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A Model for the Delivery of Evidence-Based PSHE (Personal Wellbeing) in Secondary Schools

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Abstract

Personal Social Health and Economic (PSHE) education is a non-statutory school subject designed to facilitate the delivery of a number of key competencies relevant to health, safety and wellbeing. As well as contributing to learning objectives in regards to these topics PSHE education has been ascribed with weighty expectations for outcomes well beyond the classroom relating to physical, mental, sexual and emotional health and safety. This paper reviews a programme of research aimed at providing guidance for the evidence-based provision of PSHE education, including a summary of the major impediments and facilitators of evidence-based programming, as well as a model curriculum for the delivery of evidence-based PSHE. An extensive literature review was conducted along with a series of interviews with programme developers, researchers, teachers and other school practitioners with the aim of developing a cohesive rationale for PSHE education and identifying evidence-based programmes which could be implemented to contribute to PSHE aims. The proposed model curriculum is comprised of evidence-based programmes which are PSHE-relevant and applicable or adaptable to the PSHE-education implementation context. While the provision of evidence-based PSHE presents a number of challenges and is limited by a lack of resources and evidence of effectiveness, with appropriate guidance PSHE education can be improved so that a comprehensive syllabus of evidence-based programmes is enacted in secondary schools. This will increase the likelihood that PSHE has the intended effect on adolescent mental and physical health and wellbeing.

Keywords: Health education, social-emotional learning, life-skills, prevention
JEL Classifications: I1, I18, I2

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FINAL REPORT
on
Paul Hamlyn Foundation Grant:
Improving the teaching of life skills in secondary schools

Summary

Project Aims

The project aimed to identify evidence-based programmes that are applicable to Personal, Social, Health and Economic (PSHE) education, and could be implemented in British secondary schools. The objective was to improve the effectiveness of PSHE education's impact on the mental and physical health, safety and general wellbeing of adolescents. The attached report details our findings in this regard.

Project Achievements

Firstly, a number of high-quality programmes were identified and these have been shaped into a comprehensive and coherent four-year PSHE education syllabus.

Secondly, this now provides a model for the implementation of evidence-based PSHE education in secondary schools as well as points out key resources for its delivery.

Thirdly, the final report summarises the landscape of universal prevention and life skills programmes in order to outline the main barriers and facilitators to introducing evidence-based PSHE education. It is hoped that this summary will guide practitioners to identify, select, implement and sustain programming that is effective, relevant and fits the implementation context.

Fourthly, our project findings lay the foundation for a larger body of research. As a first step in this, we are planning to trial and evaluate the model syllabus that has been developed as a result of this project. This will lead to a comprehensive, ready-to-use, contextually relevant and sustainable approach to PSHE education and could have pervasive effects not only on PSHE education, but adolescent wellbeing in this country.

The attached report details the work we have conducted towards these aims, our findings and information about future research. We would like to reiterate our appreciation to the Paul Hamlyn Foundation for allowing us to undertake such relevant, practical and impactful work.

Executive summary

This report summarises the main findings from a year-long effort to introduce a strategy for increasing the evidence-based provision of the Personal Wellbeing programme of study, a component of PSHE education in secondary schools in Britain. In particular, this project aims to maximise health- and behaviour-relevant outcomes of PSHE. The background to the project including a description of the policy landscape and other initiatives to improve PSHE delivery is discussed, along with a summary of the aims and methodology of the current project. This is followed by an outline of the major impediments and facilitators of evidence-based PSHE education, including the availability of applicable programmes, programme evaluations and implementation. There follows an overview of the limitations in this approach to improving PSHE education. Lastly, a model curriculum for evidence-based PSHE including major topic areas, structure and organization, and applicable evidence-based programmes is presented.

PSHE education is designed to equip students with a range of skills to promote health, wellbeing, safety, positive relationships and productivity (MacDonald, 2009). Though PSHE is not statutory it is endorsed by most schools with research suggesting that, on average, schools deliver an hour of PSHE education per week (Department for Children, Schools and Families [DCSF], 2009). To ensure that this limited time is used to its utmost potential it is essential that evidence-based PSHE programmes be used in classrooms. This will increase the likelihood of promoting healthy and adaptive behaviour and encouraging healthy lifestyles despite limited time and resources available for PSHE education. The current project aims to develop a model of PSHE education that guides the delivery of PSHE primarily by identifying evidence-based programmes that are applicable or adaptable to British PSHE classes. This requires identifying areas where evidence-based materials are available, examining the evidence-base in these areas and identifying programmes that can be feasibly implemented.

There are a number of impediments to the provision of evidence-based PSHE. These fall into three main categories: content, evidence and context. Content refers to the topic areas targeted by a programme and the stipulated delivery methods. Considering the breadth of PSHE, programmes in a variety of content areas are applicable with some areas more comprehensively targeted by available evidence-based programmes than others. Though there is some difficulty inherent in mapping programme aims for programmes developed outside of a PSHE focused context onto existing PSHE frameworks, for most content areas

applicable programmes are available. These vary in regards to delivery models and required classroom time. While some programmes follow a self-contained, discrete curriculum, others are cross-curricular or "whole-school" initiatives (Weare, 2000). Many are designed to be delivered by regular classroom teachers with others requiring input from external professionals. These facets of programme delivery have ramifications for the fit with PSHE education.

In regards to evidence, a primary objective is to determine what comprises an adequate evidence-base for PSHE-relevant programmes. A number of different outcome variables are used in programme evaluations and the extent to which they are applicable to PSHE aims is debatable. Further, evaluation results require substantial interpretation to determine whether they constitute adequate evidence of effectiveness. For example, most programme effects are small and usually the programme is only effective for a proportion of the outcomes included in the evaluation and possibly, only effective for certain subgroups of the sample population. Additionally, evaluations vary in quality. Adopting an evidence-based approach to PSHE requires consideration to what is acceptable evidence of effectiveness and what outcomes are relevant to PSHE aims.

Other important factors in evidence-based PSHE are context and implementation. Implementation quality depends on a number of factors (Greenberg, Domotrovich, Graczyk, & Zins, 2005). A primary concern is implementation fidelity. Delivering programmes as they were designed to be delivered (and as they were delivered while being evaluated) maximises the likelihood of effectiveness (Durlak & DuPre, 2008). However, programme fidelity must be balanced against programme flexibility. This allows for the context in which the programme is to be delivered (including population characteristics, institutional resources and limitations, and the skills and weaknesses of implementation leaders and facilitators) to shape programme delivery. Consideration of the context of implementation, in this case secondary PSHE in British schools, allows for programmes which can be feasibly delivered to be selected so that the implementation process runs as smoothly as possible and PSHE effects are maximised.

Based on all of the above considerations a model for the delivery of the PSHE personal wellbeing curriculum is proposed. There is a continuing concern that PSHE lacks a cohesive rationale (Formby et al., 2011), and it is often used as a catch-all subject for health-relevant lessons or statutory health and wellbeing content. As such, it is important to define a cohesive set of PSHE aims and outcomes to guide programme selection. This is particularly true because the set of available programmes arise from a variety of political, social and

educational contexts and placing them together without regards to a cohesive PSHE model would emphasise the fractured nature of the curriculum. For this reason an adolescent developmental delivery model was employed (Coleman, 2010). This entailed taking account of adolescent cognitive development, social context, needs and interests to guide programme selection and curriculum organisation. The model includes a four-year PSHE curriculum (deliverable in one hour per week) organised based on the five established content areas of PSHE education (MacDonald, 2009):

- Emotional Health and Wellbeing
- Diet/Nutrition and Healthy Lifestyles
- Drugs, Alcohol and Tobacco Education
- Safety Education
- Sex and Relationships Education

By proposing a model for the delivery of PSHE education as well as identifying suitable evidence-based programmes it is hoped that, in general, PSHE in British schools will become more evidence-based and, in turn, more effective. This, in addition to an overview of the main considerations involved in delivering evidence-based programming, will facilitate the provision of PSHE education of superior quality and increased effectiveness.

1. Background

Personal, Social, Health and Economic (PSHE) education has emerged as a key organizational structure for the teaching of life skills, including social and emotional skills, sex and relationships education, substances education and economic aptitude. PSHE has grown in stature with the growing recognition that schools have the responsibility as well as the opportunity to teach a broad array of skills beyond academic skills. The MacDonald review, commissioned to explore issues regarding the proposal to implement statutory PSHE (MacDonald, 2009, p. 7) states that:

> The issues that PSHE education covers are central to children and young people's wellbeing and personal development. Effective PSHE education should equip children and young people with the knowledge, understanding, attitudes and practical skills to live healthy, safe, productive and fulfilled lives.

PSHE exists in a complex policy landscape and its current form is a result of a variety of policy initiatives, ideological shifts and educational imperatives. An important precursor to PSHE as it currently stands is "Personal Social Education" which identified cross-curricular themes which paved the way for PSHE education such as health, careers education and Citizenship (MacDonald, 2009). It became a curriculum in its own right in 2000 and, in its current form, is guided by the non-statutory PSHE curriculum which was revised by the QCA in 2008, resulting in two related components: Personal Wellbeing and Economic Wellbeing. The curriculum remains non-statutory despite a recent initiative to make it a statutory subject.

However, the theme of wellbeing continues to attract attention, with PSHE education seen as a key aspect in promoting it. MacDonald (2009, p. 5) suggests that "the prominence of the subject has in fact grown in recent years, particularly with the increasing focus on the Every Child Matters outcomes and the duty on schools to promote their pupils' wellbeing". The DCSF (2009) notes that PSHE education provides "learning opportunities and experiences that deal with the real life issues children and young people face as they grow up" (p. 8). A 2007 education bill enshrined the duty of schools to promote wellbeing as defined by the Children Act 2004 as:

- physical and mental health and well-being
- protection from harm and neglect
- education, training and recreation
- making a positive contribution to society
- social and economic well-being.

What these examples suggest is that expectations for PSHE education go far beyond the PSHE classroom. PSHE education has a breadth that makes it relevant to general health and behaviour both in and out of school. This makes for an interesting comparison with other school subjects, where there is rarely an emphasis on behaviour outside of class and there is little impetus to demonstrate that classroom experiences are having effects beyond the learning that can be demonstrated within classroom assessments. For example, it would seem absurd to study the behaviour of students in the school cafeteria as they count their change to insure that their math classes are "taking". Still, with the aims and expectations attributed to PSHE it is sensible to ensure that these aims are being met.

In a number of health domains, the need for intervention to increase wellbeing and promote health in the UK is clear. For instance, in the UK approximately 10% of adolescents have a mental health problem (Green, McGinnity, & Melzer, 2005) and a 2007 report

suggested that the UK has particularly low levels of childhood wellbeing compared to other European countries (UNICEF, 2007). In regards to sexual health, there is evidence that STI diagnoses among adolescents and young people have been rising since 1998 (Health Protection Agency, 2008). A recent NHS report suggests that obesity levels have risen dramatically since 1995 (National Health Service [NHS], 2010). The picture is not uniformly discouraging. There is evidence that drug use among adolescents and young people has decreased in recent years. This may be partly attributable to recent governmental drug strategies focusing on preventing drug use and drug-related harm through education and support for young people (The Information Centre, 2007).

PSHE education is a likely candidate to contribute to improvements in adolescent health. A recent mapping exercise (Formby, et al., 2011) noted that most schools have an established framework for the delivery of PSHE education. This includes an appointed subject leader and clear PSHE education policy. Also, most schools have allocated curriculum time to the subject, on average, one hour per week. This hour is distributed amongst a number of content areas related to a number of health concerns including mental, physical and sexual health.

1.1. PSHE Content and Focus

Official guidance for the provision of PSHE education in secondary schools (Key Stages 3 and 4) comes in the form of the non-statutory PSHE curriculum which is divided into two components: Personal Wellbeing and Economic Wellbeing. The Personal Wellbeing key stage 3 and 4 frameworks are organised on the basis of five key concepts: Personal identities, Healthy lifestyles, Risk, Relationships and Diversity. Further, the curriculum stipulates a number of "key processes" which can be understood as a set of skills and knowledge which are integral to attainment. Finally, the "range and content" of effective PSHE stipulates the key domains of study and the "curriculum opportunities" section articulates the types of experience and learning opportunities which should be offered.

The curriculum is structured so as to offer considerable flexibility in regards to delivery methods and specific content. As such, it is open to substantial interpretation. This is reflected in the variable quality of PSHE education in British schools. Ofsted report (Office for Standards in Education, Children's Services and Skills [Ofsted], 2007) that, though the majority of schools have PSHE ratings of good or excellent, a substantial proportion of schools are deemed to have inadequate PSHE provisions. This variability is likely determined

by between school differences in two related characteristics: PSHE content and focus, and the effectiveness of the syllabus.

This is accentuated by the fact that the PSHE curriculum remains non-statutory, despite a recent enquiry into making PSHE a statutory subject (MacDonald, 2009). However, PSHE education remains integral in fulfilling a number of obligations schools have to contribute to student health and wellbeing. For instance, all schools are statutorily obliged to contribute to the Every Child Matters outcomes (Department for Education and Skills [DfES], 2003) being safe and healthy, enjoying and achieving, making a positive contribution and achieving economic stability and wellbeing. Other statutory requirements, such as the Children Act 2004 and statutory aims in the national curriculum regarding health, confidence and achievement point to the importance of promoting health and wellbeing in schools. Schools also have a statutory obligation to deliver careers education, and the National Science Curriculum also mandates some aspects of sex and drugs education. Additionally, the Ofsted evaluation framework includes consideration of wellbeing-related matters such as safety, emotional awareness, school ethos and health (Ofsted, 2011). In such a policy landscape, it is of little wonder that the provision of high-quality PSHE is of growing importance.

The Good Childhood Guide (Layard & Dunn, 2009) reported a series of recommendations based on research conducted by the Children's Society including a vision for comprehensive PSHE education. This has served as a guide for the current work as it provides a useful thematic organisation of the key PSHE aims. The topics identified that together form a comprehensive PSHE education curriculum are (p. 81):

- Understanding and managing your emotions
- Understanding and caring for others
- Love, sex, parenting and child development
- Healthy living: exercise, diet, alcohol, drugs, smoking
- Mental illness
- Your career and contribution to the world
- Understanding the media
- Politics and responsibilities to the planet
- Moral philosophy

While this list serves as a guide for a model curriculum, the availability of evidence-based programmes has a substantial bearing on the final form of the proposed curriculum. In short, a main goal of this work is to define a comprehensive, effective secondary personal wellbeing

curriculum which can be delivered using evidence-based practices and programmes. This is an important undertaking because despite the guidelines offered by the national curriculum, according to Ofsted evaluations, "Curriculum coverage [is] variable" (p. 14) in PSHE education (DCSF, 2009).

1.2. Evidence-based PSHE

Assessment of PSHE conducted by Ofsted suggests that in regards to attaining learning outcomes, student achievement, teaching quality and perceived helpfulness of the content, PSHE is generally of high quality (DCSF, 2009) and continuing to improve nationally (MacDonald, 2009). This bodes well for the broader potential of PSHE education to make a real difference in the health and wellbeing of students. However, there is little evidence in regards to the effectiveness of PSHE education on health and behavioural outcomes. According to a report from the Department for Children, Schools and families (recently rebranded the Department for Education), "The evidence base for PSHE education is limited in both quantity and quality" (DCSF, 2009, p. 10). The MacDonald Report noted that "there has been little primary research conducted on the delivery and impact of PSHE education as a whole" (MacDonald, 2009, p.24).

There is some evidence, however, that PSHE education has the potential to have important implications for health and health-relevant behaviours. For instance, a recent survey (Gunning et al., 2009) suggests that three out of five 11-15 year olds recalled lessons about drugs and that this had helped them to consider some of the risks involved in using drugs. Another survey (Chamberlain, George, Golden, Walker & Benton, 2010) suggested that most students in secondary schools report receiving useful health-related information about food, healthy-lifestyles and substances. Additionally, Ofsted suggests that student achievement in PSHE education is generally adequate and that PSHE provision meets standards (Ofsted, 2010). In short, there is an established framework for PSHE education that, in general, engages students with important health-relevant topics. From research conducted outside of a PSHE education context, there is evidence that educational interventions can contribute to health-relevant learning, attitudes and behaviour. Systematic reviews of school-based interventions have shown significant effects for social and emotional wellbeing (Blank et al., 2009), substance use (Cuijpers, Jonkers, Weerdt, & Jong, 2002), bullying and violence (Farringdon & Tfofi, 2009), sexual health (Shepherd et al., 2010),

media literacy (Bergsma & Carney, 2008), emotional disorders (Merry & Spence, 2007) and conduct disorders (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011).

A recent initiative designed to provide a framework for the delivery of social and emotional skills with the aim of improving students' mental health and behaviour is "Social and Emotional Aspects of Learning" (SEAL). The programme was not designed explicitly as a component of PSHE but is recognised as a source of information, ideas and enrichment for PSHE and it came to be widely adopted, implemented in 70% of secondary schools (Humphrey, Lendrum, & Wigelsworth, 2010). Unfortunately, an evaluation of the impact of SEAL in secondary schools "indicated that SEAL (as implemented by schools in our sample) failed to impact significantly upon pupils' social and emotional skills, general mental health difficulties, pro-social behaviour or behaviour problems" (p. 2). Several recommendations from the paper are relevant to the evidence-based provision of PSHE. First, the authors recommend that "a greater emphasis needs to be given to the rigorous collection and use of evidence to inform developments in policy and practice in this area" (p. 3). This highlights the importance of using evidence-based practices to teach life skills. The authors go on to suggest that "guidance should be produced to enable schools to make informed choices about the adoption of social and emotional learning programmes beyond SEAL; this guidance should have a clear focus on the evidence base to support particular programmes and the contexts in which they are effective" (p. 3).

The current project is partially based around this call for guidance and seeks to improve secondary PSHE education by targeting a number of the weaknesses highlighted herein. The specific aims of the project are discussed below, followed by a summary of the methods used to achieve these aims, and the implications of the project for the improved delivery of PSHE education.

2. Aims and Objectives

The principal aim of this project is to promote the evidence-based delivery of PSHE education in secondary schools. In particular, the project will focus on the personal wellbeing module (and not on economic wellbeing). A number of interrelated objectives contribute to this overarching aim:

1) **Develop a model for a comprehensive, evidence-based personal wellbeing secondary curriculum**

A primary objective is to determine a PSHE delivery model upon which to base programme selection. This model is designed to:

- **Provide a cohesive rationale for PSHE.** Rather than just a catch-all for health-relevant programming, to be cohesive and coherent, a delivery model should provide a set of overarching aims for PSHE and guide programme organisation.
- **Take account of existing school frameworks and available resources for PSHE.** While this project aims to have a substantial impact on the way PSHE education is delivered in schools, to do so it is important to be aware of how PSHE is currently structured so that changes can be feasibly implemented. This includes taking account of the time and resources available for PSHE, as well as key content and curriculum organisation.
- **Incorporate existing evidence-based programmes.** An evidence-based model of PSHE must take into account not only the content areas that comprehensive PSHE education should include, but the organizational framework and content of available programmes, as well as the outcomes for which evidence is available (and those for which it is not). Though the model should not be determined based solely on where evidence-based programming is available (as this would lead to an un-cohesive curriculum that was not reflective of the aims of PSHE) it is important to take account of the availability of demonstrably effective programming so that the model can be delivered using such programmes. After all, the primary aim of this project is to increase the use of evidence-based programming in PSHE education.

2) Establish which programmes could be recommended for use in PSHE education

To facilitate adherence to an evidence-based model of PSHE, a number of programmes which contribute to PSHE education were identified and assessed. The following considerations were important in determining recommendable programmes:

- **Programme content and aims.** The extent to which programmes are deemed relevant to PSHE education is determined based on the purported outcomes that the programme targets and the subject matter included to do so. The broad scope of PSHE education meant programmes in a variety of domains were relevant.

- **The evidence of effectiveness.** A great many programmes purport to have a strong evidence-base in regards to health and behavioural outcomes. This evidence can vary both in terms of quality and quantity. Arguably, no programmes have conclusive evidence of effectiveness. The strength of the evidence depends on a number of factors including the number of studies that have been conducted, the scientific rigour of the studies, the outcome variables of focus, and the results themselves.
- **Feasibility of implementation in a PSHE context.** Beyond identifying programmes with appropriate aims and content and adequate supporting evidence, a number of other characteristics determine the feasibility of the programme in the context of British schools. This refers to the fact that schools often have limited resources in regards to time, staff and finances (Formby, et al., 2011). This means that some programmes might be too taxing to be viable. Furthermore, programmes are developed in any number of cultures and contexts and some may not be suitably transferred into British schools (Coleman, 2009). Finally, some programmes may include teaching techniques or content that is not feasible or appropriate in British schools.

3) Review the impediments and facilitators of evidence-based PSHE education

The process of reviewing the literature with the aim of identifying applicable programmes comprises the same challenges and pitfalls that many teachers, local authorities or school administrators face when attempting to identify evidence-based programmes for their own purposes. In the aim of increasing and improving the provision of evidence-based PSHE education, it is important to identify the impediments and facilitators to the application of evidence-based programming. These fall in to three main categories:

- **Evidence.** An inherent difficulty in the promotion of evidence-based education is that no clear guidelines for what constitutes suitable evidence for effectiveness is available. Further, it requires that evidence for individual programmes be critically appraised, evaluated and balanced against the evidence for comparable programmes. Identifying suitable evidence of effectiveness requires consideration of the research design, the outcome measures, the analytical methods, the size of effects and the cohesiveness of

the evidence-base. This makes assessing the evidence-base for any PSHE-related programme challenging.

- **Content.** Programmes are available with a range of aims in different content areas. These vary in terms of the time and financial commitments required, the classroom methods which are employed, the amount of training required and the target audience for the programme. Considering all the variables which require consideration, identifying appropriate evidence-based programming which can be feasibly implemented is additionally challenging.
- **Context.** Equally important is the fit between the programme and the context in which it will be implemented, and how it is implemented. Therefore, issues such as the cultural context, the resources available and the distinctive needs or objectives of the target population are all relevant in insuring successful implementation. A recurrent controversy in the field relates to the trade-off between programme fidelity and sensitivity to context (Greenberg, et al., 2005). For instance, different populations of students might have different needs whereby slight changes in delivery would increase effectiveness. Additionally, the skills and weaknesses of programme facilitators might require changes to the programme to maximise success. Conversely, changes to the programme compromise the fidelity of the programme. If programme fidelity is unduly compromised it makes the applicability of the evidence-base questionable. Therefore, it is important that, prior to implementation, the fit between programmes and context is considered. Other factors which influence the likelihood of successful implementation include institutional support, sufficient planning and training and adequate time invested in the programme (Durlak & DuPre, 2008).

By reviewing the challenges arising from these three issues, a clearer vision of the pathway to successful evidence-based PSHE education emerges. In the following section, each of these issues is discussed in some depth.

4) Prepare for future research

Using the information garnered from this project, plans for future work stemming from this original project were developed. Since this project led to a fuller understanding of PSHE education and its aims, implementation and evaluation issues, as well as a portfolio of evidence-based programmes which are applicable to PSHE

education, the natural follow-up is to evaluate a package of programmes which together, comprise a complete PSHE education syllabus. This requires selecting programmes for implementation, timetabling them into a multi-year curriculum and identifying training and implementation costs and sources of training. (A research proposal for this follow-on project is available in Appendix 3. A description of the model curriculum and implementation model is in Appendix 4.)

Project methodology

In regards to developing a cohesive model syllabus for PSHE including the relevant programmes encompassed therein, several steps were taken. Initially, it was important to interpret official PSHE guidance, determine the PSHE-related needs and requirements of schools and examine existing PSHE-frameworks to establish a guiding model and rationale. This model was used to guide the selection of relevant programmes through a comprehensive literature search. In fact, there is not a ready-made literature related to programmes appropriate for PSHE provision. Instead, a number of discrete but related fields are of relevance. These include mental health, prevention research, social and emotional learning, sex education, character education, alcohol and drugs education, violence prevention and school ethos. These fields differ in breadth of content, size and theoretical background.

Within these fields, evidence-based programmes were identified. This was a simpler task in some areas relative to others. In regards to life skills training in schools, popular classroom content is often determined reactively. That is, programmes are developed and implemented in response to perceived social dangers or dysfunction. In many areas, there is a long history of programmes in response to a pervasive concern about the issues involved. An obvious example is substance use. Many programmes developed as early as the 1980s to prevent substance use are still commonly used. Further, new programmes are constantly in development. This makes for an extensive catalogue of evidence-based programmes. In other areas, this is hardly the case. For example, though media literacy is increasingly seen as an essential skill associated with a number of social disorders such as substance use (Kupersmidt, Scull, & Benson, in press), eating disorders (Wilksch & Wade, 2009) and sexual health (Pinkleton & Austin, 2008), relatively few programmes have been developed that aim to develop media literacy skills. This is at least partially due to the amount of time required to develop and evaluate programmes making for a substantial lag between the identification of pertinent areas to be targeted in life skills education and the availability of

evidence-based programmes. In short, there is significant disparity between content areas in terms of available programmes.

In order to limit the often overwhelming number of available programmes to a shortlist of programmes that can be recommended for use within the context of PSHE education, factors which guided programme selection were identified. These necessarily varied depending on the programmes available. While in some cases, such as substance use, the large number of available programmes allowed for increasingly rigorous criteria whereas in others, these had to be relaxed because the dearth of available programmes impeded overly demanding criteria. Beyond reflecting the availability and quality of evidence-based programmes, the selection criteria also needed to reflect the realities of the context in which these programmes were to be used. This meant the programmes were required to contribute to the aims of PSHE in general as well as be practically deliverable.

Information was culled from two main sources. Firstly, an extensive literature review was conducted with the aim of identifying evidence-based programmes relevant to PSHE education in secondary schools. This review resulted in a number of reports, articles, systematic reviews, meta-analyses and programme reviews. In addition to reviewing the literature, interviews were sought out with programme developers, researchers, practitioners and others involved in programme development, evaluation and implementation and PSHE education. This served several aims. First, discussions with experts led to a fuller understanding of the background of the field as well as a clearer view of how to maximise the success of the project and avoid common pitfalls of such work. Additionally, discussing programmes and evaluations in more depth made the task of determining their relevance to PSHE education more straightforward.

This was accomplished by visiting programme developers and researchers in the UK as well as in Australia and the United States. These visits constituted a unique opportunity to get international opinions regarding how best to implement health and social-emotional education. Researchers in Australia and the US are at the forefront of research in this regard and the vast majority of programmes relevant to PSHE education have been developed and evaluated in this country. The expertises of these researchers was sought with the following key aims in mind:

1. Highlight programmes which have been fully evaluated by experts in Australia and the USA with particular focus on those that might be appropriate for use in the UK.
2. Get up-to-date information about programme evaluations, programme development and other advances.

3. Learn about programmes that deserve consideration that have not yet been identified.
4. Discuss the practicalities involved in making Australian and American programmes available to UK schools.
5. Refine considerations of what effective programmes should comprise.
6. Seek help to identify components of successful programmes.
7. Identify obstacles and barriers to adequate evaluation of programmes.
8. Try to learn some of the important lessons from those who have carried out systematic reviews on programmes.
9. Get some tips about how to evaluate programmes, and what to look for in the data above and beyond what is presented in published articles.
10. Get pointers to other scientists who might help with these goals.

(For full reports of the visits to the USA and Australia, see Appendices 5 and 6)

Lastly, but equally important, to make sure the project is as beneficial as possible to the provision of higher quality PSHE, it was important to meet with those directly involved in PSHE education. This involved researchers, teachers, administrators and curriculum advisors. This helped to clarify the needs and practical concerns of those whom the project is designed to serve and refine the selection criteria.

3. Impediments and Facilitators to Evidence-Based PSHE

This section deals with the difficulties involved in ensuring that programmes used in PSHE classes are evidence-based, target relevant PSHE aims and are context-relevant. Each of these elements (evidence, content and context) are discussed in turn.

3.1. Evidence

Unfortunately, the recent emphasis on evidence-based programming has not resulted in its widespread use. This may be partly because of confusion over what constitutes appropriate evaluation. Further, there are a limited number of programmes that have been evaluated and still fewer that have demonstrable effectiveness. Coleman (2009) states that, "it is clear that there is a scarcity of good quality research evaluating the effectiveness of programmes promoting well-being in the school setting" (p. 288) and goes on suggest that this is particularly true in the UK.

Herein, evidence-based programmes are considered those which have been adequately evaluated, are demonstrably effective and are delivered with fidelity. However, this straightforward definition belies a number of very complicated issues and several concepts require further unpacking. Often, the term evidence-based is used to denote programmes which may not have been evaluated but the programmes were developed with consideration to relevant theories of effectiveness or established empirical findings. Though making use of the prevalent research base is crucial for programme development, this does not in and of itself assure effective PSHE programmes. As such, their position as evidence-based is rather tenuous. A more appropriate term for such programmes might be evidence-informed.

Evaluation

If the term evidence-based is to be reserved for evaluated programmes, what constitutes adequate evaluation? Programme evaluations take a number of forms and differ in numerous ways. These different designs confer a variety of advantages and disadvantages, though a comprehensive discussion of these issues is well beyond the scope of this report. Inevitably, programme evaluations can differ substantially in quality based on the resources of the researchers including time, access to schools, knowledge of evaluations design and analysis techniques and funding.

A significant delineator of programme evaluations is the presence of a comparator or control condition. This entails specifying a group of participants who do not receive the intervention in question and who can later be compared to the experimental group. This is of fundamental importance to reliably assess a programme because it allows for any differences between groups to be directly attributable to programme effects. In the selection of recommended programmes, wherever possible, evidence comprising a comparator condition was prioritized.

Even in cases where a comparator condition is used, study design can differ in regards to how the comparator group is defined. Randomized controlled trials are often considered the gold standard both in medical and social research, though this is not uncontested (European Evaluation Society, 2007). They involve defining a target population for an intervention and then randomly assigning participants (or groups of participants) to an intervention or control condition. Though this form of controlled trial is preferable because it minimizes the possibility of bias regarding the differential effects of the intervention and control conditions, often the feasibility of conducting randomized trials makes other forms of experimental design applicable (Reeves, Deeks, Higgins, & Wells, 2008). The Cochrane Foundation

identifies other forms of group allocation such as quasi-randomized, non-randomized and controlled before and after studies in which the entire experimental sample is compared to a convenience sample. These designs incorporate a control condition, but the assignation of the control group is determined non-randomly. For example, schools interested in applying a programme might be compared to other schools in the local authority that are considered demographically comparable. Designs which use non-random assignation should be interpreted with caution due to the possibility of biased reporting of programme effects (Reeves, Deeks, Higgins, & Wells, 2008).

Beyond the type of experimental design chosen, a number of factors contribute to evaluation quality including adequate sample size, analytical techniques, the baseline comparability of the samples and the adequacy of follow-up times. These factors, as well as a number of others, play a role in determining the extent to which evidence is credible. Compromised evaluation quality is often due to shortages of resources, such as money and expertise, methodological compromises due to real-world complexities, or evaluation bias. The latter refers to the fact that most evaluations are conducted by programme developers or others associated with the programme. Though intentional misconduct is considered rare in some prevention areas, biases might influence major methodological and reporting decisions (Eisner, 2009).

Despite this backdrop, there are few established criteria for determining the quality of programme evaluations. In fact, it has been argued that this may not be feasible in programme evaluation research because of the level of complexity involved. For example, randomization may not always be ethical, or mirroring the real-world conditions in which programmes are typically used is unfeasible. For such reasons, flexibility is essential when developing programme evaluations. The European Evaluation Society concludes that, "[impact evaluation and assessment are] complex…and consequently require the use of a variety of different methods that can take into account rather than dismiss this inherent complexity" (2007, p. 42). It is important to note that evaluation quality varies and that this variation has important implications for the credibility of evidence of effectiveness. However, there are no easy answers in regards to determining the credibility of programme evaluations.

Outcomes

Crucial to the use of evidence-based programming is consideration of the outcomes used in the evaluation and how they match with PSHE aims. Typically, the outcome variables used

in programme evaluations are designed to reflect the areas that the programme targets. However, often these measures are not directly representative of the primary programme aims and instead focus on proxies or secondary variables that are theorized to contribute to primary outcome levels. Outcomes can be grouped into four main categories: knowledge, attitudes, behaviours and health measures (National Institute for Health and Clinical Excellence [NICE], 2009). Knowledge measures assess the extent to which the information that the programme purports to deliver has been acquired and retained. Knowledge measures can also refer to the acquisition of skills that are seen as important in achieving the programme aims. Attitude measures can include the perceived acceptability and positive and negative outcomes of behaviours, the achievability of healthy outcomes or subjective impressions of certain people or groups. These measures are important because many programmes purport to achieve their aims through changing attitudes which subsequently changes behaviour or health outcomes. Behavioural measures assess the extent to which behaviour (either past or prospective) has changed in response to the programme. Usually such measures depend on self-reports, though other forms of behavioural measures are used such as teacher-reports of student behaviour, number of school disciplinary actions or classroom observation. Lastly, programme evaluations often consider the extent to which emotional, psychological and physical health have been influenced by participation in the programme. A number of standard measures such as the Positive and Negative Affect Schedule (Watson, 1988) the Child Depression Inventory (Kovacs, 1992) and the Spence Children's Anxiety Scale (Spence, 1998) have been used to that end, though often new health measures are created for use in a programme evaluation. Health outcomes can also be assessed by tracking the incidence of disease or adverse health outcomes such as unplanned pregnancies, depression diagnoses or suicide.

While outcomes can be classified by content, they can also be categorised based on the presumed pathways through which a programme is effective. Outcomes which come earliest in these pathways are known as proximal effects, with those coming later referred to as distal effects (Brenner, Curbow, & Legro, 1995). For example, programmes designed to improve sexual health behaviours would do well to measure past or prospective condom use, sexual risk-taking and other sexual-health related behaviours (distal effects), but also attitudes relating to sexual-health issues, such as the perception of condoms as easy to acquire and use, and knowledge and skills (proximal effects). Usually, knowledge and attitude measures are considered proximal effects and behaviour and health outcomes are considered distal effects.

The distinction between proximal and distal effects is an important one to make when interpreting programme evaluations. This is for two main reasons. First, distal outcomes tend to align most closely with programme aims. Take, for instance, alcohol prevention curriculum. By and large, these are aimed at reducing adolescent drinking, the risks associated with adolescent drinking and the health outcomes related to it. While changes in knowledge and attitude may be considered valuable irrespective of their impact on behaviour and health, they are principally of interest due to the theorized impact that they have on distal outcomes. As such, significant programme effects for proximal outcomes may be of little practical benefit in and of themselves. For this reason, knowledge and attitude measures are often assessed and interpreted as mediators or secondary outcomes, with behaviour and health as primary outcomes. A second reason the distinction is important is that, by definition, distal outcomes are more difficult to impact than proximal outcomes. If, as mentioned, proximal outcomes partially mediate programme impacts on distal outcomes than it follows that effects for proximal effects are likely to be larger (Brenner, et al., 1995). For instance, a recent meta-analysis found that average effect sizes for skills measures were over double those for proximal measures such as social behaviour, conduct problems and emotional distress (Durlak, et al., 2011).

The current project is designed to increase the effect that PSHE education has on health- and well-being-related behaviour and ultimately, overall physical and mental health. For this reason, distal outcomes are emphasised over proximal outcomes. The best evidence that a programme has an effect on behaviour and health is an evaluation focusing on these outcomes. This is not to detract from the importance of other outcome categories, particularly those related to student learning and knowledge. This hints at an important distinction between assessment and evaluation. Whereas evaluation focuses on the result of programmes, assessment is concerned primarily with process. PSHE assessment is used to determine the extent to which learning goals are being met, information is being delivered and retained appropriately, students and staff are satisfied with PSHE content, and the ways in which PSHE can be improved. Coleman (2009) states that "'softer', process evaluations are more likely to be used in the UK" (p. 287) suggesting that programme assessment is more pervasive in this country.

Demonstrable effectiveness

Of course, adequate evaluation using relevant outcome variables do not in themselves mean the programme is effective. Demonstrating programme effectiveness requires pinpointing

significant improvements in the outcome measures that are attributable to the programme in question. Unfortunately, programmes do not always work as well as intended. This has been the case with a number of nationally sponsored prevention and social and emotional programmes. Examples include the Norwegian programme "Youth and Alcohol" (Pape, 2009), the Australian "BeyondBlue" curriculum (Sawyer et al., 2010), as well as the recently evaluated British Social and Emotional Aspects of Learning (Humphrey, et al., 2010). SEAL was developed as a means for fostering social and emotional skills in British schools (Weare & Gray, 2003) and has proliferated to the extent that it is currently implemented in 70% of secondary schools as part of or in support of PSHE programming. As such, it may be the most prominent source of social and emotional learning in British schools.

While the programme resulted in increased attention to social and emotional learning in schools, a recent large-scale evaluation in secondary schools suggests that it is not effective in achieving its original aims. The analysis "indicated that SEAL (as implemented by schools in our sample) failed to impact significantly upon pupils' social and emotional skills, general mental health difficulties, pro-social behaviour or behaviour problems" (Humphrey, et al., 2010, p. 2), though this may be due to variations in implementation quality. In short, the widespread implementation of SEAL prior to evaluation has resulted in the prevalence of an ineffective social and emotional education initiative. It is unclear why, despite consideration of the research base, governmental endorsement and considerable effort on the part of local authorities, schools, teachers and researchers, the programme was ineffective, but this does illustrate the importance of selecting programmes that have robust evidence of effectiveness before wide-scale adoption in schools.

Even in cases where significant programme effects are identified, determining whether they are practically relevant or applicable is a difficult task. That is, statistically significant programme effects do not necessarily represent meaningful real-world effects. When significant programme effects are detected, these effects are generally quite small. For example, a meta-analysis of depression prevention programmes found small average effect sizes (Stice, Shaw, Bohon, Marti, & Rohde, 2009). Comparable effects were found for bullying prevention programmes (Ferguson, San Miguel, Kilburn Jr., & Sanchez, 2007). Noting these generally small effect sizes is important both because it provides an indication of realistic expectations and also because it reaffirms the importance of appropriate, sensitive outcome measures. Also, most programme evaluations contain a number of outcome variables, some of which are significantly impacted by programme participation, some of which are not. A meta-analysis of mental health promotion programmes (Wells, Barlow, &

Stewart-Brown, 2003) found that over 31% of studies had significant effects for between 30% and 70% of the outcomes included in the study. A further 44% of studies had significant results for less than 30% of outcome measures. Therefore, it is worth considering the outcomes that are of particular importance or relevance in the context in which it might be applied in future.

Related to the issue of mixed findings across numerous outcome variables is the fact that often programme effects are only detectable for certain sub-groups of the target population. For example, it is common for programme effects to reach significance only for at-risk subsets of the total population, or those with high pre-programme measures for the outcome in question. In fact, it is well known that targeted interventions are likely to have stronger effects (Horowitz & Garber, 2006) partly because in universal trials, control groups do not have high enough scores for significant differences compared to intervention groups to be detected without a very high number of participants. Different effects for different age groups, gender and ethnic background have also been noted in the literature. This means that, in the interests of instigating evidence-based programmes appropriately, the socio-demographic makeup of the population in question requires consideration.

This discussion exemplifies a difficult first step in adopting an evidence-based approach to PSHE. The question of what constitutes appropriate evidence is not straightforward. For any real-world outcome that is of relevance to PSHE there are any number of corresponding outcomes which vary in regards to how directly these target the fundamental programme aims. Further, determining whether the results of a programme evaluation, including the size of effects, outcomes with significant effects and sub-sections of the population for whom the programme was effective, constitute appropriate evidence of effectiveness is a difficult task. In sum, for PSHE to be truly evidence-based requires careful consideration of the nature and value of the evidence itself.

3.2. Content

Using an evidence-based approach to PSHE of course requires careful consideration of available evidence. However, this evidence is of little relevance if the outcomes are not of direct relevance to PSHE aims. Therefore, consideration of the wide variety of programme aims, the model for effecting change in regards to these aims, and the methods and materials used is essential. These facets are cumulatively referred to as programme content.

The most pressing issue is programme aim. PSHE, as discussed previously, can be interpreted broadly, making it crucial to refine the desired outcomes of programme implementation. Programmes in the same broad domain can often have quite different aims. For instance, programmes dealing with alcohol consumption behaviours often adopt a zero-tolerance approach. This approach is designed to prevent adolescent drinking by dissuading young people from starting to drink or convincing them to stop. An alternative approach to alcohol-based education is a harm minimisation model which begins from the standpoint that many adolescents are involved in drinking behaviour and that preventing it is implausible or relatively unconstructive (McBride, Farringdon, Midford, Meuleners, & Phillips, 2004). Instead, such programmes attempt to preclude the risks and damaging effects associated with drinking behaviour. Programme aims usually align with the outcome variables chosen in effective trials of the programme. This is only sensible because the primary objective of programme evaluations is to assess the effectiveness of the programme in meeting its purported aims.

If programmes in similar domains can often have different aims, it is also the case that programmes with similar aims can have vastly different classroom content. The teaching methods employed are related to programme aims through the hypothesised model of the pathways of its effects. To use another example related to alcohol education, programmes designed to prevent alcohol initiation or reduce alcohol consumption might choose to do so in different ways. Early prevention attempts focused on education in regards to the harmful effects of alcohol and social norms regarding its consumption (Ennett, Tobler, Ringwalt, & Flewelling, 1994). However, with the realisation that alcohol initiation was often related to social pressure, educational strategies shifted to target skills for overcoming social pressure and avoiding situations in which the temptation to drink might arise (Eisen, Zellman, & Murray, 2003). Thus, similar behaviour can be targeted using very different programme content. In the context of secondary education, it is important to consider not only programme aims but also content, since it is principally the latter which determines how class time is used.

In regards to PSHE education, several stumbling blocks to evidence-based programming arise with consideration to programme content. Most apparent is the difficulty in identifying programmes which cover appropriate content areas. There are some content areas which have been more thoroughly targeted than others. Therefore, while in some areas there is an abundance of choice between programmes, in others there will be far fewer options. To be commercially viable, programmes often focus broadly on targeted issues. Needless to say,

there can be little regard for local or culture-specific concerns if these programmes are to be widely implemented. As such, finding programmes tailored to the needs of schools is difficult.

Furthermore, even in cases where programme aims mirror those of schools, often the way these outcomes are targeted are incongruent with school policy or ideology. Sex education provides a useful example because of ongoing controversy surrounding the most effective and appropriate ways to teach sex education. While all programmes aim to reduce instances of STIs and unplanned pregnancies, some go further by claiming that the most suitable means of attaining this outcome is by encouraging abstinence. So called "abstinence-only" programmes are relatively popular in the US, but there is little appetite for them in the UK, with little popular support for this form of sex education in this country (Sex Education Forum, 2004). As such, even programmes which broadly target relevant topics may not be suitable based on their overarching ideology and methodology.

Additionally, how a programme was designed to be delivered warrants consideration because some delivery formats may be unfeasible, ineffective or difficult to deliver with fidelity in PSHE classes. First, a distinction can be made between programmes which are entirely curricular and those which have a whole-school component. Curriculum-based programmes are designed as discrete lesson plans which can be delivered in a set number of classroom hours. Whole-school approaches are designed to extend beyond a time-limited curriculum to influence school-level factors. This approach can include training for all school staff including teachers, administrators and other support staff, changes of school policy, increased student participation in school-based tasks and decision-making, involvement of parents, increased student-teacher interaction and changes to school organisation (Bonell, Fletcher, & McCambridge, 2007). The effectiveness of whole-school approaches are well supported, but they require increased investment from staff across the school and may be unfeasible in cases where schools do not have the resources available to make the changes necessary.

Even in the context of classroom curriculum, delivery methods can vary substantially. Many programmes are designed to be delivered by specialists (Shochet et al., 2001). Often, programmes are evaluated using specialists such as psychologists, programme developers or researchers, but the programme is available commercially without input from specialists. This raises questions in regards to programme fidelity. Therefore, in cases where programmes are designed to be delivered by people other than usual classroom teachers, or when the programme was evaluated under such conditions, schools are in a position of

having to recruit specialists which may be unfeasible or prohibitively costly, or deliver the programme using a different delivery method which compromises programme fidelity.

Another relevant aspect of programme delivery is programme length. Surprisingly, meta-analyses of the effectiveness of school-based programmes to prevent depression (Horowitz & Garber, 2006), substance abuse (Gottfredson, Jones, & Gore, 2002) violence and aggression (Hahn et al., 2007) and sexual risk behaviour (Kirby, Laris, & Rolleri, 2007) suggest that there is little correlation between the length of these programmes and their effectiveness. This suggests that there is little reason to disregard programmes that are relatively short in duration. However, these meta-analyses, and the programmes that comprise them are focused on discrete and specific outcomes. PSHE education has a broad and comprehensive set of goals, meaning that appropriate time must be dedicated to it to ensure these goals are met. Therefore, an appropriate fit between available class time and the many subsets of complete PSHE education is necessary to ensure that each component of PSHE is given sufficient time.

3.3. Context and Implementation

Choosing to use evidence-based programmes in PSHE classes and identifying appropriate programmes do not in themselves insure that PSHE is delivered in an evidence-based way. The context in which the programme is delivered has important implications for programme effectiveness and suitability. How programmes interact with the context in which they are delivered is dependent largely on the implementation process. Programme implementation refers to the steps required to plan, deliver and sustain PSHE programmes. Many factors can help or hinder the implementation process and it can vary in quality. Implementation can have serious implications for the effectiveness of life skills and prevention programmes. A systematic review of the issue concluded that "data from nearly 500 studies evaluated in five meta-analyses indicates that the magnitude of mean effect sizes are at least two to three times higher when programs are carefully implemented and free from serious implementation problems than when these circumstances are not present" (Durlak & DuPre, 2008, p. 340). A more recent meta-analysis found similar results with a lack of reported implementation problems predicting higher effect sizes in all outcome domains (Durlak, et al., 2011). This demonstrates that effective implementation is required to maximise programme effects. Further, implementation problems can detract from the demonstrated effectiveness of

programmes and as such, evidence-based programmes that are delivered poorly or substantially differently than intended cannot be considered evidence-based practices.

Programme Availability

A primary consideration in regards to implementation is the programme's availability. Clearly, to be of any use, a programme must be available to be implemented in schools. This perhaps seems too straightforward to warrant discussion but in fact, in some ways, this can be a complex issue. The majority of programmes which are made available to implement in schools are done so on a commercial basis. This makes them widely available, for a fee. In other cases, programme development has been sponsored by universities, government agencies, charities or other interested parties. These programmes can often be available for free or for a fee set to cover administrative costs. Finally, some programmes are sponsored by a local authority or an administrative area (such as a city, district, county of country) in which the programme is provided for all interested schools. Outside of the area of the inception of the programme, the programme can often be used with permission (or, again, a small charge).

However, many identifiable programmes are not widely available. For instance, a number of programmes have been designed for specific schools, areas or populations without any intention of (or funding for) wider dissemination. Such programmes (usually identified in published articles or meta-analyses) are not widely available and though they may continue in some form in the original implementation context, rarely become widespread. In cases where programmes are made more widely available, they do not always remain so. A number of evidence-based programmes with demonstrable efficacy are no longer widely available because they have not been adequately sustained or cease to remain commercially feasible.

Implementation

Assuming that a programme is available for implementation, there are a number of factors which effect implementation quality. A systematic analysis focusing on the facilitators and barriers to effective programme implementation identified five interrelated levels which affect the implementation process (Durlak & DuPre, 2008). It is useful to discuss each of these in turn with regard to their relevance to PSHE education. The broadest level is community which represents the wider context in which implementation occurs. This can include local politics or existing school structure and protocols. For instance, governmental

initiatives such as Every Child Matters, Ofsted wellbeing indicators and the endorsement and prevalence of SEAL would all be expected to affect the implementation context. Statutory obligations and pressure from above may have a positive impact by encouraging PSHE uptake, but could also reduce teacher commitment if PSHE implementation is motivated externally. In Britain, there has been an ongoing debate about the place of life skills training in schools which has been reflected politically. A prominent example includes the recent push to make PSHE a statutory subject (MacDonald, 2009). This failed largely because of conflicting views on the extent to which schools should have flexibility in regards to the delivery of PSHE-relevant subjects, particularly sex education, substances education and social and emotional skills. Needless to say, the highly politicised nature of the issue has repercussions for the PSHE programming delivered in schools.

The community level also refers to funding considerations. These are important due to the limited resources of most schools and local authorities, combined with the often high prices of evidence-based programmes. The two most palpable costs are for materials and training. Material costs can take a variety of forms. In some cases, materials are freely available though usually, some form of payment is required. This can take the form of a one-time payment for materials which can then be duplicated freely, a per-student fee, or yearly subscription fees for materials. In some cases, materials are only made available after attending training. Training costs vary depending on the format and length of training. In some cases, training materials are provided with the programme materials and no formal training is offered. In other cases, training is available on-line, at scheduled training sessions, or on-site. Due to the variety of cost models, pricing can vary substantially from programme to programme. There is little evidence to suggest that more costly programmes are more effective, all else being equal. However, sufficient training does appear necessary to maximise effectiveness (Greenberg, et al., 2005). Since more in-depth training is likely to increase costs, it may be ill-advisable to curtail training costs excessively. In sum, cost should not be an insurmountable obstacle in the delivery of high-quality PSHE education. However, an increased budget allows for greater flexibility and choice.

The second level is provider characteristics. This includes teachers having the appropriate skills to deliver the programme effectively, as well as the confidence and motivation to handle the material. Inevitably, variability in provider characteristics leads to programming of variable quality. This is particularly relevant to PSHE because it is often delivered by non-specialists (DCSF, 2009). It has been noted that over half of secondary schools do not have any members of staff who hold PSHE CPD (Continuing Professional

Development) accreditation and that only 22% of PSHE teachers have some form of PSHE-specific training (Formby, 2011). While this does not take account of other highly relevant characteristics such as enthusiasm, dedication and skill, it does suggest that many PSHE teachers may not have the experience or training required to deliver PSHE education in such a way as to maximise effectiveness. This situation could be improved by ensuring that teachers involved in PSHE delivery have access to generic PSHE training of some kind. By ensuring that teachers have the background necessary to deliver PSHE successfully, it increases the likelihood of high-quality, effective PSHE.

The next level, termed innovation, refers to two characteristics of the programme itself: compatibility and flexibility. Compatibility is the extent to which a programme fits into existing school structures, is compatible with other school initiatives and goals, and caters to the characteristics and needs of the target population. Because a substantial proportion of programmes were developed outside of the UK, it is worth considering their cultural transferability. At the most basic level, there may be components of the materials that do not translate seamlessly to British schools. For instance, some programmes are designed to target the transition from middle school to high school (Farrell, Valois, Meyer, & Tidwell, 2003). Though such materials might be adaptable, they would not be directly relevant to UK classrooms. In other cases, some words or expressions might not translate effectively or might distract from the core message of the programme. On another level, there is reason to question the effectiveness of a programme in a different context to the one for which it was designed. It is important to consider the model or hypothesised pathways through with the programme is purported to work. If these are culturally-grounded, the programme may not be easily adaptable to different cultures. An obvious example involves the Aban Aya Youth Project (Flay, Graumlich, Segawa, Burns, & Holliday, 2004). The programme aimed to reduce violence, sexual risk-taking and other problematic behaviours partly by focusing on cultural norms and increasing cultural identification in an African American context. Clearly, such a programme would have limited applicability in a British context.

Equally important is the risk level of the target group. Prevention programmes can be categorised as either targeted or universal (Greenberg, Domitrovich, & Bumbarger, 1999). Universal programmes target the whole population without consideration of the level of risk within the population, whereas targeted interventions initially identify a set of risk factors as well as a population that is deemed at particular risk and delivers the programme to that population. PSHE education is, by its nature, usually a form of universal intervention as classes are rarely divided based on risk factors. As such, programmes that were developed

and assessed with universal populations are more suitable for inclusion in PSHE classes. The literature suggests that for both universal and targeted programmes, those at higher risk or those with the highest baseline levels of disorder are most likely to benefit from interventions (Horowitz & Garber, 2006). For this reason, programmes which have been demonstrated effective with a targeted population may not transfer with equal success to a universal population. In short, to ensure effective PSHE education it is important that selected programming can feasibly fit within schools with regard to the match between programmes and the intended context.

While the importance of initial compatibility is important, it is unrealistic to expect that programmes will fit seamlessly within existing school structures with no modification. The extent to which a programme is adaptable to different contexts, cultures and needs is termed flexibility. It is interesting to note that flexibility is an important factor in successful programme implementation because of the importance attributed to programme fidelity. Implementation fidelity is the extent to which the programme is delivered as designed. This is important in evidence-based programming because evaluations are limited to providing evidence for the programme as it is delivered during the trial. Substantial differences compromise the applicability of this evidence. At first glance, fidelity and flexibility appear incompatible. Insuring fidelity by definition requires limiting flexibility. In fact, both appear to be associated with programme effectiveness. The challenge is to find the "sweet spot" between fidelity and flexibility.

There are a number of reasons that flexibility might aid implementation quality. First, some adaptations might be required to fit a new cultural context or to adapt to the programme to the needs and capabilities of the participants. Further, matching the programme to teaching abilities and styles has the capability to maximise effectiveness. On the topic of the trade-off between flexibility and fidelity, Durlak and DuPre state:

> Current research suggests that fidelity and adaptation frequently co-occur and each can be important to outcomes. That is, providers often replicate some parts of programs but modify others. Several studies…indicate that higher levels of fidelity are significantly related to program outcomes. However, fidelity levels do not reach 100%, leaving room for adaptation to have an effect." (2008, p. 341).

They conclude that "positive results have often been obtained with [fidelity] levels around 60%; few studies have attained levels greater than 80%" (p. 331). This suggests that perfect

programme fidelity may not be an appropriate target and that a mix of fidelity and flexibility is both unavoidable and beneficial.

The final two factors in determining intervention quality are organisational capacity and delivery support. Organisational capacity includes the general readiness for programme implementation including appropriate staffing and leadership, coordination between school staff, appropriate communication and a clear understanding of the tasks required to implement the programme. (Formby, et al., 2011) note that school contact with local authority staff and other forms of external support is generally minimal. This often meant "that teachers felt they lacked confidence and credibility so stuck to their 'comfort zones'" (p. 60) which often results in inadequate PSHE coverage. Fortunately, sources of support from within the school is more prevalent, with PSHE heads, school nurses or other teachers providing materials, advice and support.

Finally, delivery support includes training, technical assistance and ongoing programme support to deal with any problems or issues that arise during the implementation process. As mentioned previously, there is a strong link between programme effectiveness and adequate training. Though there is little research regarding the effectiveness of different training models (e.g. manuals, on-site training, group training sessions, on-line training), the timing of training (e.g. immediately before implementation) or the length of the training sessions, there is strong evidence to suggest that teacher preparedness is strongly associated with effectiveness. Training is the most important way to prepare teachers for programme delivery and as such, is essential to adequate implementation. However, programme support does not end with training. Ongoing support is also important to deal with any problems that may arise and to ensure that teachers feel supported during the implementation process. A meta-analysis (Dane & Schneider, 1998) found that fewer than half of all prevention programmes in the sample demonstrated "comprehensive integrity promotion" which included formal training, an implementation manual and ongoing support. Further, these elements were associated with increased programme effectiveness. As discussed previously, PSHE teachers would benefit from more training and support, and this may be an area where implementation quality can be improved.

4. Summary of the Delivery Model

A recent review of nation-wide PSHE concluded that there is "a lack of clear or shared understanding on the nature of and rationale for PSHE education amongst teachers and schools" (Formby, et al., 2011, p. 6). Coleman (2009) reiterates this view when he claims that, in regards to programmes designed to foster wellbeing in British schools, "there is no agreement about what should be the focus of an intervention programme" (p. 286). There are a number of reasons for the typically fragmented nature of PSHE aims and content. Firstly, PSHE often serves as a vehicle for meeting statutory requirements related to student health and wellbeing. While statutory components of PSHE such as SRE and substances education are important in and of themselves, PSHE as a catch-all for the variety of statutory teaching requirements leads to a piecemeal approach (Crow, 2008). Related to this concern, PSHE shares a common characteristic with prevention research as a whole in that it is often determined reactively. In other words, PSHE can be "disaster-driven"; PSHE content is not necessarily led by an overarching rationale, but by any number of individual, institutional or community concerns about the prevalence of certain dangers, disorders or other problems. A responsive mode not only decreases the coherence of a PSHE programme but also confers a tone of negativity and didacticism. Rather than the promotion of positive mental health and wellbeing, disaster-driven PSHE can seem overly focused on what can go wrong and how to avoid it.

This problem is not confined to PSHE education but is a prevalent problem of life skills training in general and this is reflected within life-skills programmes. The approach of the current project of identifying evidence-based programming to form a cohesive PSHE syllabus is in danger of appearing as disjointed and reactive as any PSHE programme if a coherent PSHE rationale is not identified and used to guide programme selection. Needless to say, adopting such an approach does not change the fact that there are a limited number of available evidence-based programmes and that many have been developed reactively and focus on prevention of disorder rather than wellbeing and health. Furthermore, there is still a need for PSHE education to cover certain content areas. The challenge lies in identifying a guiding framework that takes account both of the types of programmes that are available, as well as the content areas that schools are interested in targeting, whether statutory of not.

To fulfil the role of a guiding framework, an adolescent developmental model for PSHE education was adopted. It has been suggested that "[Schools with successful PSHE programmes] are more likely to see the role of PSHE education as supporting both life skills

and pupil learning" (Formby, et al., 2011, p. 5) yet "personal development was rarely mentioned in secondary schools, the focus being largely on social life skills, with no clear links to learning more broadly" (p. 2). This suggests that a model for PSHE centred on adolescent development and the life skills that contribute to health and wellbeing could offer the underlying, cohesive rationale for PSHE which is currently lacking.

PSHE education is comprised of the skills that lead to healthy development (MacDonald, 2009). As mentioned, the reactive approach to PSHE and life skills more generally has led to a series of related components which are aimed at preventing negative life events that can hinder healthy development such as sexual ill-health, mental disorder, substance abuse, obesity or accidents. In fact, whether labelled in terms of prevention (of detrimental health-related outcomes) or promotion (of functional skills and health) life skills education in secondary schools should be aimed at encouraging healthy adolescent development. From such a perspective, the emphasis of PSHE education is less "disaster-driven" and is instead focused on developmental needs, abilities and context. Further, conceptualising PSHE in terms of adolescent development provides a model for curriculum organisation. The choice of evidence-based programmes and the structuring of a cohesive syllabus can be guided by at least three aspects of adolescent development:

1) **Cognitive development**

   Of importance is tailoring PSHE content to the cognitive abilities of students. Many programmes focus on complex issues and teach skills that not all students can adequately understand. By taking account of cognitive development, PSHE programming can build in complexity with more advanced topics building on previously developed skills

2) **Social Context**

   The changing social context throughout secondary school has important implications for the focus of PSHE education. Adolescence leads to a number of changes in social structure and new challenges such as adaptation to larger peer-groups, group identification and developing a healthy self-concept become important (Coleman, 2010). The changing nature of social relationships leads to the increasing relevance of different skill sets. For example, the emergence of sexual behaviour requires a particular skill set to ensure sexual health, whereas such skills would be less relevant earlier. While a broad set of skills and knowledge are important throughout adolescence (and adulthood) the specific focus of life-skills training should be

determined partly by the types of social interactions and concerns in which adolescents are involved.

3) **Interests**

Finally, throughout development, the interests and concerns of adolescents change. Effective PSHE should take note of students' prevalent developmental concerns. These concerns may span any number of domains such as understanding the media, substance use and abuse, mental illness or sexual interactions. PSHE education is, after all, designed to serve students and their perspectives regarding what is important or interesting should be central determinants of PSHE content.

In short, a PSHE curriculum based on an adolescent developmental model provides a parsimonious rationale for PSHE education and ties together fractious elements. Throughout adolescent development, a variety of stages and challenges are faced. These require a number of interrelated skills to navigate successfully. By taking account of normative developmental pathways as well as the various ways they are navigated by adolescents and the risks for upheaval, disorder and ill-health, a cohesive approach to PSHE emerges. PSHE content can then be delivered flexibly based on the developmental concerns of the age-group in question and tailored to local context. By considering developmental stages and concerns and seeking to stimulate healthy development, a clear rationale for PSHE can be defined.

While this constitutes an appropriate rationale and starting point for programme selection, it is important that PSHE content fits the adolescent developmental model while at the same time fulfilling school requirements and fitting within established PSHE frameworks. This is particularly important because while a focus on healthy adolescent development provides a guide for programme selection and how these programmes fit together to form a comprehensive syllabus, as the sole basis for content selection, it is too broad. As such, it is important to note how schools typically organise PSHE content. According to the MacDonald report (MacDonald, 2009) the Personal Wellbeing programme of study incorporates five key content themes, and these are reiterated in the recent PSHE mapping exercise, suggesting that they constitute an established organisational framework. The five content areas are:

- **Diet/nutrition and Healthy Lifestyle:** This category includes programming designed to encourage physical health with a focus on healthy eating and exercise patterns. In secondary schools, an important focus is body image and the promotion of healthy physical self-concepts and the prevention of eating disorders.

- **Drugs, Alcohol and Tobacco Education:** Drugs education is statutory in secondary schools and is designed to provide information about substances, their use, and dangers associated with them, as well as developing healthy attitudes and skills for avoiding harm from substances and making appropriate decisions regarding their use.
- **Emotional Health and Wellbeing:** This includes programmes which are targeted at students' mental and emotional health. This may include a fuller understanding of emotions, how they arise, and managing emotions effectively. Additionally, programmes designed to prevent or inform about psychological disorders such as anxiety and depression are also relevant.
- **Safety Education:** In secondary schools, safety education is inherently tied to the four other PSHE areas as safe sexual behaviour and attitudes to substances, as well as emotional and physical health are key to safe and healthy lifestyles. Additionally, the prevention of violence and bullying, as well as the promotion of safe media use contribute to school and pupil safety (Formby, et al., 2011)
- **Sex and Relationships Education:** Sex and Relationships education focuses on the skills and information necessary to establish healthy romantic/sexual relationships, make appropriate choices about sex and relationships, and avoid unsafe sexual behaviour. Also, SRE serves as a basis to teach parenting skills which will inform students' sexual practices and provide a basis for future parenting training at a time when these skills are directly applicable.

These content areas are used to refine the adolescent developmental approach described earlier and applicable programmes will target one (or more) of these areas. Because each of these areas entails teaching a series of related skills, such as social skills, emotional awareness and self-esteem/concept, structuring the adolescent developmental model based on these five themes results in a spiral curriculum with key skills being revisited in the context of each domain area.

In addition to PSHE content, schools are also constrained by other considerations such as class-time, class schedules and money. An appropriate delivery model must take stock of these considerations to ensure that the syllabus of programmes, as well as the programmes themselves, match the needs and priorities of schools.

A primary issue is time. Research regarding the structure of PSHE in schools suggests that, on average, schools deliver approximately one hour of PSHE education per week (Formby, et al., 2011). It is most feasible to attempt to fit into the time constraints of schools

to make adherence to the model more likely and more widespread. One hour a week (or 40 hours a year) amounts to a total of 200 hours of secondary PSHE. However, within these hours, citizenship and economic wellbeing also must be accommodated. As such, a four year personal wellbeing syllabus is proposed. This allows some room for other PSHE components and accounts for the fact that in the last year of school the prevalent focus on GCSEs (of which there are no PSHE qualifications) leaves little room for PSHE programming.

There is substantial variation in how the typical hour per week is scheduled in schools. It is often scheduled into the timetable or alternatively, makes use of tutor time. Conversely, it can be structured as "drop-down days" where the usual timetable is suspended in favour of intensive PSHE programming (DCSF, 2009). For three reasons, the delivery model prioritizes a timetabled, weekly approach to PSHE. Principally, there is evidence to suggest that weekly lessons are more effective than other delivery formats (Ofsted, 2005). This may be due to student abilities to learn and retain information over brief periods of time. Weekly lessons allow for complex information to be scaffolded on earlier, more basic lessons. Additionally, weekly lessons (compared to drop-down days) make for a longer period during which students are actively involved in PSHE lessons, making them cognitively salient for a longer duration. Second, weekly scheduled PSHE legitimizes it as a school subject, which may increase student and teacher attention and dedication and ensure that it is suitably resourced. Lastly, available programmes are generally structured in the form of a number of discrete lessons of the approximate length of a school class period (e.g. between 45 minutes and one hour). To increase the likelihood of implementation fidelity, it is practical to mirror the customary structure of relevant programmes.

Finally, with respect to PSHE organization, there is evidence to suggest that, due to limited resources, regular classroom teachers are typically relied upon to deliver PSHE lessons in schools (Formby, et al., 2011). Though this can be problematic, particularly because the majority of teachers have little to no training in the delivery of PSHE, it is unfeasible to expect schools to have the resources to regularly draft in specialists for PSHE education. As such, the current project focuses on programmes that can be delivered by trained teachers without the need for visits from external support. Furthermore, despite the success of "whole-school" approaches, the current project focuses exclusively on the curricular component of PSHE. This does not preclude the resources noted herein from being used in tandem with whole-school components such as changes in school policy and professional practices, including students in leadership and decision-making, and additional student support. Unfortunately, such initiatives are beyond the remit of this project.

5. An Evidence-Based PSHE Syllabus

The main goal of this project is to determine a model of PSHE as well as a series of programmes that are demonstrably effective in targeting PSHE-relevant content and aims. This requires taking account of all the lessons learned in regards to effective programme development, implementation and evaluation. The result attempts to make full use of the evidence available which, despite some limitations, suggests that PSHE can be taught using demonstrably effective material and, when done so, can have significant effects in a number of relevant domains.

Programme Selection and Presentation

The major considerations in choosing applicable programmes have been discussed at some length. To reiterate, these fall into three main categories: evidence, content and context. In short, relevant programmes must fit the adolescent developmental model, have applicable programme content, be feasibly implementable within PSHE lessons and be demonstrably effective for health- and behaviour-related outcomes. While the relevant considerations for selection have been identified, no strict selection criteria were devised. This was for two principal reasons. First, because of the breadth of PSHE, a variety of different programme-types are required. This, coupled with the various needs of different schools means that a number of programmes are needed to ensure that all schools are properly served with adequate evidence-based programming. This is not always possible, especially because in most areas evidence of effectiveness is basic at best and more research is required. In short, while for some topic areas there are a variety of high-quality, well-evaluated programmes, for the most part, this isn't the case. As such, selection criteria had to be kept flexible depending on the availability of programmes. Secondly, programmes can vary based on evaluation quality, cultural applicability, programme quality, implemention feasibility and many other factors. It is difficult to determine how each of these factors weigh-in to the selection process. For instance, programmes with extensive, high-quality evidence-bases may be expensive and not have an established presence in the UK. Contrast that with a programme with preliminary evidence of effectiveness that has been implemented and evaluated in the UK and is easily obtainable and inexpensive. To balance these features, it was important to maintain a degree of flexibility.

While PSHE is customarily organized based on *content*, the adoption of an evidence-based approach is suggestive of a different organizational structure, one based on evaluation

outcomes. Evidence-based programmes have, by definition, key outcome variables that are purportedly targeted, as well as evidence as to the effectiveness of the programme in regards to the respective outcome variables. Programme content is designed based on the theorized causal pathways of the programme. This means that content and outcomes are substantially related. Organising identified programmes based on outcomes rather than content emphasises the health- and behaviour-related aims of this project. This results in a set of programmes that comprehensively target key PSHE areas effectively, rather than simply covers the appropriate content area. These programmes fall into one of the five core content areas identified by previous reviews of PSHE practice:

- Diet/nutrition and Healthy Lifestyle
- Drugs, Alcohol and Tobacco Education
- Emotional Health and Wellbeing
- Safety Education
- Sex and Relationships Education

The programmes have been organized into a model four-year curriculum. This model curriculum is organised based on an adolescent developmental model of PSHE in that the curriculum is developmentally appropriate with later programmes building on previous content. The curriculum is aimed at developing a series of skills and competencies and these are reiterated in regards to the five content areas, though similar overlapping social and emotional skills are required to promote health, confidence and safety in each of these domains. Each individual programme involves less than 20 hours, but the combined package will involve 120 hours. This could conveniently be taught over 4 years (Years 7, 8, 9 and 10), with 30 hours a year taught within a regular weekly PSHE slot. The model curriculum is presented in Figure 1. (Note that "Health and Safety" comprises "Safety", "Drugs, Alcohol and Tobacco Education", and "Diet/Nutrition and Healthy Lifestyles".)

	The package (hours)		
	Emotional Health and wellbeing	**Sex and relationships education**	**Healthy and Safety (including Safety, Drugs and Diet Education)**
Year 7	The UK Resilience programme (18)	Life skills training (12)	
Year 8		Parents Under Construction (14)	Media Ready 1 (7) Media Ready 2 (8)
Year 9	Friends for Life (9) Science of Mental Illness (5)	Safer choices (10)	SHAHRP (6)
Year 10	Mood Gym (4)	Relationship smarts (13) Safer choices (cont.; 10)	SHAHRP (cont.; 4)

Figure 1: A Four-Year Model Curriculum

Organising the syllabus in this way allows for it to serve as an example for a complete secondary PSHE curriculum, but it can also be used more flexibly. Individual programmes can be extricated from the wider model and implemented in isolation or a selection of programmes can be implemented. This may be more feasible for some schools or best meet the specific needs of students and teachers. After all, each programme was evaluated individually and none were designed specifically as a component of a wider life-skills curriculum. While each programme is listed under a particular year of study, most programmes are targeted at age ranges of three to four years, offering some flexibility in regards to when programmes are delivered

The full model is presented in Appendix 1 with brief summaries of the included programmes. Further information about these programmes as well as a list of programmes that do not fit into the model curriculum due to time constraints or to avoid repetition, but still warrant consideration for inclusion in PSHE education are presented in Appendix 2.

6. Limitations

The approach adopted in this initiative involves identifying evidence-based materials that are applicable within British secondary schools. While there are a number of reasons to expect

that this could be of benefit to the overall effectiveness of PSHE lessons, focusing on this aspect of PSHE education carries a number of limitations.

Some of these limitations arise due to the contextual restrictions presented by the current state of PSHE education. Ensuring that identified programmes could be feasibly implemented in schools led to a narrowed focus on a particular type of evidence-based programme, irrespective of the effectiveness of excluded programme types. In particular, all of the identified programmes are principally curricular, meaning that programmes with a whole-school approach were not considered. This is due to the complexity involved in implementing whole-school approaches. Curriculum-based programmes are relatively straightforward and, notwithstanding the preparations and training required, are designed to be ready to implement in schools without substantial alteration. Whole-school approaches are far more context-dependent and require careful consideration of existing school policies, ethos and staff and student characteristics (Weare, 2000). Whole-school approaches to PSHE often involve cross-curricular coverage of PSHE themes with core PSHE lessons enriched and supported by relevant material provided in other subjects. Additionally, while curriculum approaches often require the involvement of a single classroom teacher, whole-school approaches require broader staff involvement. Needless to say, whole-school approaches, by encouraging systematic and school-wide changes have the potential to have pervasive effects on a school and its students. However, while their flexibility and intricacy contribute to their effectiveness, these characteristics make them less generalisable. Focusing on curricular approaches does not preclude that the identified materials be incorporated within a wide whole-school approach to PSHE, but the fact that evidence-based whole-school approaches are not specifically targeted constitutes a substantial limitation.

Relatedly, a number of programmes rely on professionals from outside the school to deliver the programme content. Due to the expertise that these professionals bring to the task there is reason to suggest that this approach might be particularly successful. This is especially true considering most PSHE teachers are not specialists in this area. However, involving non-school personnel in this manner carries a number of disadvantages such as the additional cost and planning involved. Also, for the sake of continuity and to develop a sense of trust and stability in the classroom, it may be beneficial for the same staff member to regularly teach PSHE classes however, cost-permitting, there is no reason that the identified curricular materials not be supplemented by external visits or other irregular programming.

In addition to *a priori* decisions taken to increase the feasibility of identified programmes, we are limited by the programmes that fit the broad selection criteria in a number of ways. In

regards to evidence of effectiveness, none of the identified programmes are unqualified successes. When significant programme effects are found they are invariably small and often inconsistent. Also, programme evaluations vary substantially in quality and all of the identified programmes would benefit from further evaluation. In short, though the identified programmes are among those with the most evidence of effectiveness the limits of this evidence are substantial.

Though every effort to identify programmes that are applicable to PSHE aims and content areas was taken, there a number of limits to the programmes in terms of content. For better or worse, the landscape of available programmes is dictated by a range of local or national endeavours, concerns and initiatives. This has resulted in a selection of programmes developed for a range of purposes and contexts that do not necessarily match those of secondary PSHE education. While an adolescent developmental model was used to guide programme selection and establish a cohesive rationale, the extent to which programmes fit comfortably within it is debatable. A pervasive criticism of PSHE education is that it is "disaster-driven", focusing on dangers, disorders and misconduct (Formby, et al., 2011). Since evidence-based programmes are often developed in response to such concerns, any syllabus comprising them will be reflective of them. Despite efforts to avoid a "supply-led" curriculum whereby content is dictated by the programmes which are available, this was, to an extent, unavoidable and will be until a wider array of programmes developed specifically with PSHE aims in mind are developed. Though all PSHE-related content areas would benefit from additional programming, there is a notable lack of evidence-based resources for teaching about SRE, media literacy, mental illnesses and parenting skills. Additionally, though a number of programmes teach social skills, evaluations rarely focus on demonstrating increases in social skills, meaning that programmes which are demonstrably effective in increasing social skills are rare.

Focusing on evidence-based programmes is also problematic in that issues of context are de-emphasized. In implementing programmes in PSHE there is an inevitable trade-off between flexibility to accommodate contextual factors, and prescriptiveness. "Teachers know the children they teach, they know their strengths and limitations, their social backgrounds and their aspirations and should be empowered to use their professional judgement to develop PSHE education in ways that are accessible to all the pupils they teach." (Association of Teachers and Lecturers, 2008, p. 3) Many programmes are criticised because they are considered too didactic, leaving little room for teachers to teach flexibly in a

manner which maximizes effectiveness. Recommending a series of manualised programmes could similarly be considered overly prescriptive.

Other contextual factors also limit the effectiveness of a programme-focused approach to improving PSHE. The majority of identified programmes were developed in the US or Australia and it is questionable whether these would translate effectively to a British context. They may focus on demographic groups, contextual risk factors or needs that are not applicable in this country (Coleman, 2009). Additionally, some programmes were developed and evaluated over a decade ago raising concerns about whether they are still presentable and effective. Again, while programmes were sought based partly on their applicability in current PSHE, there is inevitably some mismatch when these programmes were developed with other contexts in mind.

An evidence-based approach also necessarily excludes a number of "homegrown" PSHE programmes that are currently thriving in British schools. It is important to point out that some schools devote a great deal of effort to providing high-quality PSHE content. When such efforts are taken, it increases the likelihood that these PSHE programmes are relevant, informative and effective. However, due to the resources required to adequately evaluate these programmes within schools, evidence of effectiveness is limited. As such, these programmes rarely fit within the evidence-based approach adopted here despite the high quality of these programmes and the fact that, being developed specifically for purpose, they are context-relevant.

Other limitations arise due to implementation issues. All of the identified programmes have been evaluated individually, but none were developed to be delivered as part of a package of programmes. As such, it is unclear whether they will have the same impact in this context. Little research has focused on the interaction between multiple programmes implemented in tandem. There is scope for these programmes having a cumulative effect, leading to large overall effects. However, the possibility of interference between programmes cannot be discounted. On the face of it, there are no clear contradictions between programme aims but the only way to be certain that these programmes work as effectively as a package as they do individually is to evaluate them together.

More generally, it is worth reiterating the importance of implementation quality and fidelity. The effectiveness of evidence-based programmes depends on these factors (Durlak & DuPre, 2008). Identifying high-quality materials is of little use without corresponding efforts to ensure adequate delivery. In this regard, programmes for which training is available were emphasised. However, these training sessions are usually brief and while they

are no doubt valuable in helping teachers deliver the programme effectively, they cannot be expected to fully prepare teachers with the wide array of skills needed to teach such a complex and sensitive subject. On top of this limitation, getting training for each individual programme would be time-consuming and expensive. Since only a small percentage of PSHE teachers have formal training, a more efficient solution might be to encourage generic PSHE training for all teachers involved in its delivery. While these issues are beyond the scope of the current initiative, it is worth pointing out that developments regarding other aspects of PSHE beyond evidence-based materials could contribute substantially to PSHE quality.

Finally, it is worth re-stating that this project focuses on health and behaviour outcomes and the ways to maximize PSHE's effect on them. PSHE offers a viable method of increasing adolescent health and safety and this project is designed to capitalize on this potential. However, health outcomes are not the only relevant outcomes when it comes to PSHE quality. Learning outcomes, student and teacher satisfaction, academic achievement, and school-wide outcomes such as scholastic quality and positive school environment are all important determinants of overall quality. Because this project targeted health and behaviour outcomes, these other outcomes were not fully considered. There is the capacity for the skills taught in the identified programmes to contribute indirectly to such measures, but they warrant equal attention in their own right.

7. Implications and Conclusion

By establishing a four-year model PSHE curriculum, as well as identifying relevant evidence-based programmes, it is hoped that this initiative will have the following implications:

1) **Increase adolescent health and wellbeing**

   Ultimately, encouraging the uptake of evidence-based programmes is aimed at improving the general health of adolescents. This includes reducing depressive symptoms and anxiety and the stigma of mental illness, increasing self-esteem and promoting a positive self-concept, encouraging healthy eating, exercise and healthy lifestyles, reducing the use of substances and the harm resulting from their use, encouraging healthy sexual practices, increasing positive social interactions and teaching skills for minimizing conflict, and encouraging help-seeking behaviour when necessary. The model curriculum described herein consists of programmes that are

demonstrably effective in targeting these and other important outcomes. Since these are all aspects of healthy functioning, if these programmes work as expected and as they have in the past in other contexts, the result will be a healthier, happier adolescent population.

2) **Coherent and comprehensive PSHE**

The limited amount of assessment on PSHE suggests that it is generally well received and contributes to student learning aims. This does not mean that there is not room for improvement regarding the general quality of PSHE education. PSHE is often criticised for its piecemeal approach. Proposing an adolescent developmental model and relevant programmes amounts to a step towards a coherent framework for PSHE. Additionally, by ensuring that elements of all the major content areas are targeted, a more comprehensive approach to PSHE is encouraged. However, for further improvements to be achieved, a broader set of materials developed specifically with the aim of coherent and comprehensive PSHE will need to be developed.

3) **Higher quality teaching materials**

The PSHE mapping exercise (Formby, et al., 2011) notes that teachers currently get resources from a wide variety of sources and their satisfaction with the quality of these materials is equally variable. Further, some teachers point to a general lack of teaching resources, regardless of quality. While resources provided by government initiatives are generally viewed favourably, they are not deemed sufficiently broad. Considering that the programmes comprising the model curriculum have all been successful to a degree in meeting their aims, it is likely that this is due at least partly to the quality of the teaching materials. Furthermore, the majority of the programme evaluations suggest the programmes lead to significant learning outcomes and increases in student knowledge. Because these programmes are designed to be widely available they are subjected to quality-control usually including piloting, updates where necessary or relevant and substantial development time.

4) **Less between-school variability in PSHE quality**

Ofsted inspections note that, while the quality of PSHE is generally high, there is substantial between-school variability. (Ofsted, 2010). Part of this variability is likely caused by poorly structured, uncomprehensive PSHE curriculums and low quality classroom materials and our report provides recommendations for improvements here. If they were to be widely adopted, they would lead to a general increase in PSHE

quality and would also narrow the gap between high and low quality PSHE programmes.

5) **Better understanding of the barriers and facilitators to effective PSHE**

   In addition to recommending a model curriculum, this report has highlighted a number of barriers to evidence-based PSHE education. It is hoped that this will be of use to schools by encouraging consideration of a number of issues related to the successful implementation of PSHE-relevant programmes. This includes the evidence of effectiveness and its credibility, its relevance to school aims and needs, the transferability of the programme to the intended context and planning and training requirements.

6) **Guidance for future research and initiatives**

   Despite this guidance, it might be argued that this report highlighted as many problems as it did solutions. Certainly, there is a need for continued research in this area. While this initiative pointed to a number of evidence-based programmes of use to PSHE education, the evidence-base is not always strong, the content not specific to PSHE and the programme not tailored to a British school context. More evaluation of existing school-based programmes is needed and there is scope for the development of new programmes. Other pertinent issues also require attention. For example, there are suggestions that teachers are undertrained, PSHE is not given sufficient attention and effort in some schools and student needs and interests are not sufficiently taken into account. Needless to say, the current initiative is a small piece of a larger effort to improve PSHE education.

Conclusion

The aim of this report has been to deliver a realistic appraisal of the difficulties, as well as the facilitators, involved in implementing evidence-based PSHE. First there is ongoing controversy regarding the adequacy of the evidence for most programmes and whether the outcomes of evaluations are relevant to PSHE education. Despite a proliferation of school-based programmes in recent times, the extent to which these mesh with PSHE aims and content areas varies from programme to programme and further programmes need to be developed and evaluated to ensure comprehensive curriculum coverage. Second, since most

evidence-based programmes were not developed specifically for use in PSHE classrooms there are substantial difficulties inherent in implementing them in British schools.

Despite these concerns, there is genuine reason for optimism about the effectiveness of PSHE education. There is a growing recognition of the importance of the subject and a dedicated (if often undertrained) set of teachers and school staff promoting and delivering it. Furthermore, there is evidence that life-skills, social-emotional learning and prevention programmes can work, with most demonstrating significant, if generally small, effects. Most schools have the infrastructure in place to deliver PSHE with an average of an hour a week devoted to the subject. In sum, PSHE offers a promising opportunity to contribute to the health, wellbeing and safety of adolescents both now and for the future. One aspect of maximising this potential is to ensure that the classroom materials are of the highest quality and likely to have a significant effect on health and behavioural outcomes. With this in mind, the current project has sought to define a model and cohesive rationale for PSHE delivery, identified relevant programmes that can be feasibly implemented and organised a developmentally appropriate, comprehensive four-year PSHE syllabus.

End Of Project Financial Statement

Paul Hamlyn Foundation

Improving Teaching of life skills in Secondary Schools

Professor PRG Layard

Financial Statement for the period 01/04/10 to 31/03/2011

	Budget £	Expenditure £	Balance £
Travel & Subsistence	4,000.00	5,188.84	- 1,188.84
Consumables	1,500.00	48.93	1,451.07
Research Officer	68,500.00	69,885.19	- 1,385.19
Casual RA	1,000.00	-	1,000.00
Total	**75,000.00**	**75,122.96**	**- 122.96**
Payment received		**- 75,000.00**	
Balance		**122.96**	Overspend

Appendix 1

A Four-Year Model Curriculum

YEAR 7

- **The Resilience Programme** (18 hours)
  This programme aims to help young people understand their own emotions and to develop the tools to manage them. It helps them interpret better the attitudes of others and to become more optimistic and resilient. The programme has been scientifically evaluated in 18 schools in the U.S., Australia and China and found on average to reduce depression by .1 to .2 standard deviations (Brunwasser, Gillham, & Kim, 2009). It is now being evaluated in 22 English schools, and shows significant effects on depression, attendance and academic attainment (Challen, Noden, West, & Machin, 2011)

- **Life Skills Training** (12 hours)
  This addresses not only substance abuse but also school violence and bullying, using a common set of skills and values. Students are taught skills for problem-solving and decision-making, including understanding and resisting media influences, effective communication, managing anxiety and stressful situations, relationship skills and self-assertion. The programme also delivers specific information about the prevalence and danger of substance abuse and violence. The programme has demonstrated effectiveness in reducing violence, bullying and aggression, by around .35 standard deviations (Botvin, Griffin, & Nichols, 2006) and substance use by .1 and .2 standard deviations (Trudeau, Spoth, Lillehoj, Redmond, & Wickrama, 2003).

YEAR 8

- **Parents Under Construction** (14 hours)
  This programme approaches sex through the responsibilities of being a parent. It begins with child development, a subject of great interest to 12-year olds, and how positive mental health can be fostered from a young age. The next unit focuses on nurturing self-esteem in children and the influence that parents have on its development. The third unit focuses on the skills needed to raise children effectively, including different parenting and disciplinary techniques and communication skills. The last unit is on how to solve problems and get help. Teaching students about parenting is expected to have an impact on parenting skills in the future and, more immediately, increase empathy. The programme has significant effects for parenting knowledge and attitudes towards discipline and parenting practices (Backscheider & Hawkins, 2000).

- **Media Ready** (7 hours)
  (Note: There are two programmes called "Media Ready" that are unaffiliated.)
  This programme aims to develop a healthy sense of identity, physical self-concept and body shape. This has important implications for the establishment of healthy eating behaviours and physical exercise, as well as the prevention of eating disorders. A key aim is improved media literacy skills regarding media portrayals of body-image. Students are taught to interpret these messages and gauge the extent to which they are realistic and apply to real life. This helps students understand the pressure placed on

young people in regards to body image from the media and elsewhere. The programme has been found to reduce weight concerns in students, increase self-esteem and foster a feeling of efficacy in regards to constructing a positive body image, with effects of around 0.3 standard deviations (Wilksch & Wade, 2009).

- **Media Ready** (8 hours)
  (Note: There are two programmes called "Media Ready" that are unaffiliated.)
  This programme is designed to enhance students' ability to apply critical thinking to media messages, in general, and alcohol and tobacco media messages in particular, with the specific aim of delaying or preventing the onset of underage alcohol and tobacco use. Students are taught to understand the purpose of media messages including who made the message and why. Additionally, techniques used in advertising are discussed and deciphered with a view to assessing the realism of media messages. The programme reduces intentions to use tobacco by .35 standard deviations and to use alcohol by .25 standard deviations (Kupersmidt, et al., in press)

YEAR 9

- **Friends for life** (9 hours)
  This revisits many of the issues in the Resilience programme but in a more adult style and with a special focus on anxiety. It helps adolescents cope with feelings of fear, worry, and depression by building resilience and self-esteem. Friends for life contains a series of activities designed to teach students the relationship between thoughts and feelings, relaxation skills, and how to cope with worries, develop positive self-regard and build positive relationships. The programme has been extensively evaluated and is demonstrably effective in reducing adolescent anxiety (by up to .35 standard deviations) and depression (.22) as well as increasing coping skills (.53; Lock & Barrett, 2003). It is being used widely in Scotland.

- **Science of Mental Illness** (5 hours)
  This aims to increase awareness and understanding of mental illness, to reduce stigma and to increase help-seeking behaviour. Programme content is available online but requires teacher direction. The programme introduces the key mental illnesses and describes their course, effects and treatment. The programme is explicit about the biological factors contributing to serious mental illness. Activities are designed to increase understanding of people with mental illnesses. Illnesses covered include depression, schizophrenia, attention deficit hyperactivity disorder (ADHD), autism, and obsessive-compulsive disorder. Evaluation results suggest that it leads to a greatly increased knowledge of mental illness (effect size of 1.22) as well as reduced stigmatisation (.16; Watson et al., 2004)

- **Safer Choices** (10 hours in Year 9; 10 hours in Year 10)
  This programme (split between Years 9 and 10) aims to reduce sexually risky behaviour, to prevent HIV and other STDs, and pregnancy among high school students. The programme provides students with knowledge about sexual norms, STDs, pregnancy and safe sex techniques. It aims to change attitudes towards unsafe sex and promote the benefits of delaying the onset of sexual behaviour. It also teaches the skills of refusal and negotiation in sexual situations. The programme is demonstrably effective in increasing

knowledge and healthy attitudes in regards to safe sexual behaviours (Coyle et al., 2001). Importantly, the programme also has effects on self-reported behaviour by reducing the frequency of unsafe sexual behaviours (including unprotected sex).

- **SHAHRP** (6 hours in Year 9; 4 hours in Year 10)

  This programme is targeted at alcohol and resulting harmful behaviours. It teaches students the skills necessary to identify situations in which alcohol-related risks may arise, how to avoid them and how to deal with risky situations. It includes decision-making skills, assertiveness training and alcohol-specific information. The programme has been trialled recently in Northern Ireland, with significant effects on knowledge and attitudes, including actual harm caused to self and others by drinking (McKay, McBride, Cole, & Sumnall, 2011).

YEAR 10

- **Mood Gym** (4 hours)

  This is a totally computer-based programme that revisits the fundamental lessons on resilience developed earlier. It is designed to reduce anxiety and depression by increasing emotional awareness and skills to manage emotions effectively. These skills include identifying biased and unhelpful thought patterns and altering them to be more accurate and productive. The programme explores the effect of negative and biased thought patterns on emotions. Students are encouraged to consider situations that give rise to negative thoughts and feelings and how they can be handled effectively. Finally, the importance of relationships to emotional health is discussed as well as skills for coping with relationship breakdowns and other problems. The most recent evaluation found significant programme effects for anxiety (.2 standard deviations) and depression for males (.31 to .43; Calear, Christensen, Mackinnon, Griffiths, & O'Kearney, 2009)

- **Relationship Smarts** (13 hours)

  This is focussed on romantic relationships, rather than on sex as such. Initial sessions deal with students' personal identities, what they value in a relationship and the importance of maturity in relationships. This is followed by lessons about the indicators of healthy (and unhealthy) relationships, as well as strategies for establishing and developing healthy relationships. The programme also focuses on the development of communication skills. Finally, the programme deals with issues that students may face in the future such as marriage and child-rearing. An initial evaluation suggests that the programme significantly improves attitudes conducive to healthy and safe relationships and leads to more accurate and realistic beliefs about romantic relationships (Kerpelman, Pittman, Adler-Baeder, Eryigit, & Paulk, 2009)

Appendix 2

PSHE Model Curriculum: Full Programme Information and Additional Relevant Programmes

Introduction

Information regarding each programme is divided into two sections. The first includes descriptions of the programme itself as well as practical considerations. The second summarises a key evaluation report and highlights the outcomes for which the programme is demonstrably effective. Each of the headings are described including information regarding how each programme characteristic guided programme selection.

Aim of programme (and content category):
This outlines the targeted outcomes of the programme and usually forms the basis of the outcome variables chosen for programme evaluations. A broad range of programme aims might be applicable in any one topic area.

Content: Programme content is usually associated with programme aims and refers to the material that is delivered in class, the delivery method and who the intended programme facilitator is. Programmes were selected that could be easily implemented within the usual structure of PSHE classes. That is, content should be deliverable by teachers using the resources that are available in British schools. This meant that curricular approaches with teachers as programme leaders were emphasised.

Group programme is designed for: This refers to the target population for which the programme was developed. The target population can vary by age, culture or risk status. Programmes with target populations that reflect the secondary student population in regards to culture and age were preferred, as were universal programmes, since PSHE is designed to be delivered to all students irrespective of pre-existing risk factors.

Length/number of sessions:
The total classroom time commitment required is reported here. Further, the way in which the programme is structured is also included. For instance, programmes may be developed to be delivered in a number of sequential classroom-period length sessions over a relatively short time period, spaced out over a larger time period, or delivered within intensive, longer sessions over a relatively short time period. Because PSHE is likely most effective when delivered regularly (rather than "drop-down" days), and schools have, on average, an hour a week to commit to PSHE, programmes that can be implemented in such a fashion were preferred.

Cost:
Many programmes have one fee which includes training, classroom materials and any supporting materials. For other programmes, a number of different charges apply depending on the training model, number of students or programme components required. Some programmes are freely available. Where possible, inexpensive programmes were preferred due to the limited resources of many British schools.

Information about training:
Training is associated with programme effectiveness and, as such, is an important aspect of evidence-based PSHE. Training can be delivered in the form of training manuals, on-site training, courses or on-line. Programmes with easily available and cost-effective training were preferred. For instance, a number of programmes do not offer training courses outside of the country of origin. As such, organising training sessions in the UK would be inconvenient and expensive.

Summary of advantages and disadvantages:
This provides a summary of the ways in which the programme is particularly suited to being adopted in PSHE classrooms as well as the main practical problems or limitations of the programme and its evidence of effectiveness.

Where programme and further information can be obtained:
All the programmes listed have a dedicated website where additional information is available and where the programme can be ordered or downloaded.

Information Regarding the Evidence

Sample:
The sample population used in a programme evaluation has important ramifications for both the quality of the study and the applicability of the programme in British schools. A number of sample characteristics are reported here including the total sample size (at pre-test unless otherwise stated, including control and intervention group; denoted by N), how participants were allocated to the intervention and control groups and the age of participants. Additionally, information regarding where the evaluation was conducted and any notable cultural characteristics of the sample is included.

Changes made from available programme:
This details any changes made in the evaluated version of the programme compared to the version which is currently available to British schools. For instance, truncated versions of programmes are often evaluated due to time restrictions, or other practical considerations preclude the use of the original version of the programme. Also, often programmes are updated after it has been evaluated in which case the evaluated version would differ from the new version. Ideally, the available programme matches the evaluated version as this negates the possibility of changes to the programme detracting from its effectiveness.

Follow-up times:
The most basic evaluations only include a post-intervention assessment, with more comprehensive evaluations including further assessment periods so that long-term effects can be evaluated. Details regarding the number of assessments and follow-up times are included here. Supplementing post-intervention assessments with evidence of effectiveness at one or more long-term follow-up assessment was preferred as it indicated sustained programme effects. Because there is often a lag between programme participation and programme effects for the types of outcomes that PSHE targets (most notably for sex education and substance use) it is useful to have fuller longitudinal data.

Outcomes with significant effects:
This section comprises a list of outcomes for which the programme evaluation suggests statistically significant programme effects. Distal outcomes, especially those relating to self-reported or actual behaviour and health, are prioritised over knowledge, skills or attitudes because these are representative of the ultimate aims for PSHE which include student wellbeing, achievement and safety. Effect sizes (where available) are reported as Cohen's *d*.

Outcomes with no significant effects:
Most programme evaluations include a number of pertinent variables and in most cases, significant effects are not found for all of them. It is important to note these so that the limitations of the programme are clear.

Source:
Usually, high quality programme evaluations are published in peer-reviewed journals. Information regarding where the evaluation report was published are available here.

Other studies:
Information about other publications, including additional evaluations of the programme, are listed here. Obviously, programmes with a larger evidence-base of effectiveness (in the form of multiple evaluations with positive outcomes) are more reliable and, as such, are preferred over programmes with a more limited evidence-base. In cases where more than one evaluation is available, the one that is most representative of the evidence-base or a UK delivery context, or of the highest available quality are described in detail.

Year 7

UK Resilience Programme

Aim of programme: Emotional Health and Wellbeing.
Programme is designed to prevent depression, reduce depressive symptoms and promote emotional resilience.

Content: Delivered by trained teachers. This aims to help young people understand their own emotions and to develop the tools to manage them. It helps them interpret better the attitudes of others and to become more optimistic and resilient. "UKRP develops skills in emotional awareness and intelligence; problem solving; assertiveness; peer relationships and decision-making. The programme helps students develop a more sophisticated understanding about their thinking style and how this impacts both on how they feel and what they do. The aim is accuracy; if students are able to think more accurately about the situation then they will be more likely to solve problems effectively, keep things in perspective and enhance their optimism and confidence." (From http://www.thegrid.org.uk/learning/hwb/ewb/goodpractice/ukprp/faqs/index.shtml)

Group programme is designed for: Has been used with both targeted and universal populations. For students between 8 and 15 years old. (It is currently being trialled in the UK with students in Year 7.)

Length/number of sessions: 18 sessions of approximately 60 minutes.
Total time commitment: 18 hours.

Cost: Materials included in training costs (see below).

Information about training:
Available from:
http://www.thegrid.org.uk/learning/hwb/ewb/goodpractice/ukprp/training/index.shtml
5 day training, £275 per day.
Contact Lucy Bailey for more information: lucy.bailey@hertscc.gov.uk

Summary of advantages and disadvantages:
The programme is well-established and has been evaluated a number of times. Though effects are not large, the programme has consistently demonstrated effects for depression.

Training and ongoing support is easily available as the programme is established in the UK and is growing in popularity. Teacher training requires a large commitment.

Where programme and further information can be obtained: http://www.thegrid.org.uk/learning/hwb/ewb/goodpractice/ukprp/index.shtml

Evidence

Sample: N = 6118, 4166 in control, 1952 in intervention condition. 22 UK schools participated in the study.

Changes made from available programme: N/A.

Comparator condition: Regular classroom activities.

Follow-up times: Post-intervention, 1-year follow-up, 2-year follow-up.

Outcomes with significant effects:

- Depression (at post)
- Absence rate (at post)
- Attainment in English (at post and 1-year follow-up)
- Attainment in maths (at 1-year follow-up)

Outcomes with no significant effects:

- Depression (at 1-year and 2-year follow-up)
- Anxiety (at all three time points)
- Student behaviour/conduct problems (at all three time points)
- Life Satisfaction (at all three time points)
- Absence rate (at 1-year follow-up)
- Attainment in English (at 2-year follow-up)
- Attainment in science (at all three time points)
- Attainment in maths (at post and 2-year follow-up)

Source:

Challen, A., Noden, P., West, A., & Machin, S. (2011). *UK Resilience Programme evaluation - Final Report*. London School of Economics and Political Science.

Other studies:

Brunwasser, S. M., J. E. Gillham and E. S. Kim, "A Meta-Analytic Review of the Penn Resiliency Program's Effect on Depressive Symptoms", *Journal of Consulting and Clinical Psychology*, 77(6), 1042-1054

Cardemil, E., Reivich, K., Beevers, C.G., Seligman, M.E.P., & James, J. (2007). The prevention of depressive symptoms in low-income, minority children: Two-year follow-up. *Behaviour Research and Therapy, 45*, 313-327.

Cardemil, E. V., Reivich, K. J., & Seligman, M.E.P. (2002). The prevention of depressive symptoms in low-income minority middle school students. *Prevention & Treatment, 5*, np.

Chaplin, T.M., Gillham, J.E., Reivich, K., Elkon, A.G.L., Samuels, B., Freres, D.R., Winder, B., & Seligman, M.E.P. (2006). Depression prevention for early adolescent girls: A pilot study of all-girls verses co-ed groups. *Journal of Early Adolescence, 26,* 110-126.

Cutuli, J.J. (2004). Preventing externalizing symptoms and related features in adolescence. Unpublished honors thesis, University of Pennsylvania, Philadelphia, PA.

Cutuli, J. J., Chaplin, T. M., Gillham, J. E., Reivich, K., & Seligman, M.E.P. (2007). Preventing externalizing symptoms and related features in adolescents. Manuscript in preparation.

Cutuli, J. J., Chaplin, T. M., Gillham, J. E., Reivich, K .J., & Seligman, M. E. P. (2006). Preventing co-occurring depression symptoms in adolescents with conduct problems: The Penn Resiliency Program. *New York Academy of Sciences, 1094* , 282-286.

Gillham, J. E. (1994). Preventing depressive symptoms in school children. Unpublished doctoral dissertation, University of Pennsylvania, Philadelphia.

Gillham, J. E., Hamilton, J., Freres, D. R., Patton, K., & Gallop, R. (2006). Preventing depression among early adolescents in the primary care setting: A randomized controlled study of the Penn Resiliency Program. *Journal of Abnormal Child Psychology, 34*, 203-219.

Gillham, J. E., & Reivich, K. J. (1999). Prevention of depressive symptoms in school children: A research update. *Psychological Science, 10,* 461-462.

Gillham, J. E., Reivich, K. J., Freres, D. R., Chaplin, T. M., Shatté, A. J., Samuels, B., Elkon, A. G. L., Litzinger, S., Lascher, M., Gallop, R., & Seligman, M. E. P. (2007). School-based prevention of depressive symptoms: A randomized controlled study of the effectiveness and specificity of the Penn Resiliency Program. *Journal of Consulting and Clinical Psychology, 75,* 9-19.

Gillham, J. E., Reivich, K. J., Freres, D. R., Lascher, M., Litzinger, S., Shatté, A., & Seligman, M. E. P. (2006). School-based prevention of depression and anxiety symptoms in early adolescence: A pilot of a parent intervention component. *School Psychology Quarterly, 21,* 323-348.

Gillham, J. E., Reivich, K. J., Jaycox, L. H., & Seligman, M. E. P. (1995). Prevention of depressive symptoms in schoolchildren: Two-year follow- up. *Psychological Science, 6,* 343-351.

Jaycox, L. H., Reivich, K. J., Gillham, J., & Seligman, M. E. P. (1994). Prevention of depressive symptoms in school children. *Behaviour Research & Therapy, 32*, 801-816.

Miller, J. B. (1999). The effect of a cognitive-behavioral group intervention on depressive symptoms in an incarcerated adolescent delinquent population (juvenile delinquents). Unpublished doctoral dissertation, Wright Institute Graduate School of Psychology, Berkeley.

Pattison, C., & Lynd-Stevenson, R. M. (2001). The prevention of depressive symptoms in children: The immediate and long-term outcomes of a school based program. *Behaviour Change, 18,* 92-102.

Quayle, D., Dziurawiec, S., Roberts, C., Kane, R., & Ebsworthy, G. (2001). The effect of an optimism and lifeskills program on depressive symptoms in preadolescence. *Behaviour Change, 18,* 194-203.

Reivich, K. J. (1996). *The prevention of depressive symptoms in adolescents.* Unpublished doctoral dissertation, University of Pennsylvania, Philadelphia.

Roberts, C., Kane, R., Bishop, B., Matthews, H. & Thompson, H. (2004). The prevention of depressive symptoms in rural children: A follow-up study. *International Journal of Mental Health Promotion, 6,* 4-16.

Roberts, C., Kane, R., Thomson, H., Bishop, B., & Hart, B. (2003). The prevention of depressive symptoms in rural school children: A randomized controlled trial. *Journal of Consulting and Clinical Psychology, 71,* 622-628.

Shatté, A. J. (1997). Prevention of depressive symptoms in adolescents: Issues of dissemination and mechanisms of change. Unpublished doctoral dissertation, University of Pennsylvania, Philadelphia.

Yu, D.L., & Seligman, M.E.P. (2002). Preventing depressive symptoms in Chinese children. *Prevention & Treatment, 5,* np.

Zubernis, L. S., Cassidy, K. W., Gillham, J. E., Reivich, K. J., & Jaycox, L. H. (1999). Prevention of depressive symptoms in preadolescent children of divorce. *Journal of Divorce and Remarriage, 30,* 11-36.

Botvin's Life Skills Training

Aim of programme: Safety Education and Drugs, Alcohol and Tobacco Education.
This addresses not only substance abuse but also school violence and bullying, using a common set of skills and values.

Content: Students are taught a number of skills for problem-solving and decision-making, including understanding and resisting media influences, effective communication, managing anxiety and stressful situations, relationship skills and self-assertion. This is delivered through group discussions, rehearsals and re-enactments and modelling. The programme also delivers specific information about the prevalence and danger of substance abuse and violence.

Group programme is designed for: Universal populations, aged 11-15.

Length/number of sessions:
Programme is available for one year (15 lessons), or with two years of "booster sessions" (Year 2: 10 lessons, Year 3: 5 lessons). Lessons last between 30 and 45 minutes.
Total time commitment: One year: 12 hours; Three years: 22.5 hours.

Cost: $625 per 30 students.

Information about training: $235 + training material costs, one day, available online.

Summary of advantages and disadvantages:
The programme is one of the most evaluated life skills programmes in the world. The breadth of content and the fact that it has demonstrable effectiveness for in a variety of domains (most notably, substance use and violence) makes it particularly time-effective. It may be prohibitively expensive for some schools. The programme is based in the USA and therefore the programme may need some alteration for British schools. Also, ongoing support may not be easily available.

Where programme and further information can be obtained: http://www.lifeskillstraining.com/

Evidence (for violence/conflict resolution)

Sample: N = 4858, 6th graders in New York schools. Sample is multiracial and largely economically deprived (55% received free school lunches). Schools were randomly assigned to control and intervention conditions.

Changes made from available programme: Only one year of programming was delivered.

Comparator condition: Regular health classes.

Follow-up times: 3 months after intervention.

Outcomes with significant effects:
- Physical aggression (in past month; .38)
- Fighting (in past year; .36)
- Delinquency (in past year; .34)
- Verbal aggression (in past month for high frequency group: top-quartile; .38)

Outcomes with no significant effects:
- Verbal aggression (in past month for non-high-frequency group)

Source:
Botvin, G. J., Griffin, K. W., & Nichols, T. D. (2006). Preventing youth violence and delinquency through a universal school-based prevention approach. *Prevention Science, 7*, 403-408.

Evidence (for substance use)

Sample: N = 847 (36 rural schools) 7th graders in a Midwestern State (USA). Random allocation by school.

Changes made from available programme: One year version, plus 5 session booster in 8th grade.

Comparator condition: Minimal contact condition.

Follow-up times: Post-intervention, one-year follow-up.

Outcomes with significant effects:
- Slowed the rate of increase in substance initiation
- Slowed the rate of decrease in refusal intentions

Outcomes with no significant effects:
- The rate of decrease in negative outcome expectancies, (marginally significant)

Source:
Trudeau, L., Spoth, R., Lillehoj, C., Redmond, C., & Wickrama, K. A. S. (2003). Effects of a preventive intervention on adolescent substance use initiation, expectancies, and refusal intentions. *Prevention Science, 4*(2), 109-122.

Other studies:
Botvin, G. J., & Griffin, K. W. (2004). Life skills training: Empirical findings and future directions. *The Journal of Primary Prevention, 25*(2), 211-232.

Botvin, G. J., & Griffin, K. W. (2007). School-based programmes to prevent alcohol, tobacco and other drug use. *International Review of Psychiatry, 19*(6), 607-615.

Botvin, G. J., Griffin, K. W., Diaz, T., & Ifill-Williams, M. (2001). Drug abuse prevention among minority adolescents: Posttest and one-year follow-up of a school-based preventive intervention. *Prevention Science, 2*(1), 1-13.

Epstein, J. A., Bang, H., & Botvin, G. J. (2007). Which psychosocial factors moderate or directly affect substance use among inner-city adolescents? *Addictive Behaviors, 32*, 700-713.

Griffin, K. W., & Botvin, G. J. (2010). Evidence-based interventions for preventing substance use disorders in adolescents. *Child and Adolescent Psychiatric Clinics of North America, 19*, 505-526.

Scheier, L. M., Botvin, G. J., & Griffin, K. W. (2001). Preventive Intervention Effects on Developmental Progression in Drug Use: Structural Equation Modeling Analyses Using Longitudinal Data. *Prevention Science, 2*(2), 91-112.

Vicary, J. R., Henry, K. L., Bechtel, L. J., Swisher, J. D., Smith, E. A., Wylie, R., et al. (2004). Life Skills Training effects for high and low risk rural junior high school females. *The Journal of Primary Prevention, 25*(4), 399-416.

Year 8

Parents Under Construction

Aim of programme: Sex and Relationships Education.
To teach students about child development and the needs of children as well as the parenting skills that they might use in the future when raising their own children.

Content: The programme starts with lessons about development and how positive mental health can be fostered from a young age. The next unit focuses on nurturing self-esteem in children and the influence that parents have on its development. The third unit focuses on the skills needed to raise children effectively including different parenting and discipline techniques and communication skills. Lastly, information regarding how to solve problems and get help is delivered.

Group programme is designed for: Designed for students between the ages of 12 and 18.

Length/number of sessions: 14 sessions of between 45 and 60 minutes.
Total time commitment: 14 hours.

Cost: $125 for all necessary material.

Information about training: Fee includes training costs, however, any travel costs for the trainers will need to be reimbursed.

Summary of advantages and disadvantages:
This programme is one of the very few that delivers parenting skills to children and is designed for a universal population. The programme is relatively inexpensive, but receiving training might prove prohibitively expensive because travel costs will be incurred. The evaluation is weak is some ways (non-random assignation to conditions, small sample size) so more evidence of effectiveness is needed. Significant outcomes only relate to knowledge and attitudes.

Where programme and further information can be obtained: http://www.childbuilders.org/programs/pucAbout.html

Evidence

Sample: N = 199. Students were aged between 12 and 18 years and attended schools in Houston, USA. Teachers volunteered to deliver the programme and a control class from the same school was selected (non-random allocation).

Changes made from available programme: N/A.

Comparator condition: No intervention.

Follow-up times: Post-intervention.

Outcomes with significant effects:
- Knowledge of parenting
- Attitudes toward discipline and parenting practices (focusing on punishment and spoiling children)

Outcomes with no significant effects:
- Empathy
- Pro-social behaviour

Source:
Backscheider, A., & Hawkins, J. (2000). *Teaching children parenting skills: An interim evaluation of the primary prevention program 4-6 and 7-12 curricula at one year.* Houston: Houston advocates for mental health in children.

Other studies: N/A

Media Ready

Note: There are two programmes called "Media Ready" that are unaffiliated.

Aim of programme: Diet/Nutrition and Healthy Lifestyle.
The programme aims to develop a healthy sense of identity and body shape as well as prevent eating disorders. This is done through improved media literacy skills regarding media portrayals of body image-relevant messages.

Content: This programme aims to develop a healthy sense of identity, physical self-concept and body shape. This has important implications for the establishment of healthy eating behaviours and physical exercise, as well as the prevention of eating disorders. A key aim is improved media literacy skills regarding media portrayals of body-image. Students are taught to interpret these messages and gauge the extent to which they are realistic and apply to real life. This helps students understand the pressure placed on young people in regards to body image from the media and elsewhere.

Group programme is designed for: Targeted at all students between approx. age of 11 to 14.

Length/number of sessions: 8 sessions of 50 minutes each.
Total time commitment: 7 hours.

Cost: $495 (Aus) per school.

Information about training: Not available from programme developers.

Summary of advantages and disadvantages: The programme is original in targeting body image and weight concern through increased media literacy skills. It is easily available (materials can be downloaded online for a fee) and relatively inexpensive. No training is available from the programme developers.

Where programme and further information can be obtained: http://sparky.socsci.flinders.edu.au/researchonline/projects/5

Evidence

Sample: N = 540. Sample were grade 8 students (mean age = 13.62 years) at schools in Adelaide, Australia. Randomisation was at classroom level.

Changes made from available programme: Programme was delivered by lead researcher.

Comparator condition: Regular classes.

Follow-up times: Post-intervention, 6-month follow-up, and 30-month follow-up.

Outcomes with significant effects:

- Ineffectiveness (at post for girls; .26, and boys; .33)
- Shape and weight concern: (for girls at 30-month follow-up; .34)
- Shape and weight concern (for boys at 6-month follow-up; .35)
- Dieting (for boys at post; .30 and 6-month follow-up; .29)
- Body dissatisfaction (for boys at post; .30 and 6-month follow-up; .28)
- Self-esteem (for boys at post; .31)

Outcomes with no significant effects:

- Shape and weight concern (post, for girls at 6-month follow-up, for boys at 30-month follow-up)
- Dieting (for girls at post and 6-month follow-up, for boys and girls at 30-month follow-up)
- Body dissatisfaction (for girls at post and 6-month follow-up, for boys and girls at 30-month follow-up)
- Media internalization (all time points)
- Perceived pressure (all time points)
- Ineffectiveness (6- and 30-month follow-up)
- Depression (all time points)
- Self-esteem (for girls at post, for girls and boys at 6-month and 30-month follow-up,

Source:
Wilksch, S. M., & Wade, T. D. (2009). Reduction of shape and weight concern in young adolescents: A 30-month controlled evaluation of a media literacy program. *Journal of the American Academy of Child and Adolescent Psychiatry, 48*(6), 652-661.

Other studies:
Wilksch, S. M., Tiggemann, M., & Wade, T. D. (2006). Impact of interactive school-based media literacy lessons for reducing internalization of media ideals in young adolescent girls and boys. *International Journal of Eating Disorders, 39*(5), 385-393.

Media Ready

Note: There are two programmes called "Media Ready" that are unaffiliated.

Aim of programme: Drugs, Alcohol and Tobacco Education.
Encourage healthy cognitions about abstinence from alcohol and tobacco use.
Enhance students' ability to apply critical thinking skills to interpreting media messages, in general, and alcohol and tobacco media messages, in particular.
Delay or prevent the onset of underage alcohol and tobacco use.

Content: "The first part of the program (i.e., lessons 1 to 4) is designed to reduce perceptions of the realism of and similarity to advertising media messages. Students engage in discovery activities where they learn and practice applying key questions to analyze and evaluate media messages found in advertisements for a wide range of products (e.g., toys, shoes, perfumes, cars). The key questions taught in the program include: 1) Is the message positive or negative?, 2) Who paid for it?, 3) Who is the target? 4) What is the implied message?, 5)

What was left out?, 6) Do I like this message?, and 7) If I don't like the message, what can I do about it?. Students also analyze literary devices and visual design techniques that are frequently used in advertising to attract and influence viewers to desire, purchase, or use a product. Understanding these methods of persuasion is designed to increase analysis skills regarding the realism of media messages." (Kupersmidt, et al., in press, p. 11-12). Delivered by teachers.

Group programme is designed for: Designed for a universal population of students aged between 11 and 14.

Length/number of sessions: 10 sessions of 45 minutes each.
Total time commitment: 8 hours.

Cost: $105 (US) for all materials (or $125 to include transparencies)

Information about training: One day training available (contact for pricing).

Summary of advantages and disadvantages: The programme takes a novel approach to substance use prevention. It is one of the few programmes that is demonstrably effective in improving media literacy skills and also appears effective in altering substance use behaviours. However, the evidence-base is still fairly limited and further larger-scale evaluations are necessary. Training is run out of the USA which may make it difficult to arrange (though web-based training and certification are under development).

Where programme and further information can be obtained: http://www.irtinc.us/products/mediaready/

Evidence

Sample: N = 412. Students were in grades 6 to 8 at schools in North Carolina, USA. Condition was assigned randomly by school.

Changes made from available programme: N/A.

Comparator condition: No intervention.

Follow-up times: Post-intervention.

Outcomes with significant effects:
- Intent to use alcohol (for boys; .23)
- Intent to use tobacco (.35)
- Reduction in the perceived realism of media portrayals (.07)
- Increase in media deconstruction skills (.36)

Outcomes with no significant effects:
- Intent to use alcohol (for girls)
- Reduction in perceived similarity between media portrayals and personal experience

Source:
Kupersmidt, J. B., Scull, T. M., & Benson, J. W. (in press). Improving media message interpretation processing skills to promote healthy decision making about substance use: The effects of the middle school media ready curriculum. *Journal of Health Communication.*

Other studies: N/A.

Year 9

FRIENDS For Life

Aim of programme: Emotional Health and Wellbeing.
FRIENDS for Life helps children and teenagers cope with feelings of fear, worry, and depression by building resilience and self-esteem and teaching cognitive and emotional skills

Content: FRIENDS is designed to be delivered by classroom teachers and contains a series of activities designed to teach students the relationship between thoughts and feelings, coping with worries, relaxation, developing positive self-regard and building positive relationships.

Group programme is designed for: FRIENDS is designed for (and has been implemented with) both universal and targeted populations. There are two versions of the programme which aim to teach broadly the same skills, each one suitable for a different age range; one is for students aged 7-13, the other for students aged 13 to 17.

Length/number of sessions: 10 sessions of approximately 40-50 minutes per session.
Total time commitment: 9 hours.

Cost: £25 for instruction manual, £5 per workbook.

Information about training: One day training session, available in the UK (contact for price).

Summary of advantages and disadvantages: The programme is well established in the UK (particularly Scotland) and has been evaluated in this country (Liddle & Macmillan, 2010). It has been evaluated a number of times in large-scale evaluations and as such, has a large evidence-base. The version for younger children has a stronger evidence-base, suggesting the programme might be best suited to only the youngest of secondary school students.

Where programme and further information can be obtained: http://www.interactive-connections.co.uk/

Evidence

Sample: N = 977, Students in grade 6 and 9 (age ranged from 9-16) in Brisbane, Australia. Condition was assigned randomly by school.

Changes made from available programme: N/A.

Comparator condition: No intervention.

Follow-up times: Post-intervention and 12-month follow-up.

Outcomes with significant effects:

- Anxiety scores (Reynolds Children's Manifest Anxiety Scale and Spence Children's Anxiety Scale at post; .33 and .23, respectively, and 12-month follow-up; .36 and .21)
- Depression (Children's Depression Inventory at 12-month follow-up; .22)
- Coping skills (less behavioural avoidance at post; .25 and 12-month follow-up; .53)

Outcomes with no significant effects:

- Depression (at post)

Source:

Lock, S., & Barrett, P. M. (2003). A longitudinal study of developmental difference in universal preventive intervention for child anxiety. *Behaviour Change, 20*(4), 183-199.

Other studies:

Barrett, P. M., Farrell, L. J., Ollendick, T. H., & Dadds, M. (2006). Long-term outcomes of an Australian universal prevention trial of anxiety and depression symptoms in children and youth: An evaluation of the Friends program. *Journal of Clinical Child & Adolescent Psychology, 35*(3), 403-411.

Barrett, P.M., Lock, S., & Farrell, L. (2005). Developmental differences in universal preventive intervention for child anxiety. *Clinical Child Psychology and Psychiatry, 10*(4), 539–555.

Barrett, P. M., & Turner, C. M. (2001). Prevention of anxiety symptoms in primary school children: Preliminary results from a universal trial. *British Journal of Clinical Psychology, 40*, 399–410.

Liddle, I., & Macmillan, S. (2010). Evaluating the FRIENDS programme in a Scottish setting. *Educational Psychology in Practice: theory, research and practice in educational psychology, 26*(1), 53 - 67.

Lowry-Webster, H. M., Barrett, P. M., & Dadds, M. R. (2001). A universal prevention trial of anxiety and depressive symptomatology in childhood: Preliminary data from an Australian study. *Behaviour Change, 18*, 36–50.

Lowry-Webster, H. M., Barrett, P., & Lock, S. (2003). A universal prevention trial of anxiety symptomatology during childhood: Results at one-year follow-up. *Behaviour Change, 20*(1), 25–43.

Stopa, J. E., Barrett, P. M., & Golingi, F. (2010). The prevention of childhood anxiety in socioeconomically disadvantaged communities: A universal school-based trial. *Advances in School Mental Health Promotion, 3*(4), 5-24.

The Science of Mental Illness

Aim of programme: Emotional Health and Wellbeing.

The programme aims to increase awareness and understanding of mental illness, reduce stigma and increase help-seeking behaviour.

Content: The content is online but requires teacher direction. The programme introduces the key concepts of mental illnesses and describes their course, effects and treatment. The programme accentuates the biological basis of mental illnesses. Activities are designed to increase knowledge of mental disorders and understanding of people with disabilities and illnesses. Illnesses covered include depression, schizophrenia, attention deficit hyperactivity disorder (ADHD), autism, and obsessive-compulsive disorder.

Group programme is designed for: The programme targets all students between 11 and 14.

Length/number of sessions: 6 sessions of between 45 and 50 minutes each.
Total time commitment: 5 hours.

Cost: Free.

Information about training: Training materials are available online.

Summary of advantages and disadvantages:
The programme is distinct in approaching the topic of mental health from a scientific perspective and covers a wide range of disorders. The programme is free and easily accessible, though no formal training is available. The evaluation of the programme is quite weak. (In particular, no control group was used.)

Where programme and further information can be obtained: http://science.education.nih.gov/supplements/nih5/mental/default.htm

Evidence

Sample: N = 1566. Students were in Grade 6, 7 or 8 in schools throughout the USA.

Changes made from available programme: N/A.

Comparator condition: N/A. The evaluation compared pre-intervention scores to post-evaluation scores.

Follow-up times: Post-intervention.

Outcomes with significant effects:
- Mental illness knowledge (1.22)
- Attitudes towards mental illness (stigmatization and willingness to seek help; .16)

Outcomes with no significant effects:
None.

Source:
Watson, A. C., Otey, E., Westbrook, A. L., Gardner, A. L., Lamb, T. A., Corrigan, P. W., et al. (2004). Changing middle schoolers' attitudes about mental illness through education. *Schizophrenia Bulletin, 30*(3), 563-572.

Other studies: N/A

Safer Choices

Aim of programme: Sex and Relationships Education.
To reduce sexual risk behaviors and increase protective behaviors in preventing HIV, other STDs, and pregnancy among high school students.

Content: The programme, delivered by usual class teachers, provides students with knowledge about sexual norms, STDs, pregnancy and safe sex techniques. It aims to change attitudes towards unsafe sex and promote the benefits of delaying the onset of sexual behaviour. Also, refusal and negotiation skills in sexual situations are taught.

Group programme is designed for: Designed for students between the ages of 13 and 17.

Length/number of sessions: 10 sessions of one hour each per year over 2 years.
Total time commitment: 20 hours.

Cost: $189.95 (US) for complete programme.

Information about training: One or two day training available (trainers based in the US); cost unspecified, contact: training@etr.org

Summary of advantages and disadvantages:
The programme has been evaluated with a number of outcomes which gives a clear impression of where it is effective. The content, being developed, evaluated and distributed by an American institution, may not be entirely suitable to British schools without some alterations. Training may also be difficult and expensive to obtain.

Where programme and further information can be obtained: http://pub.etr.org/ProductDetails.aspx?id=400000&itemno=H556

Evidence

Sample: N = 3869 (3058 at 31 month follow-up). Grade 9 students in urban schools in California and Texas. School were matched based on socio-demographic characteristics and randomly assigned to control and intervention conditions.

Changes made from available programme: Evaluated programme also included whole school components such as the formation of a school health promotion council, staff development, parent education and community linkages.

Comparator condition: Regular class content.

Follow-up times: After first year of intervention, post-intervention and 12-month follow-up.

Outcomes with significant effects:

1 denotes after first year of intervention, 2 denotes post-intervention, 3 denotes 12-month follow-up.

- Frequency of intercourse without a condom in last 3 months (at 1 and 3)
- Number of sexual partners without a condom in the last 3 months (at 2 and 3)
- Use of condoms at last intercourse (at 1 and 3)
- Use of protection against pregnancy at last intercourse (at 1 and 3)
- HIV knowledge (at 1, 2 and 3)
- Other STD knowledge (at 1, 2 and 3)
- Attitudes towards Condoms (at 1, 2 and 3)
- Normative beliefs about condoms (at 3)
- Self efficacy: condom use (at 1, 2 and 3)
- Barriers to condom use (at 1, 2 and 3)
- Risk perceptions: HIV (at 1, 2 and 3)
- Risk perceptions: Other STDs (at 1, 2 and 3)
- Communication with parents (at 1 and 2)

Outcomes with no significant effects:

- Sexual initiation (at 1, 2 and 3)
- Frequency of intercourse without a condom in last 3 months (at 2)
- Number of sexual partners without a condom in the last 3 months (at 1)
- Use of condoms at first intercourse (at 1, 2 and 3)
- Use of condoms at last intercourse (at 2)
- Use of protection against pregnancy at last intercourse (at 2)
- Number of times had sexual intercourse in last 3 months (at 1, 2 and 3)
- Number of sex partners in last 3 months (at 1, 2 and 3)
- Use of alcohol and other drugs before sex in last 3 months (at 1, 2 and 3)
- Tested for HIV (at 1, 2 and 3)
- Tested for other STDs (at 1, 2 and 3)
- Attitudes towards sexual intercourse (at 1, 2 and 3)
- Normative beliefs about sexual intercourse (at 1, 2 and 3)
- Normative beliefs about Condoms (at 3)
- Self efficacy: refusing sex (at 1, 2 and 3)
- Self efficacy: communication (at 1, 2 and 3)
- Communication with parents (at 3)

Source:

Coyle, K., Basen-Engquist, K., Kirby, D., Parcel, G., Banspach, S., Collins, J., et al. (2001). Safer choices: Reducing teen pregnancy, HIV, and STDs. *Public health reports, 116 Suppl. 1*, 82-93.

Other studies:

Coyle K., Basen E. K., Kirby D, et al. (1999) Short-term impact of Safer Choices: A multicomponent, school-based HIV, other STD, and pregnancy prevention program. *Journal of School Health, 69*(5), 181-88.

Kirby, D., Baumler, E., Coyle, K., Basen-Enquist, K., Parcel, G., Harrist, R., et al. (2004). The ‘‘Safer Choices’’ intervention: Its impact on the sexual behaviors of different subgroups of high school students. *Journal of Adolescent Health, 35,* 442–452.

SHAHRP

Aim of programme: Drugs, Alcohol and Tobacco Education.
The programme aims to reduce alcohol-related harm. This includes health problems, safety and good decision-making.

Content: The programme teaches the skills to identify situations in which alcohol-related risks may arise, how to avoid them and how to deal with risky situations. This includes decision-making skills, assertiveness training and alcohol-specific information.

Group programme is designed for: Targeted at students between the ages of 12 (before most students have begun to use alcohol) and 16.

Length/number of sessions: 6 lessons in the first year of implementation followed by 4 lessons in the next year. Lessons are an hour long.
Total time commitment: 10 hours.

Cost: Materials available free.

Information about training: Training available in the UK (contact for more information, including price).

Summary of advantages and disadvantages:
The programme has strong evidence of effectiveness for behavioural outcomes. The programme is available in the UK and has been implemented and evaluated there. The narrow focus on alcohol as opposed to other substances such as drugs and smoking require that other programmes focusing on these issues also be included elsewhere in the curriculum.

Where programme and further information can be obtained:
Materials (Australian version) available:
http://ndri.curtin.edu.au/research/shahrp/index.cfm
For information about British version and training contact Michael McKay at:
teejaymck@hotmail.com

Evidence

Sample: N = 2349. 29 schools within the greater Belfast Area (Northern Ireland). Students were in year 10 and 11.

Changes made from available programme: N/A.

Comparator condition:
Two intervention conditions: SHAHRP delivered by teachers; SHAHRP delivered by outside professionals. Control condition: Normal Northern Irish alcohol education.

Follow-up times: 12, 24 and 36 months after baseline.

Outcomes with significant effects: *(Comparing teacher-delivered to no-intervention condition across 36-month period)*

- Alcohol-related knowledge

- Safe attitudes towards alcohol
- Harms associated with own alcohol use
- Harms associated with other people's use of alcohol
- Quantity of alcohol consumed at last drinking episode

Outcomes with no significant effects:
None.

Source:
McKay, M. T., McBride, N. T., Cole, J. C., & Sumnall, H. R. (2011). *Reducing the harm from adolescent alcohol consumption: Results from an adapted version of SHAHRP in Northern Ireland.* Manuscript submitted for publication.

Other studies:
Meuleners, L., M. Phillips, et al. (2003). Early unsupervised drinking--reducing the risks. The School Health and Alcohol Harm Reduction Project. *Drug and Alcohol Review*. 22, 263-276.

McBride, N., Farringdon, F., Midford, R., Meuleners, L., & Phillips, M. (2004). Harm minimization in school drug education: Final results of the School Health and Alcohol Harm Reduction Project (SHAHRP). *Addiction, 99*(3), 278-291.

McBride, N., Midford, R., Farringdon, F., & Phillips, M. (2000). Early results from a school alcohol harm minimization study: The School Health and Alcohol Harm Reduction project. *Addiction, 95*(7), 1021-1042.

Year 10

MoodGym:

Aim of programme: Emotional Health and Wellbeing.
The project is designed to reduce and prevent anxiety and depression.

Content: This is a totally computer-based programme that promotes resilience. It is designed to reduce anxiety and depression by increasing emotional awareness and skills to manage emotions effectively. These skills include identifying biased and unhelpful thought patterns and altering them to be more accurate and productive. The programme explores the effect of negative and biased thought patterns on emotions. Students are encouraged to consider situations that give rise to negative thoughts and feelings and how they can be handled effectively. Finally, the importance of relationships to emotional health is discussed as well as skills for coping with relationship breakdowns and other problems.

Group programme is designed for: The programme has been used for both targeted and universal populations. It is designed for people aged 12 to 17.

Length/number of sessions: 5 sessions of approximately 45 minutes each.
Total time commitment: 4 hours.

Cost: Free.

Information about training: None needed because programme is delivered on-line.

Summary of advantages and disadvantages:
The delivery model helps to insure implementation quality (provided sessions are completed as instructed). Also, it means that training is unnecessary. This saves both time and money. The programme itself can be run in classrooms for free. The programme appears more effective for males, though one study (O'Kearney, Kang, Christensen, & Griffiths, 2009) suggests it is effective for female depression levels as well. It has only been trialled twice (only once with a relatively large sample size) and has not been followed-up long-term.

Where programme and further information can be obtained: http://moodgym.anu.edu.au/welcome

Evidence

Sample: N = 1477. Sample population was between 12 and 17 years old (mean age = 14.56). Students were at schools in Australia. Schools were matched according to type (public or private) and location (metropolitan or rural) and randomly assigned to control and intervention conditions.

Changes made from available programme:
Programme components were made available as the class progressed (rather than being entirely at students' own pace).

Comparator condition: Wait-list control condition (no intervention).

Follow-up times: Post-intervention, 6-month follow-up.

Outcomes with significant effects:
- Anxiety (post; .15, and 6-month follow-up; .25)
- Depression (for males at post; .43, and 6-month follow-up)

Outcomes with no significant effects:
- Depression scores (for females)

Source:
Calear, A. L., Christensen, H., Mackinnon, A., Griffiths, K. M., & O'Kearney, R. (2009). The YouthMood Project: A cluster randomized controlled trial of an online cognitive behavioral program with adolescents. *Journal of Consulting and Clinical Psychology, 77*(6), 1021-1032.

Other studies:
O'Kearney, R., Kang, K., Christensen, H., & Griffiths, K. (2009). A controlled trial of a school-based Internet program for reducing depressive symptoms in adolescent girls. *Depression and Anxiety, 26*(1), 65-72.

Relationship Smarts

Aim of programme: Sex and Relationships Education.

To build the skills and knowledge necessary for making good relationship choices. (Mostly dealing with romantic relationships.)

Content: Initial sessions deal with developing an understanding of students' personal identities, what they value in a relationship and the importance of maturity in relationships. This is followed by lessons about the indicators of healthy (and unhealthy) relationships as well as strategies for establishing and developing healthy relationships. The programme also focuses on the development of communication skills. Finally, the programme deals with issues that students may be faced with in the future such as marriage and child-rearing.

Group programme is designed for: Universal population, for ages 14-18.

Length/number of sessions: 13 sessions of 1 hour each.
Total time commitment: 13 hours.

Cost: $335 (for all necessary materials and training manual).

Information about training: Only training manual available.

Summary of advantages and disadvantages:
The programme is one of the few that teaches social skills with a focus on romantic relationships. This makes it unique, but also makes the breadth of focus quite limited. No training is available which might limit effectiveness. It has a very small evidence base and the outcomes for which it has been demonstrated to be effective all relate to knowledge and attitudes rather than behavioural or health outcomes.

Where programme and further information can be obtained: http://www.dibbleinstitute.org/?page_id=495

Evidence

Sample: N= 1824. High schools students in Alabama, USA (ages not provided). Ramdomly allocated by school.

Changes made from available programme: N/A.

Comparator condition: No intervention.

Follow-up times: Post-intervention and 1- and 2-year follow-up.

Outcomes with significant effects:
- Faulty/inaccurate relationship beliefs:
    - One and only: the notion that there is only one "ideal mate" exists for each person
    - Love is enough: the idea that love is sufficient to sustain a relationship and will override any other issues or problems
    - Cohabitation: the belief that living together before marriage leads to a greater likelihood of a stable marriage
- Beliefs about the importance of a supportive partner
- Interest in pursuing future relationships education/counselling

Outcomes with no significant effects:

- Perceived conflict management ability
- Verbal aggression (for those currently in a relationship)

Source:
Kerpelman, J. L., Pittman, J. F., Adler-Baeder, F., Eryigit, S., & Paulk, A. (2009). Evaluation of a statewide youth-focused relationships education curriculum. *Journal of Adolescence*, *32*(6), 1359-1370.

Other studies: N/A

Other Relevant Programmes

Climate Schools

Aim of programme: Drugs, Alcohol and Tobacco Education.
The programme targets harm-minimisation regarding alcohol and cannabis using a "social influence approach".

Content: The programme targets harm-minimisation in a number of ways. Students are taught about relevant laws, norms, myths and guidance in regards to substance use. The potential consequences of substance use are also covered. Students are encouraged to recognise sources of pressure to engage in substance use and strategies for resisting this pressure. This requires that students improve their decision making skills and social skills. Reasons to abstain or reduce substance use and alternative activities are discussed. Finally, students are taught the ways in which they can seek help if needed.

Group programme is designed for: A universal programme for students in Year 6-10 (approx. ages 12-15).

Length/number of sessions: Two modules: Alcohol and cannabis, each six lessons at 40 minutes per lesson.
Total time commitment: 8 hours.

Cost: Contact for information.

Information about training: A training manual is provided, but no other training is required (as core content is delivered online).

Summary of advantages and disadvantages: The programme has been thoroughly evaluated and is demonstrably effective. The online delivery format makes the programme relatively easy to implement with little training required. Due to the format, the programme cannot be easily adapted to reflect local statistics, concerns and information. It is currently being trialled in London.

Where programme and further information can be obtained: http://www.climateschools.com/

Evidence

Sample: N = 764. Year 8 students from 10 high schools in Sydney, Australia (mean age = 13.08).

Changes made from available programme: N/A

Comparator condition: Usual health classes.

Follow-up times: Post-intervention, 6-month follow-up, 12-month follow-up.

Outcomes with significant effects:
- Alcohol knowledge (post, 6-month follow-up, 12-month follow-up)
- Average weekly alcohol consumption (6-month follow-up, 12-month follow-up)
- Frequency of drinking to excess on a single occasion (12-month follow-up)
- Cannabis knowledge (post, 6-month follow-up, 12-month follow-up)
- Frequency of cannabis use (6-month follow-up)

Outcomes with no significant effects:
- Average weekly alcohol consumption (post)
- Frequency of drinking to excess on a single occasion (post, 6-month follow-up)
- Alcohol harms (post, 6-month follow-up, 12-month follow-up)
- Positive alcohol-related expectancies (post, 6-month follow-up, 12-month follow-up)
- Frequency of cannabis use (post, 12-month follow-up)
- Cannabis harm (post, 6-month follow-up, 12-month follow-up)
- Positive attitudes towards cannabis (post, 6-month follow-up, 12-month follow-up)

Source:
Newton, N. C., Teesson, M., Vogl, L. E., & Andrews, G. (2010). Internet-based prevention for alcohol and cannabis use: Final results of the Climate Schools course. *Addiction, 105*, 749-759.

Other studies:
Newton, N. C., G. Andrews, et al. (2009). Delivering prevention for alcohol and cannabis using the internet: A cluster randomised controlled trial. *Preventive Medicine, 48*(6): 579-584.

Newton N. C., Vogl L. E., Teesson M., Andrews G. (2009) CLIMATE Schools: Alcohol module: Cross-validation of a school-based prevention programme for alcohol misuse. Australian & *New Zealand Journal of Psychiatry. 43*(3):201-7.

Vogl L. E., Teesson M., Andrews G., et al. (2009) A computerized harm minimization prevention program for alcohol misuse and related harms: randomized controlled trial. *Addiction, 104*(4):564-576.

Every body's Different

Aim of programme: Diet/Nutrition and Healthy Lifestyle.

The programme aims to improve body image by building general self-esteem. Ultimately, this aims have global impacts on personal identity as well as self-worth, anxiety and problematic eating and exercise patterns.

Content: The programme is designed to be delivered by classroom teachers. It includes techniques for dealing effectively with stress, building self-esteem and understanding and dealing with stereotypes in society. Additionally, a number of social skills and relationship skills are delivered. Also, the programme covers issues such as healthy eating and nutrition, healthy dieting and problematic eating patterns.

Group programme is designed for: The programme is intended for a universal population of students between the ages of 11 and 14.

Length/number of sessions: 9 lessons between 50 and 80 minutes.
Total time commitment: 12 hours.

Cost: $59.95 (Aus.) for all materials.

Information about training: Not available, though materials include teaching training resources.

Summary of advantages and disadvantages: The programme thoroughly targets issues surrounding maladaptive eating and exercise behaviours and negative body image. As such, it complements other programmes that teach healthy eating and physical exercise skills. The programme is inexpensive, but no implementation support is available. The evidence-base is small.

Where programme and further information can be obtained: https://shop.acer.edu.au/acer-shop/product/A1060BK

Evidence

Sample: N = 470. Students were between 11 and 14 years of age and attended schools in Sydney, Australia.

Changes made from available programme: N/A.

Comparator condition: Regularly scheduled personal development and health class.

Follow-up times: Post-intervention and 9 month follow-up.

Outcomes with significant effects:

- BMI from pre to 9 month follow-up, (increased in intervention, decreased in control group; due entirely to changes in normal weight females; not assessed at post)
- Drive for thinness (for all at post and at 9 month for high risk students: students in the lowest tertile of self-esteem and with the highest Trait Anxiety)
- Body dissatisfaction (for high-risk at post)
- Self-rated physical appearance (for girls at post)
- Perception of mother-rated physical appearance (for girls at post)

- Perception of father-rated physical appearance (for all at post and for females at 9 months)
- Importance to self-concept of physical appearance (at post and 9 months)
- Importance to self-concept of social acceptance (for high risk group at post)
- Importance to self-concept of athletic competence (for all at 9 months)
- Importance to self-concept of close friendships (for high-risk group at 9 months)

Outcomes with no significant effects:
- Drive for thinness (at 9 months for non-high-risk)
- Body dissatisfaction (for non-high-risk at post and for all at 9 months)
- Interoceptive awareness
- Global self-worth
- State anxiety
- Trait anxiety
- Depression
- Currently trying to lose weight
- Self-rated physical appearance (for boys at post and for all at 9 months)
- Perception of mother-rated physical appearance (for boys at post and for all at 9 months)
- Perception of father-rated physical appearance (for males at 9 months)
- Perception of other people-rated physical appearance
- Perception of the opposite sex-rated physical appearance
- Perception of best friend-rated physical appearance
- Importance to self-concept of social acceptance (for non-high-risk group at post and all at 9 months)
- Importance to self-concept of athletic competence (for all at post)
- Importance to self-concept of close friendships (for all at post and for non-high-risk groups at 9 months)

Source:
O'Dea, J. A., & Abraham, S. (2000). Improving the body image, eating attitudes, and behaviors of young male and female adolescents: A new educational approach that focuses on self-esteem. *International Journal of Eating Disorders, 28*(1), 43-57.

Other studies: N/A.

Planet Health

Aim of programme: Diet/Nutrition and Healthy Lifestyle.
To increase student awareness of the importance of proper nutrition and physical activity and how they can be achieved.

Content: The programme contains five key messages (from Planet Health Resource Book):
1) Be physically active every day.
2) Limit screen time (computer and television) to no more than two hours per day.
3) Eat five or more servings of fruits and vegetables.
4) Eat more whole grains, less added sugar.
5) Eat foods low in saturated fat and containing no trans fat.

Group programme is designed for: Universal programme aimed at students from the ages of 11 to 14.

Length/number of sessions: 32 sessions (16 in year 1, 16 in year 2), 45 minutes each. Total time commitment: 24 hours.

Cost: £39.95.

Information about training: Training materials provided, but no training sessions.

Summary of advantages and disadvantages:
The programme is very thorough and comprehensively targets nutrition and physical activity information. The programme is inexpensive and easily available but no training (beyond a training manual) or implementation support is available.

Where programme and further information can be obtained: http://www.planet-health.org/

Evidence

Sample: N = 1295. Students were in grades 6 and 7 at schools in Boston. Schools were matched based on socio-demographic characteristics and randomly assigned to control and intervention conditions.

Changes made from available programme: Teachers received training workshop (materials for which are included in programme).

Comparator condition: No intervention.

Follow-up times: Post-intervention.

Outcomes with significant effects:
- Obesity prevalence (for girls)
- Obesity remission (for girls)
- Television/video watching
- Fruit and vegetable intake (for girls)
- Total energy intake (for girls)

Outcomes with no significant effects:
- Obesity prevalence (for boys)
- Obesity incidence
- Obesity remission (for boys)
- Physical activity
- Total energy from fat
- Fruit and veg (for boys)
- Total energy intake (for boys)

Source:
Gortmaker, S. L., Peterson, K., Wiecha, J., Sobol, A. M., Dixit, S., Fox, M. K., et al. (1999). Reducing obesity via a school-based interdisciplinary intervention among youth: Planet Health. *Archives of Pediatrics & Adolescent Medicine, 153*(4), 409-418.

Other studies:
Austin, S. B., Field, A. E., Wiecha, J., Peterson, K. E., & Gortmaker, S. L. (2005). The Impact of a school-based obesity prevention trial on disordered weight-control behaviors in early adolescent girls. *Archives of Pediatrics & Adolescent Medicine, 159*(3), 225-230.

Austin, S. B., Kim, J., Wiecha, J., Troped, P. J., Feldman, H. A., & Peterson, K. E. (2007). School-based overweight preventive intervention lowers incidence of disordered weight-control behaviors in early adolescent girls. *Archives of Pediatrics & Adolescent Medicine, 161*(9), 865-869.

SHARE

Aim of programme: Sex and Relationships Education.
The programme is intended to reduce unsafe sexual behaviours, reduce unwanted pregnancies and improve the quality of sexual relationships.

Content: Key messages include self-respect, respect for others and diversity. The programme teaches about sexual relationships and the advantages of delayed sexual activity. Also, information about effective protection and avoiding unsafe sexual situations is included.

Group programme is designed for: The programme is intended for students between the ages of 13 and 15.

Length/number of sessions: 22 lessons of an hour each, run over two years.
Total time commitment: 22 hours.

Cost: Free.

Information about training: 3 days training is recommended and is available for free in the UK (though trainer expenses may apply).

Summary of advantages and disadvantages:
The programme has an established presence in Britain and has been evaluated there. Full implementation support and training is available at little or no cost. The programme is mostly limited in effectiveness to increasing sexual health knowledge. It has no behavioural effects (at least compared to regular sex education) which is a serious shortcoming.

Where programme and further information can be obtained: Contact Shirley Windsor for more information: Shirley.windsor@nhs.net

Evidence

Sample: N = 8430. Students were between 13 and 15 years old and attended secondary schools in Lothian, Scotland. Schools were matched based on socio-economic status and randomly assigned to control and intervention conditions.

Changes made from available programme: N/A.

Comparator condition: Existing sex education.

Follow-up times: 6-month follow-up.

Outcomes with significant effects:
- Sexual health knowledge
- Regret at first intercourse (for men)

Outcomes with no significant effects:
- All sexual risk behaviours
- Unwanted pregnancies
- Regret at first intercourse (for women)
- Regret of first sexual intercourse with most recent partner
- Pressure at first sexual intercourse
- Pressure with most recent partner
- Enjoyment of last sexual experience

Source:
Wight, D., Raab, G. M., Henderson, M., Abraham, C., Buston, K., Hart, G., et al. (2002). Limits of teacher delivered sex education: Interim behavioural outcomes from randomised trial. *British Medical Journal, 324*, 1230-1233.

Other studies:
Henderson, M., Wight, D., Raab, G. M., Abraham, C., Parkes, A., Scott, S., et al. (2006). Impact of a theoretically based sex education programme (SHARE) delivered by teachers on NHS registered conceptions and terminations: Final results of cluster randomised trial. *British Medical Journal, 334*, 133-135.

Tucker, J. S., Fitzmaurice, A. E., Imamura, M., Penfold, S., Penney, G. C., Teijlingen, E. v., et al. (2006). The effect of the national demonstration project Healthy Respect on teenage sexual health behaviour. *The European Journal of Public Health, 17*(1), 33-41.

SOS Suicide Prevention Program

Aim of programme: Safety Education.
To reduce the incidence of suicide by increasing help-seeking behaviours and encouraging students to identify suicide risk-factors in themselves and others.

Content: The programme is designed to inform students as to typical signs of suicide and suicidal ideation so that those in need of help receive it. Also, the programme promotes adaptive attitudes and responses to depression and suicide-related behaviour. Further, there is

a self-screening process which helps indicate to students whether they are in need of additional help.

Group programme is designed for: Aimed at all students aged 14-18.

Length/number of sessions: 3 hours of programming (which could be delivered in one block or in classroom period sized blocks.
Total time commitment: 3 hours.

Cost: $300 (US) for all necessary materials.

Information about training: None available.

Summary of advantages and disadvantages:
The programme takes a unique approach to mental health by encouraging self-assessment. The programme is very brief which means that it may be time-effective. Only targeting suicide and depression (rather than other illnesses) means that it must be supplemented with other programmes to insure adequate mental health coverage. Lack of training for teachers is a possible disadvantage, especially considering the sensitive subject matter.

Where programme and further information can be obtained: http://www.mentalhealthscreening.org/highschool/sos/default.aspx

Evidence

Sample: N = 4133. Students were between 13 and 17 years of age and attended schools in Hartford, western Massachusetts and Columbus, USA. Population was ethnically and economically diverse. Sample was randomised by class.

Changes made from available programme: N/A

Comparator condition: General health or social studies classes.

Follow-up times: 3 months after intervention.

Outcomes with significant effects:
- Self reported suicide attempts
- Knowledge of depression and suicide
- Attitudes about depression and suicide

Outcomes with no significant effects:
- Suicidal ideation
- Help-seeking

Source:
Aseltine, R., James, A., Schilling, E., & Glanovsky, J. (2007). Evaluating the SOS suicide prevention program: a replication and extension. *BMC Public Health, 7*(1), 161.

Other studies:
Aseltine, R., & DeMartino, R. (2004). An outcome evaluation of the SOS Suicide Prevention Program. *American Journal of Public Health, 94*(3), 446-451.

Appendix 3

Proposal for Future Research

Evaluating an evidence-based approach to a life-skills and resilience curriculum in the school setting

Abstract:
The proposed research aims to evaluate a model curriculum for the evidence-based delivery of life-skills and resilience programmes. The curriculum will combine several established evidence-based programmes to form a comprehensive and intensive syllabus which will be trialed in British secondary school classrooms. In addition to assessing the overall effectiveness of the curriculum, the evaluation will focus on the role of increased resilience in mediating programme effects. To this end, we aim to directly assess self-reported experienced adversity, the behavioural and psychological responses it elicits and the outcomes resulting from adversity and how it is handled. In sum, this project will appraise the feasibility of a new model for the delivery of life-skills in schools which has the potential to improve the effectiveness of life-skills curricula. Additionally, it will lead to increased understanding of the role of resilience and adversity in the effectiveness of these programmes.

Background
A number of school-based programmes have been developed with the aim of reducing mental and physical illness and promoting health and wellbeing in adolescents. These include programmes targeted at preventing depression and anxiety, increasing social skills, coping skills and conflict management skills and reducing risk-taking behaviours in a number of domains. Though a number of these programmes are demonstrably effective, effect sizes are almost invariably small (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, in press; Ferguson, San Miguel, Kilburn Jr., & Sanchez, 2007; Stice, Shaw, Bohon, Marti, & Rohde, 2009). This is hardly surprising considering the duration of these programmes. Most consist of a handful of hours of teaching time, usually spread over no more than one year. Rarely do prevention programmes exceed ten or twenty hours of total curriculum time.

Arguably, all prevention programmes share the goal of providing the skills and knowledge necessary to prevent negative life events as well as deal with them effectively when they occur. Central to this aim is the concept of resilience. In the context of prevention programmes, resilience is understood as a set of protective factors that provide the capacity to prevent episodes of adversity and overcome the customary negative impact of life stressors and adversity (Coleman & Hagell, 2007). It has long been recognized that, though most children suffer adverse consequences of acute or prolonged periods of adversity in the form of behavioural and psychological maladjustment, a substantial proportion do not succumb to the ill-effects of such experience (Johnson, 1986). Early attempts to understand the personal characteristics which provided children with the capacity for resilience were followed by attempts to develop interventions which fostered resilience in children.

Several key programmes have emerged that purport to use a resilience framework in the prevention of depression and anxiety in children and adolescents such as Friends for Life (Barrett, 1998), the Resourceful Adolescent Program (Shochet et al., 2001), MoodGym (Calear, Christensen, Mackinnon, Griffiths, & O'Kearney, 2009) and, perhaps the best known and most thoroughly evaluated, the Penn Resiliency Program (Gillham, Reivich, & Jaycox, 2008), replicated in Britain under the name "UK Resilience Programme" (Challen, Noden, West, & Machin, 2009). Though these programmes differ substantially in terms of content, they share an ambition to reduce depression and/or anxiety at least partly through the promotion of coping and resilience skills. They also are comparatively effective with most evaluation studies finding small but significant effects for symptoms of depression and anxiety.

While the concept of resilience is applied broadly and explicitly in depression and anxiety prevention programmes, it is equally applicable for programmes in other domains. For example, programmes designed to promote mental health literacy do so by providing information about mental illnesses, symptoms, treatment and where to access help (e.g. Askell-Williams, Lawson, & Murray-Harvey, 2007; Watson et al., 2004). This provides a skill-set that can be applied to deal effectively with early or mild mental illnesses and prevent further deterioration. In short, mental health literacy promotes a domain-specific form of resilience. Another example of the applicability of resilience to prevention programmes is evident in sexual health focused programmes. These programmes aim to prevent sexual risk, and promote positive sexual health partly through fostering the skills to resist sexual pressure, understand and deal with the physical changes of puberty and to overcome relationship problems and breakdown among other forms of domain-specific adversity (e.g. Coyle et al., 2001; Hubbard, Giese, & Rainey, 1998). Once again, the concept of resilience is immediately applicable.

Our current work has focused on developing a model for comprehensive life skills training in secondary schools through the evidence-based provision of Personal, Social, Health and Economic education (PSHE) in British schools. We have identified the following topic areas, and evidence-based programmes focusing on them, which are critical to effective PSHE, all of which aim to teach broad or domain-related resilience:

1) Emotional Resilience and Coping
2) Social skills and managing conflict
3) Sex and relationship education
4) Media Literacy
5) Physical health and healthy body image
6) Alcohol and substance use
7) Parenting skills
8) Mental health literacy

<u>Proposal</u>

We plan to pilot a model curriculum in one or more schools using the year previous to curriculum implementation as a control cohort. The school will commit to providing approximately eighty hours of class time over two years. We plan to follow up the experimental group for two years after the completion of the curriculum. This means that both the experimental and control group will be tracked over four years. An important aspect of the project will be a process evaluation focusing on the development and implementation of the curriculum. Seeing as this project takes a novel approach to prevention programming, particularly in regards to the composition of the curriculum and the large number of

classroom hours it is essential to evaluate the feasibility of the project and how it can be improved when replicated in the future.

Outcome assessments would focus on the effectiveness of the curriculum, as well as the mediating role of adversity and resilience. In regards to the former, it is necessary to ensure that the aims of the programmes comprising the curriculum are being effectively met. Because the programmes have compatible aims, programme effects might be expected to be amplified. In other words, the whole of the curriculum will have effects greater than those expected from summing discrete programme effects. Due to these considerations, it is crucial to include measures traditionally used in the assessment of the types of programmes included such as those used in the original effectiveness trials of these programmes. These include measures of depression and anxiety, sexual health behaviours, substance use, social skills and bullying and violence. Such outcomes will indicate the overall effectiveness of the curriculum in regards to the health- and behaviour-related aims of the programmes and allow for comparisons of the effects with other programme evaluations.

The resilience model posits that prevention programmes increase adaptive capabilities in the face of adverse, risky and stressful events and circumstances and should shelter children from the negative ramifications of these events, which include psychological symptomatology such as increases in depression and anxiety, deteriorating relationship quality and physical illnesses (Dumont & Provost, 1999). Therefore, programme effects should be caused at least partly by preventing instances of adversity and diminishing the detrimental effects of adversity through increased resilience.

This tenet has not been directly tested. That is, programme evaluations have never directly assessed programme effects on behaviour and health following episodes of adversity. However, it is common for evaluations of resilience-based programmes to include measures that could serve as proxies for resilience in the face of adversity. For instance, in past trials, prospective or hypothetical behaviour in instances of adversity have been assessed to obtain a measure of coping skills (e.g. Challen et al., 2009; Lock & Barrett, 2003). Additionally, measured changes in attitudes between experimental and control groups in regards to, for example, risk behaviour, have been used as evidence that the programme has effectively minimized the risk of adversity and the consequences thereof (Patton et al., 2006).

Therefore, in addition to conventional effectiveness trial outcome measures we propose to focus on the mediating effects of increased resilience. Rather than related proxies or distal outcomes we aim to assess self-reported experienced adversity directly, as well as the behavioural and psychological responses it elicits and the outcomes resulting from adversity and how it is handled. More specifically, we are interested in the following between group differences:

1) <u>The amount and scale of adversity.</u> Since social skills and problem-solving techniques are key to prevention programming, it follows that this training would, to some extent, prevent stressful situations or lead to a reduction in the escalation of such events. Therefore, the absolute amount of adversity-related stress should differ between groups because of the preventative effects training has on adversity.
2) <u>Functioning and behaviour in response to adversity.</u> Resilience-training purports to provide the skills and knowledge to respond to adversity adaptively. This means that effective training will likely lead to different responses to stressors. Therefore, a primary research question targets whether involvement in resilience-based programmes changes behavioural responses to adversity.

3) Psychological and affective outcomes. If resilience encourages adaptive responses to adversity, this should also be reflected in mental health outcomes. For example, adaptive coping should result in less distress in response to stressful situations and circumstances of adversity being rated less unfavourably.
4) The type of adversity faced. Not all stressors are equal in magnitude. Additionally, they may differ qualitatively. For example, early research suggested that typical responses to parental divorce were aggression and disruptive behaviours, whereas a death or illness in the family tends to lead to withdrawal and anxiety (Felner, Ginter, Boike, & Cowen, 1981). Adversity can be categorized in a number of ways such as domain, locus of causality or acuteness. It is unclear whether resilience skills, as provided by the types of programmes in question are equally effective in preventing and mediating effects of adversity regardless of the nature of adversity

In sum, this assessment plan will allow for an evaluation of the main effects of the curriculum in line with conventional programme evaluations, as well as programme effects on resilience and finally, the mediating role of increased resilience on programme effects. This is a novel development. Though resilience is often theorized to mediate effects on outcomes such as psychological functioning, health and wellbeing, this has not been empirically examined within the context of a programme evaluation. Equally important and original, we intend to instigate a substantial and entirely evidence-based, comprehensive life-skills curriculum. This will exceed typical evidence-based programmes both in regards to the total quantity of teaching time and, because the curriculum will target a variety of issues complimentarily, has the capacity to be of greater quality above and beyond the effects of increased curriculum time. While the opportunity to tackle the research questions above is of sufficient theoretical interest to warrant the enactment of the proposed research, even more importantly, this research will point the way to a potentially better way of teaching life skills in schools and to the development of more effective prevention programmes.

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Appendix 4

Implementation Model including Costs and Training

Using tested programmes for secondary PSHE

Richard Layard, John Coleman and Dan Hale

Aim

Schools are about character and not only about competence. We want young people to learn how to live in ways which are satisfying for them and helpful to others. These "skills for life" include the ability to

- understand and manage your own emotions
- understand and help others
- develop loving sexual relationships
- become a responsible and effective parent
- understand mental illness
- avoid unhealthy behaviours.

Most of these skills are included in the existing national curriculum for Personal, Social and Health Education (PSHE). The problem is how to teach them. The previous government's SEAL programme is an attempt to point teachers in the right direction. But a recent scientific evaluation of secondary SEAL concludes that "it failed to impact significantly upon pupils' social and emotional skills, general mental health difficulties, pro-social behaviour or behaviour problems".[1] They conclude that the failure is due to not using a fully evidence-based approach, where well-defined and highly structured programmes have been scientifically evaluated and teachers trained to use them.

Such an approach is quite feasible. There are hundreds of programmes world-wide which address the skills we are concerned with, and which have been scientifically evaluated. Some were found to be ineffective (which is common), but others made a real difference to emotional wellbeing, behaviour and academic performance. So in this paper we show how secondary PSHE could be taught using only programmes which have been shown to be effective.

Each individual programme involves less than 20 hours, but the combined package will involve 120 hours. This could conveniently be taught over 4 years (Years 7, 8, 9 and 10), with 30 hours a year taught within a regular weekly PSHE slot. Our hope is that some schools would wish to pilot this package of programmes. We would arrange access to the programmes and the brief training of teachers to use them.

Although the programmes have each been evaluated on their own, for lessons to be learned from the pilot, we would hope to evaluate the schools' experience of using the package as a whole. If successful, we would expect the experience of the pilot schools to be copied rapidly across the country.

Contents of the Package

The package aims to cover all the standard topics listed in the national curriculum for Personal Wellbeing within PSHE. For our purpose, we gather these topics into three groups

- emotional and social wellbeing
- sex and relationships
- healthy lifestyle (including drugs, alcohol, tobacco and eating).

The following table shows how we propose covering these topics, using 10 different tailor-made programmes of proven effectiveness. The later programmes include elements of overlap and reinforcement of themes already introduced, but applied in a different context in a way that is appropriate at that age. This complementarity is an advantage because it brings out the key point – that how you behave will ultimately reflect what kind of person you want to be. So the central task is to develop a wholesome idea in every child about who they want to be. This is a central theme in every programme but its implications are developed in each programme in different, interesting and challenging ways. Whenever possible, the programme begins with "dos" rather than "don'ts", because this has a far better chance of reducing undesirable behaviour.[2]

	The package (hours)		
	Emotional and social wellbeing	**Sex and relationships education**	**Healthy living**
Year 7	The UK Resilience programme (18)	Life skills training (12)	
Year 8		Parents Under Construction (14)	Media Ready (15)
Year 9	Friends for Life (9) Science of Mental Illness (5)	Safer choices (10)	SHAHRP (6)
Year 10	Mood Gym (4)	Relationship smarts (13) Safer choices (10)	SHAHRP (4)

In the table the names in the boxes are the programmes, and Annex 1 gives a description of each of them and evidence of their effectiveness. In each year the courses on the right side of the table would follow those on the left. We believe that, taken together, these programmes will have a major impact on the young people exposed to them – unlike, quite possibly, much of what now goes on in PSHE.

The Centre for Economic Performance has considerable experience of this type of work, having successfully introduced into England the Resilience Programme, developed by Martin Seligman, the father of positive psychology at the University of Pennsylvania. This is now used in 60 schools in England. Some 500 teachers have been trained to use the

programme (5-10 days training) and 6,000 11-year olds are now benefitting from the programme. Our evaluation shows that on average young people who take the programme (especially those at greatest risk) have shown much reduced depression and better school attendance and academic performance. [3]

Logistics

Our aim would be to make the whole project as easy as possible for the schools. So we would organise access to the materials and the training for the teachers. The plan would be to focus on the cohort of young people beginning Year 7 in September 2011 (or 2012), and have them taken through this curriculum over the following four years. Ideally only half the children in the cohort in each school would take the programme, so that we could compare their progress with that of the other children.

Before the beginning of each year we would train the teachers on the programmes to be used in the following year. This could involve the following number of days training and estimated costs of training per school (see also Annex 2)

Year 7	8 days	£5,700
Year 8	3 days	£1,700
Year 9	3 ½ days	£2,100
Year 10	3 days	£1,500

There is also the issue of the licensing costs of using some of these programmes. It seems likely that any organisation funding activity on this scale would negotiate reductions in the standard stated charges. But, for the record, these are currently per school. (See also Annex 3.)

Year 7	£400
Year 8	£500
Year 9	£500
Year 10	£300

There is one important final issue of logistics. These programmes only work well if they are done in groups of 15, rather than 30 young people.

Training: days needed and cost per school

There are three ways of delivering training. In order of preference they are:

1) "Official" training sessions, organised by the programme developers
2) Online training sessions
3) "Bespoke" training sessions developed by an experienced PSHE trainer.

We propose to deliver the following. The costs per school have been calculated on the assumption of an average of three teachers per school.

Programme	**Type of training**	**Days**	**Cost (£ per school)**
Year 7			
UK Resilience Programme	Official	6	4275
Life Skills Training	Online	2	1435
Year 8			
Parents Under Construction	Bespoke	1	560
Media Ready (Body image)	Bespoke	1	560
Media Ready (Substances)	Bespoke	1	560
Year 9:			
Friends for Life	Official	1	800
Science of Mental Illness	Official	½	470
Safer Choices	Bespoke	1	375
SHAHRP	Official	1	470
Year 10:			
Mood Gym	None required	n/a	0
Relationship Smarts	Bespoke	1	560
Safer Choices	Bespoke	1	470
SHAHRP	Official	1	470

Costs of licensing per school

We assume that on average 100 students per school receive the programme. The figures of costs are maxima (see text)

	Cost (£)
Year 7	
UK Resilience Programme	0 (included in training)
Life Skills Training	429
Year 8:	
Parents Under Construction	77
Media Ready (Body image)	310
Media Ready (Substances)	62
Year 9:	
Friends for Life	476
Science of Mental Illness	0
Safer Choices	59
SHAHRP	0
Year 10:	
MoodGym	0
Relationship Smarts	227
Safer Choices	59
SHAHRP	0

Conclusion

There is clear evidence that young people are more disturbed than they were forty years ago.[4] They are subject to major pressures, and everyone of good will would wish to see them helped. But many forms of help seem to have little effect and may be unjustified in an over-crowded timetable. But the issue is too important to be left there. For evidence-based programmes of help do exist. It is in the interest of schools to use them for sufficient hours to make a real difference. We very much hope some schools will rise to the challenge.

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Appendix 5

USA Visit Report

The following is a summary of the major implications of the series of meetings that occurred in the US. As a starting point, it is worthwhile to restate the aims of the trip that were established prior to it and to review the list of people and events that were involved.

Aims of the trip:

11. Refine considerations of what effective programmes should comprise.

12. Seek help to identify components of successful programmes.

13. Learn about programmes that deserve consideration that have not yet been identified.

14. Highlight programmes which have been fully evaluated by experts in the USA with particular focus on those that might be appropriate for use in the UK.

15. Get up-to-date information about programme evaluations.

16. Identify obstacles and barriers to adequate evaluation of programmes.

17. Try to learn some of the important lessons from those who have carried out systematic reviews on programmes.

18. Get some tips about how to evaluate programmes, and what to look for in the data above and beyond what is presented in published articles.

19. Get pointers to other scientists who might help with these goals, maybe in other countries as well as in the USA, especially Australia and NZ.

20. Raise awareness of the project.

List of meetings:

As well as reiterating the aims of the trip, it is worth briefly reviewing the list of researchers that were visited during the trip. In addition, a number of unplanned meetings occurred through contacts at research centres or at the Middle School Consensus Conference organised by Mark Greenberg.

- Rutgers University:
    - Maurice Elias: Leader of the Social and Emotional Learning Lab, Rutgers, and is involved in the development and assessment of the Social Decision-Making Curriculum
    - Phil Brown: Head of the Center for Social and Character Development, Rutgers
- Ann Higgins D'Allesandro, Fordham University: Expert in moral development and involved in Community of Caring evaluation
- Gil Botvin and Kenneth Griffin, Weill Cornell Medical College, Cornell University: Developed Botvin's LST and have researched its effectiveness extensively

- Larry Aber, NYU: Assessment of Resolving Conflict Creatively programme and 4Rs programme
- CASEL: Authorities on Social and Emotional Learning, they have been involved in a number of SEL programme compendiums, meta-analyses, programme reviews and implementation support
    - John Payton
    - Roger Weissberg
    - Kay Ragozzino
    - Nicole Patterson
- Middle School Consensus Conference: Organised by Mark Greenberg to discuss the challenges and opportunities involved effective middle school SEL delivery. Along with Mark, I also met with Marc Brackett, the developer of RULER approach which is currently being trialled in Kent and Phil Leaf who is working on an intervention to prevent depression in middle school students (other contacts are discussed in the "Resources and Contacts" Section.

Meetings Summary:

The information that was gathered in the course of these meetings can be discussed under the following subheadings:

- The characteristics of successful programmes
- Implementation issues
- Programme evaluation
- Information about specific programmes and programmes to consider
- Resources and contacts

1. *The characteristics of successful programmes*

A main aim of the trip was to help identify the characteristics of successful interventions, and how those interventions have an impact upon the skills, attitudes and behaviours of students. A major focus of many of the discussions was what separates good programmes from ineffectual ones. Certainly, there are a variety of programmes that have been evaluated with varying degrees of success. While programmes certainly differ in a number of ways, presumably effective ones share similarities in terms of the active ingredient. An analogy which was suggested compared SEL programmes to brands. Though a great variety of brands exist for many products, the ingredients are similar. The question remains, what are the active ingredients to effective programmes?

Most researchers were hesitant to boil effective programmes down to one active ingredient and noted that when certain components of effective programmes are dropped, efficacy is compromised. Of course, there is necessarily a trade-off between programme costs (in terms of the time and resources necessary to deliver it) and the benefits. It is important that programmes be as succinct as possible, without omitting necessary components. Again, the question of what part of the programme leads to effects arises. One answer relates to the interaction of various components. For instance, Botvin's LST combines social skills, decision-making and assertiveness, with lessons about how to apply those skills to specific areas of risky behaviour such as smoking, drugs and alcohol. It is in the interaction of key components that benefits are transferred. These benefits arise because, in the case of

Botvin's LST, the skills that were theorised to impact on risk-taking behaviours (such as a lack of assertiveness and decision-making abilities) were combined with lessons tailored towards the implementation of those skills and it is the interaction of those components which is the "active ingredient".

In short, Botvin's LST subscribes to a theory of change and executes it appropriately. This is generally seen as the mark of a successful programme. Therefore, rather than scrutinising materials for face validity or relying entirely on effect sizes, it would be more valuable to access the model of change that the programme follows and the extent to which that model is represented in the curricula.

A pervasive viewpoint was that there has been an over-accentuation of programmes at the expense of considering effective models of change, and it was often suggested that the model is more important than the materials. In other words, the message is far more important than the means of delivery and a focus on individual programmes utilises the wrong unit of analysis.
In terms of establishing a comprehensive, coherent syllabus, it is important to consider how programmes are integrated. Some researchers were critical of a focus of interventions on maximising lesson success whereas the key goal should be coherence with other school programmes. Put another way, though it is important to make the hour of PSHE as effective as possible, it is equally or more important to integrate it with the rest of the time spent in the school. While designing evidence-based lessons is important, it is not equivalent to an integrated, well-implemented programme.

The same principles apply within the PSHE curriculum itself. For instance, while many interventions contain a multitude of discrete elements, those elements are often included in service of a specified intervention aim such as reducing risk or unwanted behaviours in a certain domain. However, topics that are touched upon are not necessarily done so comprehensively and could be supplemented. For instance, a drugs prevention intervention may include information designed to increase resilience, but that does not mean that resilience related skills have been exhaustively discussed, just that it has been covered sufficiently to serve the initial aim of the programme. As such, a comprehensive PSHE programme might incorporate aspects from different programmes that are designed to focus on similar issues. The difficulty is ensuring that this is done so using similar approaches, language and methods so that effectiveness is maximised.

In terms of the characteristics of effective programmes themselves, the most clear-cut answers come from CASEL research which has highlighted the features particularly successful interventions. Effective programmes tend to be well *sequenced*, include opportunities for *active* learning, and include *focused* and *explicit* lessons (S.A.F.E.). These characteristics increase effect sizes for programmes significantly

In addition to the characteristics of effective interventions, it is important to realise that programmes originate from different theoretical backgrounds. For instance, some programmes focus on skill-building, others on school climate, and others on prevention, and each of those have different origins as well as strengths and weaknesses. For example, prevention-based programmes appear to be better associated with health behaviours than social and emotional skills education-based lessons. Therefore, it is important to consider the theoretical stance upon which programmes are based and choose interventions based partially on this information.

Many meetings focused on the pathways by which programmes take effect. While this is related to models of change as discussed earlier, pathways relate to the specific effects that occur in practice that lead to positive changes. It was suggested that good interventions have an effect by changing the pervasive culture in schools. By changing the school culture, achievement motivation, teacher variables and social and emotional behaviours are all influenced. A model (proposed by Ann Higgins-D'Allesandro) for changing school culture suggests that four things can be targeted: normative expectations, peer relationships, teacher-student relationships and educational

2. *Implementation issues*

The central message regarding implementation as gleaned from the meetings follows on from the main message regarding the effectiveness of individual programmes. It is important to deliver materials in a sequenced and coordinated way. As such, a smattering of programmes will not be as effective. It is inadvisable to break programmes apart and deliver components of them out of context because, as was discussed above, it is the model that is tantamount, rather than the mateirials. Many schools use one programme as an anchor and supplement it with other programming that can be built around it. This can be an effective approach because then the integrity of the programme is maintained, but lessons can be tailored to fit the individualised needs and obligations of schools.

Several technical issues require attention. First, it is important to consider implementation support. Not only is initial training important, but programme effectiveness can be maximised in cases where programme providers also provide ongoing technical support to ensure the smooth operation of the intervention and to deal with any problems that arise. In many cases, programmes cannot realistically be delivered without professional support and in others, programmes cannot be purchased without also agreeing to partake in continuing professional development (provided by the programme suppliers). This may prove problematic in the case of PSHE, where the cost of such support is prohibitive, or the number of programme participants is small. For instance, some teachers may need materials for a single, small class of students, in which case a large scale training and technical support package would be unfeasible. As such, a portfolio of programmes that includes programmes that can be delivered with minimal training and support (and at a minimal cost) might be desirable to ensure that programmes are available for a number of different contexts.

The discussion above alludes to two critical issues. First, it is necessary to take into consideration the publishers concerns for the distribution of programme materials. Most publishers of interventions would be unhappy with the idea of using samples or snippets from their programmes. In some cases, it is impossible to access interventions without an agreement to fully collaborate with researchers in the implementation. As such, it will be crucial to be very careful when adapting programme materials for a comprehensive PSHE syllabus. Another practical issue relates to funding. Currently, it is unclear how schools will fund programmes and it is important to have an understanding of this issue to ensure that the portfolio of programmes is suited to the financial capabilities of schools or school councils. Changes in funding arrangements might be expected based on the current political situation and these should be well understood as soon as possible. It would be worthwhile to meet up with teachers, school heads and council heads in areas where interventions have been applied to understand the process and the financial arrangements.

Relatedly, it is important to have a thorough understanding of what students, teachers and schools expect and desire from the interventions. As for PSHE, it would be valuable to have a record of what students would like to see in a PSHE curriculum, who might be expected to access the portfolio of projects that is in development, and what programme implementers (i.e. teachers) want in their classrooms. Additionally, it would be useful to make contact with groups that have a vested interest in the wide-scale application of well-implemented programmes and to develop an implementation partnership with the group as a means to disseminate materials and support programme implementers. This might be in the form of teachers unions, groups of teachers with an interest in PSHE (i.e. Trinity Group) or the PSHE Association.

The following brief set of facilitators and barriers to adequate implementation was highlighted at the Middle School Consensus Conferences by teachers and others with experience in implementation:

- Facilitators to successful implementation:
    - Adequate planning
    - Small scale to large scale implementation (e.g. start at classroom level and work up to whole school or district level)
    - Planned professional development
    - Continuous assessment and improvement
- Barriers to successful implementation
    - Lack of class time and development time
    - Teacher burnout
    - Insufficient funds

When it comes to adapting programmes for different contexts and cultures, there are no easy answers. There is cause for both optimism and pessimism when it comes to programme adaptation. On the plus side, there is some suggestion that even if programme materials and elements are not easily transferable, underlying constructs and models are more so. Yet again, that suggests that the important issue is the theory or model of change, rather than programme specifics. Additionally, the risk factors for problematic health behaviours, insufficient social and emotional skills and risky behaviours are similar across most cultures and in most contexts. As such, models developed in different contexts are likely to be applicable anywhere. Lastly, the fact that perfect programme fidelity is exceedingly difficult to achieve is not particularly troublesome since absolute fidelity is not appropriate when transferring programmes to different contexts. However, the difficulty lies in finding the "sweet spot" between rigorous fidelity and adaptability. Unfortunately, work in the field of translational research, which focuses on the transition between theoretical or lab-based practices to implementation suggests that this is a continuing problem in intervention application

3. *Programme evaluation*

The task of identifying well executed programme evaluations is not an easy one, but a number of novel suggestions were put forward. Firstly, vigilance in terms of detecting insufficient evaluation methods can be somewhat relaxed if the study has been published in a peer-reviewed journal. As such, the first line of enquiry should focus not on *what* the information is but *where* it is. Very few plausible evaluations that identify positive programme effects can be found outside of peer-reviewed publications (unless they are in the

process of publishing) and if the work is unpublished, it is worth considering why that might be. The flipside is, if a study is published in a reasonably respected journal, it is more likely to have been adequately assessed. For an issue that has few easy answers, this is one easily identifying marker of above average assessments.

One impediment to identifying high-quality evaluations is the large number of different analytic techniques that are employed. While complex analytic techniques are not in and of themselves suggestive of evaluation quality, they make interpretation very difficult. Analyses can vary based on a number of factors such as the targeted journal, the outcome variables and the aim of the study. However, this does not usually preclude the reporting of effect sizes, which make comparisons across studies easier. An additional way of determining study quality in the face of analytical techniques that are difficult to interpret is to focus on study design. Experts appear to agree that the specifics of the analyses are less important than a well-designed study that yields significant results. As such, if those criteria are satisfied, the study is likely to be of value.

Another characteristic of good evaluations is a proper match between programme aims and outcome measures. While this makes comparisons between studies more difficult, it is worth being sceptical of programme evaluations that do not have appropriate, specific outcome measures. Other more specific things to look for are the use of instructional/classroom quality measures which are becoming a gold standard of implementation evaluations and the use of nested designs. The latter refers to the fact that outcome variables are not completely independent of one another and a failure to take that into account could lead to a misinterpretation of effects. As an example, consider a study which randomly assigns schools to an intervention condition or a control condition and assesses students at several time-points. To achieve accurate results, it is important to take stock of the fact that time is nested in students, students are nested in classes, classes are nested in schools and schools are nested in interventions. Since there is not complete independence of these variables, large sample sizes become important and appropriate analyses should be applied. Studies that fail to do so should be viewed with some suspicion.

Another aspect of interpreting evaluations is related to interpreting effect sizes. Though this issue has been tackled in a number of ways, a meta-analysis (in press) by CASEL sheds light on the sizes of effects that can be expected. On average, SEL interventions have an effect of approximately half a standard deviation in regards to the skills that are being targeted and of a quarter of a standard deviation for distal outcomes such as academic outcomes, problem behaviours, depression, conduct disorders, etc.

A final tip (from Maurice Elias) suggests that field trials should be taken seriously and are as important as formal evaluations. It is important to determine whether the material resonates with practitioners and participants. To supplement a well designed experimental evaluation, it can be helpful to include measures of "consumer" variables such as ease of use, student motivation for the curriculum and overall satisfaction with the programme.

4. *Information about specific programmes and programmes to consider*

The following is a list of the programmes that were discussed in some depth in the meetings. A number of them were discussed to get additional information and to ascertain the status of evaluations in progress, whereas others (marked with *) were unknown to me and were

suggested because they were either seen as exemplary programmes, would fit well into British schools or are in development and worthy of further consideration

- Botvin's LST
    - Designed to address several important cognitive, attitudinal, psychological, and social factors related to tobacco, alcohol, and illicit drug use and violence.
    - Includes lessons on cognitive-behavioral skills for:
        - problem-solving and decision-making
        - resisting media influences
        - managing stress and anxiety
        - communicating effectively
        - developing healthy personal relationships
        - asserting one's rights
    - LST includes general skills, and then teaches how to implement them in relation to drug prevention
    - Though LST includes lots of segments, they are all abbreviated, so can't be considered a comprehensive on the individual elements, e.g. though it includes social skills, it is not a social skills programme as such and could be supplemented by additional social skills programmes
    - Active ingredient: appears to be the interaction between different components of the programme, so it can't be boiled down to one active ingredient
    - Very consistent evaluations both in terms of methods and results. Differences between studies usually relate to presentation requirements of the journal or the specific aim of the study
    - Currently being assessed in Russia and Barbados
- Resourceful Adolescent Program:
    - Designed to increase resilience in 12 to 15 year olds
    - Includes sessions affirming strengths, self-management and self-calming, problem solving, building and accessing psychological support networks, interpersonal skills
    - Currently undergoing a trial in Bath to "see whether they can help young people to stay happy and positive in their mood and stop them becoming depressed": http://www.bath.ac.uk/health/mhrdu/Promisebackgroundinfo.html
- * Developmental designs (Responsive Classrooms, middle school program):
    - Is less a curriculum than a framework for incorporating SEL into all aspects of school (whole-school
    - Highly recommended by CASEL
    - Focuses on six guiding principles
        - Social learning is as important to success as academic learning.
        - We learn best by constructing our own understanding through exploration, discovery, application, and reflection
        - The greatest cognitive growth occurs through social interactions within a supportive community.
        - There is a set of personal/social skills that students need to learn and practice in order to be successful socially and academically: Cooperation, Assertion, Responsibility, Empathy, and Self-control.
        - Knowing the physical, emotional, social, and intellectual needs of the students we each is as important as knowing the content we teach.
        - Trust among adults is a fundamental necessity for academic and social success in a learning community.

    - Includes classroom practices such as social contracts, declarations of goals, empowering teacher language, collaborative problem-solving, modeling and rehearsal
- Skills for Adolescence:
    - Highly recommended by Mark Greenberg and Sue Keister (CASEL)
    - SFA program elements and processes utilize social influence and social cognitive approaches to teach cognitive–behavioral skills for building self-esteem and personal responsibility, communicating effectively, making better decisions, resisting social influences and asserting rights, and increasing drug use knowledge and consequences
        - Essential life skills
        - Character Development
        - Preventing negative behaviour
        - Citizenship and service
    - Sue Keister should be contacted re. SFA in Australia
- Second Step:
    - Focuses on violence and bullying prevention
    - Includes lessons regarding empathy, anger management, impulse control, communication skills and problem solving
    - Maurice Elias (CASEL) suggests it is a worthwhile program and has a strong presence in UK
- * Mind Up
    - Mindfulness programme for students in grades K-7
    - The program is divided into three sections:
        - Quieting the Mind, Sharpening the Focus
        - Directing Our Thoughts and Feelings,
        - Being Mindful of Each Other and the World.
    - http://www.thehawnfoundation.org/results/
    - Recommended by Mark Greenberg
    - Currently piloting programme for older students
- * Social Decision Making: Research Press: K-8
    - Maurice Elias is currently undertaking an investigation into its effects in NJ (though it has been assessed often before)
    - Focuses on social and decision making skills (K-8)
- * Answers
    - Interesting approach to sex ed. (see handouts)
- * RULER Approach: Marc Brackett
    - Focuses on emotional literacy: K-8
    - Includes both an "add-on" curriculum as well as a teaching approach which can be embedded in a whole school approach
    - High school curriculum is currently being piloted
    - Currently being trialled in Kent (Cornwallis Academy and New Line Learning Academy, both located in Maidstone)
- Community of Caring:
    - SACD: outcome measure for community of caring
    - Community of Caring, based on Kohlberg's six stages of moral reasoning development
    - Includes both curriculum and a whole school approach (awaiting email with curriculum details)
    - Focuses on five core values:

        - Caring
        - Respect
        - Responsibility
        - Trust
        - Family
    - No publications yet, but 2008 analysis is the first
    - Currently in its first major effectiveness trial and results appear promising (awaiting advance copy of report from Ann Higgins-D'Allesandro)
- 4Rs
    - SEL programme incorporated into English class (social studies for older students)
    - 4Rs, cross over effects to depression: how? Maybe if you reduce conduct disorders, kids get yelled at less, less isolated etc. Or maybe, the kids they used to beat up start to feel happier.
    - 4Rs programme is still ongoing with several modifications and extensions
    - 4Rs: whole school, but works better the younger that it starts
    - Rich peer-network data that they are analyzing that now
    - Also, followed kids from elementary schools to middle school to see how effects continue long term
    - 4Rs: desgined to go k-high school
    - www.morningsidecenter.org, developed 4Rs programme: they have models for older ages, but no trials yet: Only have k-5 so far
    - Marginal time costs for using the same literature to teach English and SEL, because they've already read the books
    - In middle school, it's embedded in social studies
    - 4Rs makes Kids better at interacting with high-risk kids
- Aban Aya:
    - Sex, violence and drugs: quite innovative at the time
    - Sustainability project: didn't work. Too ambitious, because parents didn't have the skills and teachers didn't have the resources to deliver the project. The message is to make sustainability of a project a priority from the beginning
    - There is now nothing happening with Aban Aya, although Carl Bell is applying some of the Aban Aya principles in a Study in South Africa
- Positive Action:
    - Currently developing a middle school curriculum (Brian Flay)
    - But PA is only appropriate for younger kids, in Mike's opinion
    - PA: whole child/whole school approach; cognitive, behavioural
- * Middle School Coping Power
    - Tom Dishion
- * SPARCS
    - Prevents depression in middle school
    - Mandelson and Tandon and Leaf
- * Positive Life Changes:
    - currently piloting with 14-19 year olds (Guerra)
    - Positive Life Changes workbooks:
        - Who am I, where am I going
        - Myself and others
        - How can I solve problems

5. *Resources and Contacts*

In addition to pointing out programmes that had not yet been considered, a number of other resources were provided. An important category of resources is programme listings and meta-analyses which could be valuable in identifying programmes and providing a means to directly compare various programmes in terms of their efficacy. Additionally, it has been useful to be notified regarding a number of trials of relevant programmes in British schools. Other resources relate to SEL and health education standards, various SEL education approaches and implementation issues. Lastly, the researchers I met provided me with the names of other researchers and programme developers that could help guide the project. In the coming weeks, additional information about these resources and contacts will be gathered.

<u>Programme compendiums, listings and meta-analyses:</u>

- Blueprints
- NREPP
- Communities that Care
- Cochrane (or Campbell) Collaboration
- Coalition for Evidence-based policy, John Baron
- Safe and Sound (2003 and 2011)
- Durlak meta-analysis

<u>British programme evaluations that are in progress</u>

- Randomised trial of PATHS in Birmingham
- Together For all, Northern Ireland: applied PATHS intervention and is currently trialling it. Might be worth looking into how that collaboration went about
- RULER Approach trial in Kent

<u>Other Resources</u>

- CARE garrison institute
- BC social responsibility standards
- Singapore Education standards: 24 hours of SEL a year
- Michigan Model for comprehensive school health
- CASEL Implementation guide and toolkit
- PBIS: framework for finding needs and help meet them
- Just Community Approach
- Community-based participatory research (CPBR): instead of researchers developing and testing programme, then handing it off to implementers, instead, programme originates in the "real world"
- Potvin and Pluye from Montreal have written some seminal work about sustainability

<u>Contacts</u>

- Mark Brackett (RULER Approach)
- Hall Children's Club: Calgary
- Sue Keister (LionsQuest in Australia)
- Shelley Berman
- Neil Humphrey at Manchester University ENSEC: ask about measures of social competence
- Scarsdale alternative schools

- Bob Slavin: Success for all
- Celene Demetrovich: Prevention research, seminal paper about implementation
- Brian Flay: Aban Aya, and (1986) Efficacy, effectiveness…
- Carl Bell: working in SA with Aban Aya principals.
- Larry Green: translation research, evidence-base
- Dennis Embry: Paxis.org/triplep

Contacts from Middle School Consensus Conference:
- Tom Dishion
- Dennis Embry
- Marc Brackett
- Nancy Guerra
- Celene Domitrovich
- Sue Keister
- Doug MacIVer

	Emo.	Ill.	Oth.	Sex	Par	Hea.	Car.	Med.
Botvin's LST	/					x		/
Resourceful Adolescent Programme	/	x	/					
Developmental Designs	/		x					
Skills for Adolescence	/					x	/	
Second Step	/		x					
Mind Up	x		/					
Social Decision Making	x		/					
Answers				x				
RULER	x							
Community of Caring	/		x				/	
4Rs	x	/	/					
Positive Action	x		/					
Coping Power	/	x						
SPARCS	/	x						
Positive Life Changes	x		/					

Emo = Understanding and managing your own emotions
Ill. = Handling mental illness
Oth. = Understanding others and caring for them
Sex = Love, sex
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Hea. = Healthy living: exercise, diet, alcohol, drugs, smoking
Car. = Your career and contribution to the world
Med. = Understanding the media and politics

x = main focus of programme
/ = secondary topic

Appendix 6

Australia visit report

The Format of the Report

The trip to Australia necessarily entailed a different set of aims to the trip to the U.S. While the trip to the U.S. took place when the project was in a much more embryonic stage, the more recent trip to Australia occurred when the format of the project had been more thoroughly established. This meant that for the earlier trip it was appropriate to explore a broad range of themes relating to programme development, assessment and implementation. This information serves to guide the project in a number of ways. Currently, there is less scope for information which arises from meetings to drastically alter the path of the project and time constraints require that a more direct approach be implemented such that the project progresses on schedule. In short, this means that the meetings in Australia would be most helpful when focused specifically on guiding key decisions in the successful completion of the project.

Therefore, the best way to report back from the meetings is to organise the information gathered around the key decision points. This differs from the previous report in which information was organised under themes that were discussed in depth during the meetings. Most obvious in terms of key decisions is choosing the programmes that will make up the 'portfolio'. However, a precursor to this decision is to determine a set of guidelines to guide the selection of programmes. Needless to say, at this relatively late stage, the essential and desirable criteria for inclusion have been all but determined. Still, there are a number of issues which require consideration to ensure that the final portfolio best serves its purpose. There are also issues to be considered relating to how best to deliver the findings and what additional information (over and above the portfolio selections) to include.

Which programmes should be included in the portfolio?

A main aim of the trip was to meet with researchers involved with particular programmes to discuss issues relating to assessment and implementation to assess whether they suit the aims of our project. The main programmes which were discussed are described below and their main advantages or disadvantages in terms of their suitability are briefly discussed:

<u>MoodGym:</u>
MoodGym is a CBT-based programme designed to prevent anxiety and depression in adolescents and young adults. Though originally conceived to serve as treatment for mild depression, it has recently been trialled in secondary schools with strong results regarding the prevention of anxiety and weaker results for depression, for which it was only effective for boys. The programme is completed entirely online.
Advantages: Free; no training required; format ensures programme fidelity
Disadvantages: Delivery method is inflexible

<u>Aussie Optimism</u>
This programme has been demonstrated effective in reducing anxiety and depression, as well as hyperactivity and other behavioural problems, and drug-related behaviour. It is based on PRP, but has been adapted (mostly relating to delivery method) to avoid having to pay for the rights to use it. In addition to these modifications, an additional component focusing on social skills was also added.
Advantages: Relatively cheap compared to PRP
Disadvantages: Training may be expensive, as trainers would have to be flown from Australia; no British presence

Resourceful Adolescent Program:
Based in Sydney, RAP is Designed to increase resilience in 12 to 15 year olds. Includes sessions for affirming strengths, self-management and self-calming, problem solving, building and accessing psychological support networks and interpersonal skills. Currently undergoing a trial in Bath to "see whether they can help young people to stay happy and positive in their mood and stop them becoming depressed": http://www.bath.ac.uk/health/mhrdu/Promisebackgroundinfo.html Programme is administered by researchers (not teachers) and all evaluations have been related to researcher-delivered programme
Advantages: Strong evidence of effectiveness (reduces depression); is being trialled in Britain
Disadvantages: Not teacher led programme; receiving training in Britain could be problematic

Best of Coping
Best of Coping is a programme based on a series of coping programmes and is available in book form. The programme is very adaptable depending on the context and the types of coping skills which are targeted. For example, it is currently being trialled in an RCT focusing on children with diabetes. This is the only RCT which has been conducted with other evaluations taking the form of pre-post assessment.
Advantages: Very flexible; no training courses are required
Disadvantages: No programme support available; relatively weak evaluations

Beyondblue
The Beyondblue programme arose out of an initiative to design a school-based programme to prevent depression in Australian middle schools. It involved a number of researchers that had worked on the development of related programmes, such as the Gatehouse Project and Problem Solving for Life, and incorporated elements of these programmes. The evaluation of the programme found no effects whatsoever for the programme.
Advantages: Freely available
Disadvantages: No evidence of effectiveness

Gatehouse Project
The Gatehouse project was designed to increase school connectedness and resilience in pupils. This was targeted by promoting positive school environments. It adopted a whole-school approach, but also included a 10-week curriculum for students in grade 9 (approx. 15 hours of class time). The programme demonstrated no effect on depressive symptoms, but did reduce health-risk behaviours. Though the programme is officially defunct, it has led to a number of related projects including a replication in London
Advantages: Curriculum is freely available
Disadvantages: No training/support available; whole-school approach of programme would not fit easily into PSHE lessons

Problem Solving for Life
PSFL incorporates two components. The first component focuses on cognitive style and teaches young people to identify thoughts, feelings, and problem situations and the relationships between these. The second portion teaches problem-solving skills and social skills. The programme reduced depressive symptoms and increased positive problem solving behaviours at post-test, but the effects on depression disappeared by 6-month follow-up, and the problem solving differences were not detectable after 12 months.
Advantages: Would easily fit PSHE curriculum
Disadvantages: Low effectiveness; programme is no longer commercially available

SHAHRP
The School Health and Alcohol Harm Reduction Programme is designed to reduce harm related to alcohol consumption and the dangers associated with drinking. It has been shown to significantly affect alcohol-related knowledge and attitudes, and significant differences between the intervention and control students were found in regards to the rate of change in alcohol consumption, with the

intervention group increasing their alcohol consumption less then controls. The programme has recently been trialled in Northern Ireland with significant effects for self-rated alcohol-related harm.
Advantages: Materials are freely available; evaluated in Britain
Disadvantages: Unclear whether training could be arranged for Britain and costs might be prohibitive

Drugs Education in Victorian Schools

This programme is an extension of the SHAHRP programme and also targets drugs and cigarettes and sexual risk-taking related to drugs/alcohol. The programme is being implemented in year 8 and 9 throughout schools in Victoria. The programme includes 10 lessons per year and the entire programme will be available online after completion of the trial
Advantages: Based on well evaluated programme; free
Disadvantages: Still being trialled; unclear whether training will be available

FRIENDS

FRIENDS is designed to prevent depression and anxiety and encompasses a series of programmes for children age 4-17. The programme is very comprehensive and includes content related to self-esteem, attention, facing challenges, social skills, optimism, coping, basic relaxation, academic skills and other topics. FRIENDS has been extensively evaluated and has been shown to reduce anxiety and depression and increase self-reported mood and self-esteem. The programme has been widely implemented in the UK and training and materials are readily available throughout the country. The programme has been evaluated in a Scottish trial (though not an RCT; just pre-post comparison).
Advantages: Available in Britain; well evaluated
Disadvantages: Relatively inflexible delivery method

	Emo.	Ill.	Oth.	Sex	Par	Hea.	Car.	Med.
MoodGym	/	X						
Aussie Optimism	X	/	/					
Best of Coping	X							
Beyondblue	X	/						
Gatehouse	X							
Problem Solving for Life	/		X					
SHAHRP	/		/			X		
Drugs Education in Victorian Schools	/		/	/		X		
FRIENDS	X	/		/		/		/
Resourceful Adolescent Program	X		/					

Emo = Understanding and managing your own emotions
Ill. = Handling mental illness
Oth. = Understanding others and caring for them
Sex = Love, sex
Par. = Parenting and child development
Hea. = Healthy living: exercise, diet, alcohol, drugs, smoking
Car. = Your career and contribution to the world
Med. = Understanding the media and politics

X = main aim of programme
/ = information regarding the topic is included

x = main focus of programme
/ = secondary topic

Key Decision Point:
Which programmes should be included in the portfolio?

Cost, Training and Support

An overriding aspect of choosing programmes for the portfolio is ensuring that the programmes are relatively easy to access and affordable, and include appropriate levels of support, professional development and training. As it happens, these goals are somewhat conflictual. Australian programmes are often available freely and can be downloaded and copied at will. This arises out of the funding arrangements in Australia whereby programme development and assessment are publicly funded with the view of disseminating the programme in a particular area or school district. For example, programme materials for SHAHRP, Beyondblue, Gatehouse and Problem Solving for Life can all be downloaded online.

The flipside of this arrangement is that, because the programmes were developed with the explicit purpose of local dissemination, no arrangements are made to allow for more widespread use of the programme. Even when professional training is available, this might entail flying trainers from Australia or flying teachers to Australia which would add to costs and might not be feasible for many schools. Therefore, it is difficult (and often costly) to arrange for training and additional support for the programme. Though the stated purpose of the current project is to find evidence-based *materials*, there is no way to prise apart programme effects that are due to appropriate materials and those that arise due to training and programme support. In fact, several programme developers and researchers in Australia (in addition to many in the U.S.) made the claim that a key component of successful programmes is adequate levels of professional development and ongoing technical support.

If this claim is accepted, then using free programmes is in fact a false economy because if training is not available, then it is unlikely to be effective, and if it is, it is likely to be expensive. The issue of cost is an important one as it is unclear how schools can be expected to fund these endeavours and may be reluctant to pay for programmes when free materials are available. In fact, this may have led to the current situation where non-evaluated programmes are implemented because they are freely available

Therefore, the conflict that arises is, though it would be relatively simple for materials from well evaluated programmes to be accessed and implemented in schools, this simplicity may be related to implementation issues. On the other hand, programmes that do offer high levels of support require a good deal of planning and time for professional development and may be prohibitively costly. In fact, several well evaluated programmes (such as Aussie Optimism and FRIENDS) require training before access to programme materials is granted. These factors may well dissuade schools from implementing them. Therefore, there is an inherent trade-off between ease of application (including considerations of cost) and adequate levels of support.

Key Decision Points:
Should we favour easy to access programmes where support might not necessarily be accessible, or only include programmes where full support and training are available?
How should the issue of cost affect how programmes are chosen for the portfolio?

Ongoing Programme Development and Evaluation

A problem inherent in adopting an evidence-based approach is that proper evaluation takes a great deal of time. The process of implementing, piloting and evaluating a programme can take many years, after which the publication process takes a great deal of time. Therefore, it takes many years for programmes to be recognised as evidence-based. This means that well-designed programmes cannot be recognised as evidence-based until the protracted process of evaluating and publishing is complete. It also means that new programmes rarely take advantage of new developments and

discoveries in the field. Lastly, it leads programme developers to be reluctant to make any changes to programmes lest these changes undermine the evaluated effectiveness of the programme.

In terms of choosing programmes for the portfolio, this leads to two complications. First, when evidence-based programmes are substantially changed to accommodate new research findings or to cover slightly different material how should this be interpreted? To give an example, the Drug Education in Victorian Schools Program is based substantially on SHAHRP, which has been well-evaluated, but is altered to include information related to drugs (rather than just alcohol) and alcohol and drug-related risk taking. The new programme is currently undergoing a three year RCT. Another example is the FRIENDS programme which has been updated to include a number of relatively newly discovered risk-factors for anxiety such as attention, diet and exercise and empathy. This adapted curriculum will be piloted starting in October, 2010 and will be available commercially by the end of the year.

Both of these examples hint at the distinction between "evaluated" and "evidence-based" programmes. A number of programme developers point out the illogicality of having to fully evaluate intervention techniques that are demonstrably effective when they included in a different context or altered slightly. However, even evaluations which demonstrate significant effects rarely pinpoint the pathways through which effects are achieved, so any change could feasibly alter the active ingredient.

The second complication related to the protracted evaluation period is that new evaluation results are often unavailable for some time. For example, past evaluations of Aussie Optimism suggest that it is effective in preventing anxiety, but no other outcomes have been significantly affected. However, a new evaluation suggests that Aussie optimism reduces depressive symptoms, hyperactivity and drug-related behaviour in adolescents, but formal reports of these findings are, as yet unavailable. Though it seems a shame to discount these findings when considering the programme, it is difficult to take them fully into consideration at this early stage of the research.
In short, developments in programme content and evaluation often have serious ramifications for the evidence-base of the programme. However, because of the time-scale involved in evaluating programmes, it is difficult to determine the ramifications of these developments.

Key decision points:
How do adaptations to programmes affect their suitability?
How can brand new evaluations be adequately taken into account?

Categorising Programmes

A critical decision that has been at the forefront of the project since its inception relates to how programmes deemed to be worthy of the portfolio are categorised. This is a crucial issue because the task of choosing programmes will be facilitated by an awareness of which areas have been sufficiently targeted and which require additional attention. Also, the portfolio will be of greater use if it is thoughtfully organised. Several broad categories ('Understanding and managing emotions', 'Understanding others and caring for them', 'Parenting and child development', etc.) have been agreed, and these have served to guide the process of identifying potentially suitable programmes. However, the breadth of these categories mean that they require refinement. For example, understanding and managing emotions is a complex, multi-faceted business. To assume that a single programme could comprehensively tackle that issue would lead to an inadequate portfolio of materials. Therefore, appropriate sub-headings in each category are needed. How best to define these sub-headings requires a great deal of thought.

The most obvious possibility is to categorise programmes by content. Content categories would include, for example, coping skills, mental health literacy information, social skills and sexual health lessons. This form of categorisation is intuitive and would be helpful to schools and teachers because it would make clear what information was being presented in the classroom. However, a downside of this form of categorisation is that most well-evaluated programmes cover a range of topics. This is

because various types of skills, attitudes and knowledge might be regarded as most effectual in terms of effecting a particular outcome. For instance, FRIENDS, which has an explicit aim of reducing adolescent anxiety, targets anxiety by focusing on CBT-based skills, social skills and emotional literacy. Thus, categorising it would be difficult.

This leads to a second form of categorisation in which categorisation is based on the stated aim of the programme. To use the same example, the FRIENDS programme would be categorised based on its stated aim of reducing anxiety (into a category dealing with managing emotions, coping or preventing mental disorder). This form of categorisation would be useful for schools that were interested in targeting certain outcomes such as mental health, sexual health, substance use or conduct disorders, though the content that was included to target these outcomes would not necessarily be reflected. Categorising programmes this way would also likely be more easily interpretable, since programmes with similar aims would likely be categorised together. However, a potential downside is that the same content is likely to appear in many programmes with substantially different aims. For instance, social skills are associated with decreased substance use, inoculate from depression and reduce conduct problems in schools and as such, could be targeted in programmes related to any of these broad outcomes. In practice, this is not particularly problematic since re-visiting these skills in different contexts is conducive to understanding and application of the skills.

A final form of categorisation refers to the fact that our project emphasises the evidence-based approach of programmes. While a programme's stated aim or content is worth consideration, the extent to which a programme is "evidence-based" is defined by the outcomes which it has demonstrably impacted. For example, though the Gatehouse Project includes content related to coping skills and was designed to target depression, the only outcome which it has been shown to effect in adolescents is risky drug- and sex-related behaviour. Thus, to categorise it based on content (coping skills) or stated aim (depression prevention) would be misleading as it does not have an evidence-base for either. If programmes were categorised based on outcomes, then the evidence-based elements of the programmes would be emphasised. To put it another way, if a programme targets social skills, but does not have demonstrable outcomes related to social skills, then it cannot be considered an evidence-based social skills programme and should not be categorised as such.

To be clear, these different forms of categorisation are not as discrepant as they have been portrayed to be and they would not lead to drastically different outcomes. After all, content, stated aim and outcomes impacted tend to be highly related. Also, no matter how programmes are categorised, it is important to convey information regarding the content, aim and evaluation of programme. However, to reiterate, the categorisation system can serve as a guide to where suitable programmes are still needed to ensure that the portfolio represents a complete PSHE syllabus. (See annex 1a for an example of categorising by content and annex 1b for an example of categorising by outcome; the latter is similar to categorisations based on stated aim).

Key decision points:

How should the final portfolio of programmes be categorised?

Which categorisation system will best guide the selection of a complete portfolio?

Suitable Outcomes

A pervasive issue, and one that was discussed at length in both the American and Australian trips relates to the use of suitable outcome measures in programme evaluations. Usually, outcomes are chosen to closely mirror the content of the programme in question. This is especially true when outcomes are related to increasing knowledge or changing attitudes. However, as discussed above, programmes are often designed to target a particular outcome and include a variety of approaches to do so, thus the content of the programme and the outcome measure are not necessarily analogous. This is, in itself, not problematic, but it should be taken into account that demonstrating significant effects for the broad outcomes is much more difficult than effecting specific knowledge and attitudes.

Depression serves as a useful example. A number of thoughtfully designed programmes which are designed to target it have failed to show significant effects (e.g. Beyondblue, PSFL at 36 month follow-up). This may be partly due to low incidence rates for depressive symptomatology which make any changes difficult to detect. In fact, a meta-analysis concluded that "there is no clear evidence to date that depression prevention is effective and implementation of depression prevention programmes would be premature on current evidence" (Merry & Spence, 2007). This suggests that even small programme effects for depression should be taken seriously as evidence of effectiveness. In short, it is important to take into account the variety of outcome measures used and the effects that can be expected depending on which are chosen.

Related to this issue is that of follow-up time. It is not uncommon for programme effects to "wash out" when participants are tracked longitudinally. For example, the PSFL programme significantly influenced problem solving skills at post-test and 12 month follow-up, but these effects disappeared by 36 month follow-up. Though health promotion programmes aim for long-term benefits, it is difficult to determine whether a failure to find these should count against them. This would, after all, favour programmes with limited follow-up times.

Another issue arises in regards to sub-group effects. Often programmes are effective only for certain sub-sections of participants based on, for example, gender, age or pre-existing outcome variable scores. For example, the MoodGym programme was universally effective in reducing anxiety symptoms, whereas for depression, effects were found only for boys. Many programmes have been shown to be more effective for those with high pre-test scores of the targeted outcome which helps explain why targeted programmes are much more likely to be effective. In terms of choosing programmes for the portfolio, it is difficult to interpret these types of findings. Though sub-group effects are certainly preferable to no demonstrable effects, since programmes will be used in diverse classrooms, can their use be justified if the programmes are only "evidence-based" for a proportion of the students?

Key Decision Points:
How should various outcome measures be interpreted/valuated?
How should sub-group effects be interpreted?

Implementation Issues

There have been widespread problems in scaling up programmes from efficacy (and effectiveness) trials to real-world applications. A number of factors have led to the pervasive finding that programmes are unlikely to succeed to the same extent they did during the trial. This is due to a number of factors due to programme fidelity. For instance, researchers and programme developers report that one of the first aspects of programmes that teachers drop when implementing the programme is active learning exercises and instead simply deliver programme-related information. This is problematic because active learning exercises have consistently been shown to be associated with significant programme effects. Since programme fidelity is related to effectiveness, it should be encouraged, but in terms of selecting programmes, several issues can be considered to maximise the likelihood of replicating successes demonstrated in programme trials.

Some programmes are more likely to be faithfully replicated than others. Here is a list of potential issues that may limit implementation fidelity from trials to real-world implementation:

1) Many programmes require extensive, expensive or difficult to access training.
2) Ongoing support provided during the trials may not be available to schools who are implementing the programme.
3) Some programmes are delivered by trained experts, rather than usual classroom teachers. These experts may not be available to all schools.
4) Curricular material may be included as part of a "whole-school approach" that cannot be replicated.

5) The programme may have been delivered in an inflexible way that is difficult to deliver in the school's particular context.

Each of these issues may limit the extent to which material is delivered in a similar manner as to the evaluation trial. This is potentially damaging because, as previously mentioned, it is difficult to discern which aspect of a programme has led to its success. Again, though the mandate of the programme is to find evidence-based materials, it is not clear whether the materials themselves which are important or whether it is the supporting structure and context. As such, it could be argued that it is in the best interest of the project to choose a portfolio containing programmes that are easily replicable in PSHE classrooms (i.e. discrete curricula, entirely teacher-led, little training required). However, this requirement would limit programme selection to a subset of the available programmes.

Key decision points:
Can programmes be selected which facilitate programme fidelity in real-world applications?

Final Report Format

The project will culminate in a report/publication, the major contribution of which will be the reporting of the finalised portfolio of programmes. In addition to the portfolio, it may be of use to present other information that will contribute to the effective use of the portfolio and provide background and context. The following is a list of potential topics that the report might contain:

- Summary of SEL/life-skills/health promotion in secondary school
- PSHE summary
- What's wrong with how PSHE is currently delivered?
- Where teachers currently get resources?
- Personal Wellbeing Curriculum: how to interpret it
- How to find evidence-based programmes
- Characteristics of successful programmes
- Applicability in the UK
- Criteria for selecting programmes for portfolio
    - Time
    - Compatibility
- What information should be included in final portfolio
- How to categorise portfolio
- Interpreting evaluations
- Resources (e.g. websites, people)
- The process by which programmes can be acquired
- Distribution/dissemination
- Evaluation
- Implementation issues
- System support
- Continuing the project
    - Training
    - Keeping portfolio up to date
    - creating a cohesive syllabus

Key decision points:
What information should be contained in the final report?

List of Meetings in Australia:

Mary Tobin and Helen Thomas
Affiliation: Catholic Education Office, Melbourne – Student Wellbeing

The Catholic Education Office is a leading Australian institution in the promotion of student wellbeing. They have developed a number of programmes designed to increase wellbeing and have also developed thorough wellbeing protocols and guidelines to facilitate the adoption of whole-school approaches to student wellbeing. They have formed strong links with researchers and have been instrumental in the evaluation of a number of wellbeing programmes and approaches. They also have strong links with Mindmatters and have developed and evaluated a number of programmes in conjunction with them.

Tracy Zilm
Affiliation: Mindmatters
Mindmatters is a governmental initiative designed to promote mental health in secondary schools throughout Australia. Mindmatters are responsible for supporting teachers in the appropriate implementation of wellbeing initiatives as well as providing evidence-based materials and programmes. In regards to the latter, MM have developed a database of evidence-based health promoting programmes that are available in Australia and have also developed new materials designed to promote resilience and mental health as well as mental health literacy and de-stigmatization of mental illnesses. Lastly, MM have been involved in a number of research initiatives designed to evaluate programmes and improve the delivery of mental health initiatives.

Susan Sawyer
Affiliation: Centre for Adolescent Health, University of Melbourne
Susan Sawyer has been involved in the development and evaluation of a number of SEL programmes including the Gatehouse Project and the beyondblue depression-prevention initiative. She is also an expert in adolescent sexual health and has researched extensively in regards to the successful delivery of SRE.

George Patton
Affiliation: Centre for Adolescent Health, University of Melbourne
George Patton was a lead researcher on the Gatehouse Project and a number of replications and sustainability projects. He was also involved in beyondblue and other programme designed to promote adolescent wellbeing. He has researched adolescent wellbeing, optimism, resilience and depression extensively.

Craig Olsson
Affiliation: Centre for Adolescent Health, University of Melbourne
Like the other researchers at the Centre for Adolescent Health, Craig Olsson is involved in Gatehouse and beyondblue. He is also been instrumental in implementing and evaluating wellbeing initiatives at Geelong School. Geelong is one of the most dedicated schools when it comes to student wellbeing. Perhaps more than any other school, they have devoted a great deal of time and money to promoting the wellbeing of their students. Their wellbeing programme incorporates PRP but has progressed beyond this in a number of ways.

Susan Moore
Affiliation: Swinburne University of Technology
Susan Moore is an expert in adolescent sexuality. Though she has not worked in the field recently, it is hoped that she can provide an overview regarding the implementation of successful sexual health programmes, especially those in an Australian context.

Robyn Ramsden
Affiliation: Australian Drug Foundation
The ADF's main aim is to reduce alcohol and drug dependency, abuse and harm. This types a variety of forms including advocacy work, alcohol and drug policy advising and research. Education is an important facet of the foundation's work and they have been involved in developing and, to a lesser extent, evaluating programmes to reduce alcohol- and drug-related harm.

Erica Frydenberg
Affiliation: University of Melbourne
Erica Frydenberg is an expert in adolescent resilience and coping. She has developed a number of resource for to help schools teach coping skills. This includes a guidebook for teaching coping skills and an online programme. She has also been involved in evaluating a number of wellbeing initiatives and is currently involved in evaluating an intervention implemented by the Catholic Education Office to increase school attachment and the quality of relationships within the school.

Helen Cahill
Affiliation: University of Melbourne
Helen was instrumental in setting up Mindmatters and developing the framework that it uses to support wellbeing in schools. She also helped to develop a number of the Mindmatters programmes. She is an expert in drugs education and is currently involved in a drug education programme efficacy trial. She has also developed a number of mental health promotion and sexual health programmes Lastly, she was involved in the development and evaluation of the School Health and Alcohol Harm Reduction Programme (SHAHRP).

Margaret Ho
Affiliation: Aussie Optimism Programme
Aussie Optimism began as a replication of the PRP in Australia. It has since developed into a distinct SEL programme, though it shares similarities with the original PRP. Consisting of two middle school components, Social Life Skills Training and Optimistic Thinking Skills, the programme is designed to prevent anxiety and depression and has been evaluated several times and is demonstrably effective at reducing student anxiety and, to a lesser extent, depression. Currently underway is a sustainability project that involves transferring the skills to teach and guide the programmes to teachers and facilitators imbedded in school communities.

Susan Spence
Affiliation: Griffith University
Susan Spence is part of the research team that evaluated the Gatehouse Project and beyondblue. She is also involved in the Problem Solving for Life programme and has written extensively about the challenges involved in effective programme evaluation. Despite her involvement in depression prevention programmes, she is critical of the tendency to apply programmes without adequate attention to their effectiveness.

Jeanie Sheffield
Affiliation: University of Queensland
Jeanie Sheffield is a lead developer and researcher for the Problem Solving for Life programme. She also was key in developing the beyondblue programme and associated materials.

Paula Barrett and Sasha Rombouts
Affiliation: Friends for Life Program
Friends is a depression prevention programme that has been very well evaluated and consistently demonstrates strong effects on depression and anxiety in middle school students. It has been implemented and evaluated in a number of countries including the UK.

Alison Calear, Helen Christensen, Richard O'Kearney
Affiliation: Australian National University
These researchers are primarily involved in the development and evaluation of MoodGym, a CBT-based online depression prevention and treatment programme. Recently, MoodGym has been trialled in secondary schools and the evaluations suggest that it is effective in reducing anxiety and in reducing the prevalence of depression. Because it is a standardized online programme, implementers require no training and fidelity is guaranteed. Along with MoodGym, other work includes systemic reviews and meta-analyses of depression preventing programmes.

Daryl Karp
Affiliation: Executive Producer of "Making Australia Happy"
Making Australia Happy is a TV series and book which follow an evidence-based approach to increasing wellbeing in people of all ages. It synthesises a variety of approaches to wellbeing and is based on eight bases of wellbeing including core values, gratitude, strengths, community and mindfulness. Participation in the show/programme led to increased wellbeing and a reduction in depression and anxiety. The show may be reproduced in Britain depending on the success of the first series.

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