School-research partnerships: A model for health promotion intervention programs in school settings

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Abstract

The intervention literature frequently suggests that effective research in health promotion programs is more likely to occur when researchers are cognizant of and responsive to the nature and needs of the host environment. This paper initially outlines the policies, responsibilities, needs and resources of the Victorian school system in the area of affective education. The Bright Ideas program (Brandon & Cunningham, 1999a, 1999b), a program that is embedded within the framework of rational emotive education and teaches optimistic thinking skills, was developed and implemented for students in 5th- and 6th-grade in Victorian primary schools in response to identified school needs. The expectation that school-based personnel take a more proactive role in the emotional education of all students, together with issues of cost effectiveness, resulted in a model in which classroom teachers and school psychologists jointly implemented the program. The findings from various studies that support the efficacy of the program and its method of implementation in increasing the coping resources of young people are then reported. Results support the feasibility of implementing school-based low-cost programs that address the emotional health of young people when the program intervention goals are congruent with the goals of system.

Introduction

In broad terms, the goal of health-promotion may be considered as any attempt that aims to strengthen the capacities of individuals in order to maximize their potential to adapt to, and grow from, life's challenges (Albee, 1996). Researchers in the intervention and health promotion areas increasingly acknowledge that two key elements are required for the longer-term success of any health-promotion education programs. Successful program outcomes depend firstly upon the translation of sound theory into practical applications, and secondly, require that these programs become owned and embedded within the system or organization for which the programs were developed (Reiss & Price, 1996). To achieve these outcomes, Green (2001) states:

The products of health promotion research that will have generalizability are ways of engaging the community, ways of assessing the needs and circumstances of the community or population, ways of assessing resources, ways of planning programs, and ways of matching needs, resources, and circumstances with appropriate interventions. It is the science of
The purpose of this paper is to illustrate how the process of ‘the science of diagnosis’ was applied in the implementation of a universal health promotion program in Years 5 and 6 in Victorian Government schools. The policies, needs and resources of the school system in addressing the emotional health of young people are initially outlined. Selected literature that provided the theoretical basis for program selection is then briefly reviewed. A program and process of implementation that was aligned with the identified needs of the school system is described prior to presenting some empirical results that support both the program and process of implementation.

School needs and resources

The growing awareness of the long-term negative consequences of psychosocial risks on children’s development has resulted in governments and communities increasingly looking to schools as settings for promoting resilience in young people. When young people are psychologically distressed, their energy is directed away from social and academic learning processes, thereby interfering with optimal school performance and age appropriate psychosocial development (Kovacs, 1997; Roeser, 1998). Furthermore, the presence of psychosocial problems is also a risk factor for a range of future problems including anxiety, depression, substance abuse and anti-social behavior (Kovacs, 1997; Petersen et al., 1993; Shochet & Osgarby, 1999).

In 1998, the Department of Education in Victoria (DOEV) formally responded to community concerns and the compelling evidence that many students were experiencing difficulties in the psychosocial domain by issuing a number of framework documents which outlined new arrangements for supporting student welfare (DOEV, 1998a, 1998b, 1999). The documents detailed principles, arrangements and additional resources for supporting student welfare through four levels of activity, namely primary prevention, early intervention, intervention and postvention (DOEV, 1998b). These levels of activity were determined on the basis of the targeted student population and refer respectively to activities supporting either all students, students at-risk, students in crisis, or students who have experienced a traumatic event (e.g., death of a loved one, suicide of a friend). The major shift in focus was the stipulation that 55 percent of total activity in student welfare support services should occur in the primary prevention sector whereas previously student support activity occurred almost exclusively in the remaining three areas (DOEV, 1998b). While there was still a place for more traditional approaches, the shift in focus clearly acknowledged that large proportions of students were experiencing varying levels of psychosocial distress that was detrimental to their social and academic development. Effectively meeting their needs required universal approaches. The Framework for Student Support Services in Victorian Government Schools (DOEV, 1998a) states that "The focus for schools will be the development of individuals through a range of broadly based programs focusing on primary prevention" (p.1).
The documents not only specified a significant change in direction for student welfare support but also presented guidelines on the types of programs and activities considered within the goals of prevention. The emphasis was on building resiliency in young people through programs and strategies that foster adaptive coping skills to enable students to better deal with difficult issues, including depression, self-harm and substance abuse. Included amongst the specific strategies cited in the documents were building optimism through disputing fatalistic and defeatist thinking, realistic self-appraisal, and coping mechanisms that lessen self-blame (DOEV, 1998b). The document specifically states:

The effectiveness of coping skills is significant in how young people cope with stress and adversity. There is clear evidence that having effective coping and problem solving skills lessens the risk of depression in eight to twelve year olds in the face of negative life events. (DOEV, 1998b, p.18)

The implementation of the recommendations in the documents entailed a major shift in the roles and responsibilities of school psychologists. Additional funding was provided in order to enable a number of school psychologists to move from a primarily individual service delivery model to a population-based model in which primary prevention accounted for over half of their total service delivery (DOEV, 1998b). Their new responsibilities not only entailed the development and implementation of a range of programs and strategies fostering resilience, but also required that these programs be monitored, evaluated and documented (DOEV, 1998a).

However, the task of promoting emotional health and well-being for all students was clearly not the sole responsibility of student-welfare support staff. A whole-school approach was recommended which emphasized the critical role of teachers in the social-emotional development of children in their care. The teacher resource framework states:

Each teacher has a vital role (to play) as a source of support and determinant of success for students. The most significant amount of students' time, apart from family, is spent with teachers who are often the most important adult connection - the first contact point for many issues and services. Teachers know that the social and emotional issues of students evident in schools have great impact upon the community and can create serious, ongoing problems. Every teacher can play an important role in prevention and early intervention programs and activities that strengthen the resilience of students as they learn and develop. (DOEV, 1999, pp. 5-6)

Essentially, the school system had undertaken much of the process of ‘the science of diagnosis’, the critical first level of “best practice”. Not only did the system identify the need for school personnel to be more proactive in promoting the emotional health and well-being of all young people through enhancing coping skills, but resources were also in place that would allow the implementation of such programs (DOEV, 1998a, 1998b, 1999). Lacking from the school system’s perspective were suitable programs for intervention that matched their needs.
The research response

A review of the intervention literature in the affective domain found that universal programs addressing emotional health in late childhood and early adolescence were virtually non-existent (Roberts, 1999). In most instances, the target populations for intervention research have consisted of selected groups of young people who have been identified as either at risk or have been diagnosed as having a particular psychological disorder such as anxiety or depression (Roberts, 1999). Many of these targeted intervention studies have reported positive psychological outcomes for the participants involved when compared to control groups (e.g., Brandon, Cunningham, & Frydenberg, 1999; Clarke, Hawkins, Murphy, & Sheeber, 1993; Dadds, Spence, Holland, Barrett, & Laurens, 1997; Gillham, Reivich, Jaycox, & Seligman, 1995; Jaycox, Reivich, Gillham, & Seligman, 1994).

In response to the needs of the school system, Brandon and Cunningham (1999a, 1999b) developed the Bright Ideas program as a universal health promotion program for young people in school settings. Bright Ideas was directly modelled on the cognitive attribution component of the Penn Prevention Program (PPP) (Jaycox et al., 1994; Seligman, 1995). The PPP was developed in the United States as an indicated depression intervention for adolescents aged 10 to 13 years and has been cited as exemplary practice in intervention research for this age group (Durlak & Wells, 1997a). Moreover, the efficacy of the PPP has been demonstrated in controlled trials whereby, compared to the control group, significant reductions in depression and pessimistic attributions for the intervention group were evident at post-test, and at 6-monthly follow-up periods over two years (Jaycox et al., 1994; Gillham et al., 1995). More recently, the PPP has been referred to as the Penn Optimism Program (POP) (Shatté, Reivich, Gillham, & Seligman, 1999). This name change reflects a changed focus in the psychological literature from the potential health promotion benefits of learned optimism as distinct from an exclusive focus on the program as a preventive intervention program (Seligman, 1995). The name change also reflects the idea that emotional well-being is not simply the absence of psychological distress.

The major element of the PPP is a cognitive reattribution component that was modelled on Ellis’ (1962, 1975) rational emotive therapy (RET) techniques and his ABC(DE) model of emotional disturbance. Ellis (1962) maintained that it is beliefs (B) about events rather than actual or activating events (A) that determine behavioural and emotional consequences (C). Disputing (D) or questioning dysfunctional beliefs and replacing these beliefs with more adaptive beliefs is hypothesized to result in more constructive emotional and behavioral effects (E). Cognitive restructuring in the Bright Ideas program and the PPP are directly based on the ABC(DE) model. In both programs, children are taught how to become aware of their self-talk (automatic thoughts) and are assisted in identifying pessimistic and dysfunctional attributions along the dimensions of internal (e.g., it’s all my fault), stable (e.g., this will last forever), and global (e.g., this affects all areas of my life) causes within an ABC framework. Children are then encouraged to dispute pessimistic attributions and generate and evaluate equally if not more plausible optimistic attributions. In no way are attempts made to alter the accuracy of situations or to downplay the severity of some negative events in children’s lives.
Furthermore, because some children are prone to thinking of the worst possible consequences of events (i.e., they tend to catastrophise negative life events), children are taught the skills of decatastrophising. This skill involves realistic perspective taking through an evaluation of best, worst, and most likely subsequent scenarios.

Program description

The *Bright Ideas* (Brandon & Cunningham, 1999a, 1999b) program teaches the skills of optimistic thinking and was based on the ideas expressed in the book, *The Optimistic Child: A proven program to safeguard children against depression and build lifelong resilience* (Seligman, 1995). The program consists of a detailed and structured facilitator’s manual of six weekly sessions (plus two additional sessions involving reinforcement and practice) and contains all the materials required to implement the program (Brandon & Cunningham, 1999a). A student workbook accompanies the manual (Brandon & Cunningham, 1999b).

The program was developed for Australian children and adolescents and learning is facilitated via developmentally appropriate and culturally engaging cartoons, stories, hypothetical examples, practice exercises and role-plays. The use of fictional cartoon characters that allow children to respond to hypothetical events through the eyes of a third person was deemed important because Australian youth are more comfortable discussing their thoughts and feelings in relation to hypothetical rather than real situations, and especially so when in peer-group situations (Fuller, 1998). A further unique feature of the program is that continuity of the six one-hourly weekly sessions is achieved through a brief story chapter accompanying each session on the exploits of Newman, the alien character that was sent to earth to spy on the way humans think. Table 1 outlines the content and topics covered in the first six sessions of the *Bright Ideas* program.

The four basic skills of optimistic thinking that are covered in the *Bright Ideas* program have been summarised by McWhirter and colleagues (McWhirter, McWhirter, McWhirter, & McWhirter, 1998) as:

1. **Listening to our self-talk.**
   When negative events happen, an internal dialogue occurs in which many thoughts about these events are constantly occurring in our minds. These thoughts are our self-talk. The first step in learning to think more optimistically is to listen to, and become aware of, the negative thoughts we say to ourselves (i.e., our self-talk) about the situations or challenges that we are facing. A critical skill in learning to think more optimistically is recognizing that changing our self-talk can lead to changing the way we feel about events and how we might respond to these events.

2. **Evaluating thoughts.**
   This skill involves evaluating the accuracy of our self-talk through gathering evidence to support or challenge our pessimistic and habitual self-talk. The three attributional dimensions of stability (permanent or temporary), globality (pervasive or specific), and internality (self- or other-blame) provide a framework for evaluating self-talk.
### Table 1

**Outline of topics and session aims from the Bright Ideas program**

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<th>Session</th>
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| 1. The connection between thoughts and feelings | - To understand that events or situations do not directly cause feelings.  
- To examine how feelings are connected to our thoughts (self-talk).  
- To learn that we are in control of our thoughts and hence our feelings. |
| 2. Different self-talk leads to different feelings | - To look at how different thoughts lead to different feelings.  
- To foster an understanding of optimistic and pessimistic thoughts. |
| 3. Lasting and temporary thoughts | - To look at the difference between lasting and temporary thoughts. |
| 4. Checking your ideas | - To encourage students to consider their ideas and to evaluate them before accepting them or reacting to them |
| 5. Why did this happen? | - To help students recognise that blaming themselves or others for negative events is often inappropriate and leads to negative feelings |
| 6. Get real – Stop thinking the worst! | - To foster an awareness of catastrophising (i.e., making things into a catastrophe)  
- To teach students how to keep situations in perspective |

   When negative events happen, more accurate explanations for these events are frequently possible. Learning to dispute or challenge our immediate chain of negative thoughts by generating more alternate positive and realistic explanations for such events improves the way one feels about the event, and how one subsequently copes.

4. Decatastrophizing.
   Some individuals always think the worst or make a catastrophe of any negative events that happen in their lives. Decatastrophizing involves learning skills of putting things into perspective by not thinking the worst, as the worst is usually unlikely to occur.
Finally, the process of teaching optimistic thinking is formulated within Ellis’s (1962, 1998) REE framework. Figure 1 provides a specific illustration the ABC(DE) process that is used within the program.

**Figure 1**
Illustration of the ABC(DE) process.
*Note:* —— pessimistic thinking; —— optimistic thinking

**School-based program implementation**

The fact that the Bright Ideas program was embedded in Ellis’ (1962, 1975) rational emotive therapy (RET) techniques and his ABC(DE) model of emotional disturbance was of particular interest in the context of translating an indicated program into a universal one in a classroom setting. Since RET was originally
formulated in classroom settings as Rational Emotive Education (REE) (Ellis, 1998), the efficacy of REE had been demonstrated in both indicated and universal populations of 4th- to 12th-grade students (Hajzler & Bernard, 1991). The overall aim of REE approaches is to engender a sense of control over one’s thoughts, feelings, and behaviours (i.e., increase coping self-efficacy beliefs) through disputing irrational beliefs so that more realistic and functional appraisals of situations are made that result in more adaptive coping responses. In a meta-analysis of 177 mental health preventive interventions, Durlak and Wells (1997b) concluded that programs employing cognitive-behavioural forms of intervention (e.g., REE) were nearly twice as effective as those programs utilizing non-behavioural techniques (e.g., group discussion).

In commenting on preventive programs in school settings, Clarke et al. (1993) stated: “It is likely that the least intrusive and lowest-cost intervention with demonstrated effectiveness will ultimately have the greatest chance of widespread adoption in real-life school settings” (p. 185). Similarly, following her review of intervention programs in school settings, Roberts (1999) highlighted important areas that needed to be redressed in future health promotion research by noting that research must pay attention to “the effective integration of prevention programs into school curriculums; determining the essential elements, length, and mechanisms of change of effective programs; and determining the most appropriate group facilitators” (p. 55). Essentially, questions of cost are inextricably tied to the amount of training required for facilitators, the size of the group receiving the implementation and the selection of group facilitators. A review of the literature found that facilitator-training times ranged from a low of 3 hours to a high of 40 hours. Equally, group sizes ranged from 5 students to 18 students. With the exception of two studies in which school-based psychologists and counsellors were group facilitators, all of the other interventions relied on outside facilitators (see Cunningham, 2002a). If questions of cost were to be addressed, then intervention process models need to consider modes of delivery of programs that rely on resources available at the school level and to explore group sizes that may be equally effective in achieving program outcomes.

In the school context, the natural organisational unit is the class group, and apart from school-based psychologists, the natural facilitator is the class group teacher. While the optimal group size for program implementation remains to be established, class sizes in Victorian primary school are generally smaller than most of their overseas counterparts. Given that most class groups do not exceed 25 students, the possibility exists for implementing health promotion programs to whole-class groups. In addition, there are a number of potential benefits that might result through the involvement of teachers in program implementation. Firstly, teachers would be in a position that would allow the frequent modelling and practise of cognitive-behavioural techniques in the classroom, and hence the need for booster sessions may not be so critical. Secondly, the programs are more likely to be owned within the communities for which they were intended when teachers have involvement in their implementation. Thirdly, teachers bring to the process their knowledge of students and their expertise in classroom learning and dynamics. This expertise may be particularly relevant to reducing the required time spent training facilitators. For example, Shochet et al. (1999) report that much of their training was focused on
techniques for managing disruptive behaviour and ways of encouraging non-participating students, processes that are very familiar to teachers. Finally, a controversial meta-analysis of 42 studies by Durlak (1979) found that, when comparing studies of the efficacy of professionally trained psychological health professionals to paraprofessionals working in mental health therapy, the outcomes achieved by paraprofessionals were equal, if not superior, to those achieved by the professionals. Hattie, Sharples and Rogers (1984) reached a similar conclusion in their replication meta-analysis of the Durlak (1979) study.

Based on considerations of cost and consistent with the Victorian school system’s dual aims of proactively involving both classroom teachers and school psychologists in health promotion programs (DOEV 1998a, 1998b, 1999), the preferred model for implementation of the Bright Ideas program was by school psychologists in conjunction with the class teacher to whole class groups of 5th- and 6th-grade children as part of the regular school curricula. This approach combined the skills of school psychologists and their greater familiarity with the techniques and principles of RET, together with teachers’ knowledge of students and classroom dynamics. The collaboration also maintained a reasonable student to facilitator ratio, which did not exceed 15:1 and was frequently lower. In particular, longer-term benefits of the program were expected beyond the length of the program because of classroom teachers reinforcing, practicing, and modelling the program skills within the context of everyday situations in school life.

**Empirical support for the efficacy of the Bright Ideas program**

Pilot studies using the Bright Ideas program with 5th- and 6th-grade students in indicated (Brandon, Cunningham, & Frydenberg, 1998) and universal (Cunningham, Brandon, & Frydenberg, 1999) settings provided preliminary evidence of the efficacy of the program in producing post-program changes in coping resources (i.e., increased coping self-efficacy beliefs and reduced reliance on non-productive coping behaviours including self-blame). In the Brandon et al. study, 110 5th- and 6th-grade children were screened on their responses to the Children’s Attributional Style Questionnaire (CASQ). The 38 children who indicated a depressive or pessimistic attributional style were assigned to three program-participation groups of 11-13 students. Brandon then implemented the Bright Ideas program to these three groups during regular school hours. Following participation in the program, children reported significant reductions in depressive attributions and in the utilisation of the non-productive coping strategies of worry and self-blame as measured on the Adolescent Coping Scale (ACS). Importantly, these program benefits were maintained three months later. Similar results were found when classroom teachers implemented the program as a universal program to whole class groups of 5th- and 6th-grade students (Cunningham et al., 1999). In particular, this study not only supported the efficacy of classroom teachers in program facilitation but also resulted in modifications and revisions to the facilitator’s manual and student workbook so that the program was more amenable to implementation by school-based personnel to whole class groups.

Interpretations from the pilot studies (i.e., Brandon et al., 1998; Cunningham et al., 1999) were limited because of the failure to incorporate control groups. A
larger study in which the Bright Ideas programs was implemented by school psychologists together with 5th- and 6th-grade teachers compared the coping responses of 160 children in 8 class groups to 135 children in an equal number of wait-list control classes (Cunningham, Brandon, & Frydenberg, 2002). The response rate in this study was 81 percent. As expected, post-test responses showed that, when compared to children in the control classes, children who participated in the program reported significant improvements in coping self-efficacy and reductions in depressive attributions and the use of the non-productive coping strategies of worry, wishful thinking, not coping, and ignoring the problem. These outcomes were mostly replicated and extended in a study involving 550 children from 36 classes in 14 primary schools (Cunningham, 2002a) in which the response rate was over 80 percent. In addition to collecting pre- and post-test data, data was also collected 3 months after the completion of the program. Depressive attributions (i.e., the CASQ) were not included in this study due to concerns about the validity of this measure (see Cunningham, 2003). Model implied growth trajectories from latent curve analyses revealed that children who participated in the program increased in coping self-efficacy beliefs over time, while coping self-efficacy beliefs for non-program children decreased over this time. Conversely, program children decreased their reliance on non-productive coping over time whereas non-program children increased their reliance on these strategies in this period. Finally, both program and non-program children reported decreases in the use of productive coping strategies over time. However, the rate of decrease in productive coping was significantly less for program children that for children who did not participate in the program.

A recent trial of the efficacy of the Bright Ideas program (Craig, 2004) in which class teachers implemented the program compared the pre- and post-test responses of 37 Year 6 program participants to a wait-list control group of 22 children. Due to school interruptions, the last two sessions of the program were omitted. These additional sessions give children opportunities to practise and reinforce program skills. The findings from this study showed that children who participated in the program reported significantly higher levels of mastery than the control group. In addition, the trends in the data for coping self-efficacy approached significance.

Concluding comments

From an intervention perspective, the findings reported support the feasibility of implementing low-cost, non-intrusive programs in school settings that promote emotional health and well-being in young people. Both sides of the school-research partnership contributed in important ways to the success of the implementation. In particular, the school system identified the need to redress the emotional health or resilience of all students and provided critical resources in terms of school personnel that made implementation on a broader scale feasible. The researchers were able to provide an intervention program that was based on sound principles and that met the identified needs of the system. In addition, the researchers were in a position to evaluate the efficacy of the intervention.

From a theoretical perspective, Lazarus (1993) maintained that “Whatever the method, to change an emotion one must change the appraisal, which is its proximate
cause, whether the appraisal is realistic or merely an illusion (Lazarus, 1993; p. 35). Consistent with this perspective, RET stresses the importance that cognitions play in influencing emotional and behavioural outcomes. In his development of RET, Ellis (1962; 1975) demonstrates how, through this approach, individuals gain a degree of control over the attributions and appraisals they make, and, through engendering a sense of control over their thoughts, feelings and behaviours, they are able to generate more realistic and functional appraisals so that the coping responses derived from these appraisals are better suited to the particular life event generating the stress.

Unlike many research programs conducted in schools, the number of schools who volunteered for participation in the larger studies (Cunningham, 2002a, 2002b) exceeded the capacity of the research resources available. In addition, the participation rates of individual students, which were dependent on parental consent and student assent, averaged 80%, approximately four times the rate commonly reported in intervention research (Coie et al., 1993). This has implications for the findings from the research. Many years ago, Campbell and Stanley (1972) stated:

Consider the implications of an experiment on teaching in which the researcher has been turned down by nine school systems and is finally accepted by the tenth. This tenth almost certainly differs from the other nine, and from the universe of schools to which we would like to generalize. It is, thus, nonrepresentative, and the effects we find, while internally valid, may be specific to such schools (p. 19).

The high participation rates of individuals within the schools, together with the lack of refusals by schools to engage in the research, adds considerable external validity to the findings from the studies reported here. It seems reasonable to conclude that the results of the study would replicate across many independent samples of Grade 5 and 6 classes within Australia. Furthermore, because the program was adapted from a program originally developed for North American children, it is likely that the results would generalize to a number of other populations when using culturally appropriate examples in the program materials. The high response rates may also reflect the degree to which the goals of the research were shared and owned by the communities in which the intervention occurred (Reiss & Price, 1996). In Victoria, the school system and school communities were actively promoting, supporting and seeking ways to enhance the coping resources of young people in response to stress in their lives (DOEV, 1998a, 1998b, 1999). This enabled the establishment of school-research partnerships in which the goals of the research were jointly owned. It has also been argued that successful school-research partnership teams require at least one member of the research team to have significant knowledge of the system or social unit in which the intervention occurs (Elias, 1991; Weissberg & Greenberg, 1999). Perhaps the success in recruiting the samples for the larger studies was partly due to the fact that the researcher had over 20 years experience in the school system prior to conducting these studies. It would be beneficial to examine the effects on participation rates and outcomes by replicating the study in Australian states where state government policies were not actively promoting the program objectives and providing additional resources (e.g., school-based psychologists).
While the findings from empirical studies supported the efficacy of the *Bright Ideas* program as a universal health promotion intervention, caution must be expressed in relation to any findings involving depressive attributions due to concerns about the validity of this measure (see Cunningham, 2003). Furthermore, universal programs within a school’s curriculum need to be justified as widely beneficial and the influence of this program on other domains (e.g., academic and psychosocial factors) is unknown. For example, while the primary aim of teaching optimistic thinking skills is increasing coping skills and resources in early adolescence, improvements in student motivation for learning and classroom behaviour and dynamics, together with the acquisition of meta-cognitive skills, are all additional expected benefits from developing a more optimistic explanatory style (Dweck & Sorich, 1999). Further research is now needed to determine these potential program benefits.

References


