shortened, simplified version of the Living Life to the Full (LLTTF) young person's course. The LLTTF course aims to provide access to high quality, practical and user-friendly training in life skills. It is delivered via a series of 8 CBT based life skills topics addressing areas such as negative thinking and confidence (Williams 2011). The use of this programme in schools is shown to be popular with the potential to be an affordable and effective approach to school- based mental health interventions (Boyle et al., 2011). The programme was delivered to staff within East Devon secondary schools with the aim to improve emotional health and wellbeing outcomes for learners. The results showed an overall improvement in well-being, with the biggest difference in students who had lower initial wellbeing scores (DoE., 2015).

The longer course can be difficult to timetable as it contains 8 lessons. A shortened version of the course, 'My Big Life' contains four sessions centred upon feelings, behaviour, thinking and problem solving.

The peer mentoring programme started at St Andrews and St Bride's school in 2015/16. A BABCP accredited CBT nurse practitioner delivered an initial training course to the cohort group of peer mentors in October 2016. The next cohort of peer mentors will be split into two groups and trained in June 2017. Half will be trained by the CBT practitioner and half will be trained by the previous year's peer mentors. This training will be delivered via 2 x 2hour sessions to 16 peer mentors (8 in each group). These students will then teach the lessons to pupils in third year as 4x 50 minute classes during (PSHE) sessions.

The planned MRP research will take place in the 2017/18 academic year. It will compare:

- 1) CBT expert practitioner training 5<sup>th</sup>/6<sup>th</sup> students as mentors.
- 2) Peer mentors training the next cohort of 5<sup>th</sup>/6<sup>th</sup> year peer mentors.

This study will examine the experience of teaching/training and the ability to deliver the 'My Big Life' programme skills in both groups. We will also examine training confidence, knowledge and fidelity to the model.

### **Aims and hypotheses**

#### Aims

- To test whether peer training is judged as effective as training delivered by a qualified mental health expert.
- To identify differences in knowledge and confidence gain between the two approaches.
- To test if both groups deliver the sessions with equal fidelity.

#### Hypotheses

1. Delivery
  - The satisfaction and acceptability of training will be equal in both groups
  - Adherence and fidelity to the model will be equal in both groups
2. Peer trainers will find delivering the training helpful for their own wellbeing
3. 3<sup>rd</sup> year students with lower initial wellbeing scores will show an increase in wellbeing scores with equivalent gains in both groups. Those with initial high scores will show no significant change from baseline.
4. The rate of recommendation, assessing the benefit and harms of the intervention, will be equivalent in both groups

### **Plan of Investigation**

#### Participants

Participants will include secondary school pupils from St. Andrew's and St. Bride's High School. This will include sixth year pupils who have volunteered to be peer mentors and third year pupils (13 and 14 year olds) attending PHSE classes.

#### Inclusion and Exclusion Criteria

Peer trainers will be 6<sup>th</sup> year pupils who have volunteered to be involved in the peer mentoring programme.

The training will be delivered to all 3<sup>rd</sup> year pupils. Every pupil will be automatically opted in. Information sheets will be sent to parents with full information of the study. All 3<sup>rd</sup> year pupils will attend the classes but if their parents or they decline they will not complete the extra evaluation questionnaires.

### Recruitment Procedure

Sixth year pupils will volunteer to participate in the peer mentoring programme. It is estimated there will be approximately 15-20 peer mentors. The mentors will be selected and trained in June 2017, with approximately 2 mentors to each class. The teaching sessions will be provided across all S3 PHSE classes (approximately 9 classes) each with 25-30 pupils (approximately 225 – 270 students).

Previous research suggests that refusal/ opt out rates are likely to be low.

### Measures

The Training Acceptability Rating Scale (TARS; Davis et al., 1989) will be used to assess the quality of the training and any benefits or harm the training presents. Qualitative information will also be used to assess the satisfaction and acceptability of the training in both groups.

Qualitative information will be used to assess whether peer mentors found delivering the intervention helpful for their own wellbeing. We will be able to identify whether those with initial low wellbeing scores, had improved scores post intervention. However, due to the small numbers of peer mentors, statistical analysis will not be possible.

Adherence and fidelity to the programme will be assessed using lesson plans for each session, consisting of a slide set and scripts. Each session will have a list of aims and objectives. The external observer (CM) will make a judgement as to whether these aims have been met on a scale (not at all, partially, fully) in reference to the slide set and accompanying session notes. They will note whether each slide has been covered and also provide an overall rating as to whether the session was delivered adequately or inadequately.

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) will be used to assess wellbeing of the peer trainers and 3<sup>rd</sup> year students. The WEMWBS is a validated measure for measuring wellbeing and is suitable for use in those aged 13 years to adulthood (Clarke et al., 2011).

Participants will be asked to identify themselves on the form, but will be assured this is only for the purpose of linking their two questionnaires and data will then be anonymised.

Some basic demographic information will also be collected about the participants (age, gender, ethnicity and post code).

### Design

Mixed design using quantitative and qualitative measures.

## Research Procedures

Allocation of peer mentors to nurse or peer led training will be randomised using computer-generated random numbers. Fidelity checks will be completed by the researcher observing the sessions. The School will allocate classes at random to teaching from nurse taught peer trainers or peer taught peer trainers and keep a note of this on the school database. The researcher will be blinded to the condition to reduce risk of bias. Paper and pencil tasks will be administered independently by teachers and each pupil assigned an ID number to ensure the researcher is blinded to inputting of data. This list will be held separately by the School. Only after the data analysis is complete will the researcher be unblinded to the condition.

Qualitative interviews will follow initial data analysis. However, it is likely the researcher will be unblinded at this point due to the nature of qualitative interviews. However, questions will be asked to try and reduce risk of unblinding.

The TARS questionnaire will be administered to peer trainers after the first and second session of training. The WEMWBS will be completed by the 3<sup>rd</sup> year classes and peer trainers before the first teaching session. They will complete the WEMWBS again after the final teaching session and again at 3-month follow-up. The TARS will be completed by 3<sup>rd</sup> year students after the final teaching session.

Two focus groups will be completed after the teaching has been provided to the 3<sup>rd</sup> year pupils:

- One with the peer trainers (trained by 6<sup>th</sup> years)
- One with the peer trainers (trained by CBT practitioner).

Focus group guidelines will be followed (Flick, 2014); they will each last approximately 45-50 minutes and will consist of approximately 4-8 pupils. This will involve purposive sampling of those who improved and those who have not with a mixture of males and females across all class groups to generate a variety of views and ensure a balanced response. This selection will be determined by a preliminary grading of the main questionnaire responses.

A semi-structured interview schedule will be used to structure focus group discussions and will cover the content, the materials and their delivery and support as well as investigating general attitudes, problems and suggested changes. The interviews will be audio recorded and transcribed verbatim.

The teaching provided to the 3<sup>rd</sup> year pupils will be tested for fidelity by the researcher who will sit in on a random selection of 10% of classes using a checklist highlighting key topic areas covered in the recommended trainer notes and will provide a global rating of coverage of content, and training ability.

## Data Analysis

Statistical analysis will be used for quantitative data gathered from the questionnaires. This will be largely descriptive of attendees, plus means (sd) of likert style questions of confidence for descriptive results, and comparison of means using t-tests or Wilcoxon tests. Multiple choice questions testing knowledge gains will be compared using before-after paired t tests or their non-parametric equivalent.

A semi-structured interview schedule will be used to analyse qualitative data gathered from focus groups. Either NVivo 10 for Microsoft Windows computer package designed for the analysis of qualitative data will be used, or listening to recordings and theme allocation in a more traditional manner to facilitate analysis. A thematic analysis approach as proposed by Braun and Clarke (2006) will be used to analyse and code data to identify themes.

Teaching and training sessions will take place in the classroom setting and be tested for fidelity against a checklist of slides/topics to be covered based on the trainer support scripts.

#### Justification of sample size

The estimated number of peer mentors that will participate in the peer training programme is up to 20 based on those who have volunteered to participate in the programme.

The training will be delivered to all 3<sup>rd</sup> year pupils. Previous research has shown an improvement in wellbeing scores post intervention, with a mean difference of 3 points on the WEMWBS between intervention and control groups (Kuyken et al., 2013). Evaluation of the WEMWBS found a change in score of 8 or more equated to statistical importance, however, a change of 3 or more units in an individual's WEMWBS score was greater than the measurement error and therefore could be interpreted as clinically significant (Maheswaran et al, 2012). A similar study found dropout rates to be 13.5% (Huppert & Johnson., 2010) at follow up.

Using this data, it is estimated a sample size of 186 pupils (93 in each group) will be needed to show an improvement in wellbeing scores and account for dropout rates. Therefore, eight of the classes will be asked to complete measures before and after. The 9<sup>th</sup> class will receive the training from another teacher but will not be required to complete measures.

There is a lack of specific guidance on sample size for thematic analysis. However, sampling in qualitative research usually relies on small numbers with the aim of studying in depth and detail (Miles & Huberman 1994) and aims to achieve saturation of ideas often achieved within 10-12 interviews. Carey & Asbury (2016) suggest the optimal size for focus groups with children range from 4-8 per group, with 6-10 being the optimum upper limit.

#### Settings and Equipment

Questionnaires will be administered within the school classroom. Focus groups will be conducted within the school premises during a "free" lesson. Participants will be recruited from those sixth years who have volunteered to participate in the peer training programme. All focus group interviews will be recorded on a digital recorder. They will be transcribed verbatim by the principal researcher. Participants will be assigned ID numbers to ensure anonymity. All identifiable information will be removed to preserve anonymity and the recordings will be destroyed on completion of transcription. Data will be labeled with an ID number, and a separate ID/Name allocation sheet will be password protected and stored on University servers.

## **Health and Safety Issues**

The School has health and safety measures in place. These will apply to teaching and training.

## **Ethical Issues**

Ethical approval will be sought via University ethics. Participants and parents will be provided with an Information sheet about the study. Students will be automatically opted in and attend classes but will be able to opt out if it was felt this was not appropriate. Participants will be informed of confidentiality and how this will be upheld. The permission of the head teacher, local education department and University of Glasgow ethics will be obtained.

There are few ethical implications. Previous delivery of similar sessions has not detected distress. The peer training is already part of the planned curriculum so the only change is the offer of the CBT nurse training half the peer mentors plus the addition of the evaluations.

There may be the possibility of pupils disclosing significant problems with mental health and/or threats to wellbeing. However, guidance staff will be present in each teaching session and every pupil within the school has a guidance teacher so if issues arose within the sessions they could be referred to their guidance teacher to seek further help and advice.

## **Financial Issues**

Equipment costs will amount to one digital voice recorder (to be borrowed from The University of Glasgow), printing and photocopying for questionnaires and certificates for peer trainers as well as stationery for completing questionnaires.

## **Timetable**

6<sup>th</sup> years trained by CBT practitioner Oct – 2016

CBT practitioner trains ½ of new 6<sup>th</sup> year peer trainers and ½ trained by previous 6<sup>th</sup> year peer trainers – June 2017

Measures completed for peer trainers – June 2017

6<sup>th</sup> years complete teaching to 3<sup>rd</sup> years & measures completed with 3<sup>rd</sup> years - September/October 2017

Measures completed with peer trainers - October-December 2017

Focus groups completed - November/December 2017

3 month follow up questionnaire – January 2018

## **Practical Applications**

It will test whether the peer mentoring is an effective system to pass on life skills training which would be a self - sustaining method.

It will examine whether the training leads to improved wellbeing outcomes in students.

## **References**

1. Boyle, C., Lynch, L., Lyon, A., & Williams, C. (2011). The use and feasibility of a CBT intervention. *Child and Adolescent Mental Health*, 16(3), 129-135.
2. Braun V & Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology* 2006; 3(2): 77-101.
3. Carey, M. A., & Asbury, J. E. (2016). *Focus group research*. Routledge.
4. Clarke, A., Friede, T., Putz, R., Ashdown, J., Martin, S., Blake, A., ... & Stewart-Brown, S. (2011). Warwick-Edinburgh Mental Well-being Scale (WEMWBS): validated for teenage school students in England and Scotland. A mixed methods assessment. *BMC Public Health*, 11(1), 487.
5. Davis, R.J., Rawana, EP., & Capponi, DR. (1989). Acceptability of behavioural staff management techniques. *Behavioral Residential Treatment*, 4(1): 23-44.
6. Department for Education. (2015). Character education in the East Devon Secondary School Partnership (EDSSP).[http://www.fiveareas.com/wp-content/uploads/EDSSP\\_Character\\_Education\\_Project\\_Evaluation\\_Report\\_D2.pdf](http://www.fiveareas.com/wp-content/uploads/EDSSP_Character_Education_Project_Evaluation_Report_D2.pdf)
7. Erhard, R. (1999). Peer-led and adult-led programs—student perceptions. *Journal of drug education*, 29(4), 295-308.
8. Flick U. (2014) *An Introduction to Qualitative Research (5th Ed.)* Sage Publications Ltd..
9. Forman, S. G., & Barakat, N. M. (2011). Cognitive-behavioral therapy in the schools: Bringing research to practice through effective implementation. *Psychology in the Schools*, 48(3), 283-296.
10. Forman, S. G., Olin, S. S., Hoagwood, K. E., Crowe, M., & Saka, N. (2009). Evidence-based interventions in schools: Developers' views of implementation barriers and facilitators. *School Mental Health*, 1(1), 26-36.
11. Kuyken, W., Weare, K., Ukoumunne, O. C., Vicary, R., Motton, N., Burnett, R., ... & Huppert, F. (2013). Effectiveness of the mindfulness in schools programme: non-randomised controlled feasibility study. *The British Journal of Psychiatry*, 203(2), 126-131.
12. Maheswaran, H., Weich, S., Powell, J., & Stewart-Brown, S. (2012). Evaluating the responsiveness of the Warwick Edinburgh Mental Well-Being Scale (WEMWBS): Group and individual level analysis. *Health and Quality of Life Outcomes*, 10(1), 156.
13. Mellanby, A. R., Rees, J. B., & Tripp, J. H. (2000). Peer-led and adult-led school health education: a critical review of available comparative research. *Health education research*, 15(5), 533-545.

14. Miles M, Huberman A (1994) *An Expanded Source Book: Qualitative Data Analysis*. (2nd ed.). London: Sage.
15. Medical Research Council. *Developing and Evaluating Complex Intervention: New Guidance*. <https://www.mrc.ac.uk/documents/pdf/complex-interventions-guidance/> Accessed May 2017.
16. Sbaffi, L., Johnson, F., Griffiths, J., Rowley, J., & Weist, A. (2015). NICE evidence search: Student peers' views on their involvement as trainers in peer-based information literacy training. *The Journal of Academic Librarianship*, 41(2), 201-206.
17. Scottish Executive. (2005). *The Mental Health of Children and Young People: A Framework for Promotion, Prevention and Care*. <http://www.gov.scot/Resource/Doc/77843/0018686.pdf>
18. Scottish Government. (2012). *A guide to getting it right for every child*. <http://www.gov.scot/resource/0042/00423979.pdf>
19. Sprengel, A. D., & Job, L. (2004). Reducing student anxiety by using clinical peer mentoring with beginning nursing students. *Nurse Educator*, 29(6), 246-250.
20. Weare, K & Nind, M. Mental health promotion and problem prevention in schools: what does the evidence say? *Health Promotion International* 2011;26(1):29-69.
21. Weare, K. Editorial: Child and adolescent mental health in schools. *Child and Adolescent Mental Health* 2015;20(2):6-8.
22. Williams, C. (2007). *Living life to the full*. Accessed via [http:// www.fiveareas.com](http://www.fiveareas.com).
23. Wyman, P. A., Brown, C. H., LoMurray, M., Schmeelk-Cone, K., Petrova, M., Yu, Q., ... & Wang, W. (2010). An outcome evaluation of the Sources of Strength suicide prevention program delivered by adolescent peer leaders in high schools. *American journal of public health*, 100(9), 1653-1661