Evidence-based life coaching for senior high school students: Building hardiness and hope

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Objective: *To extend the knowledge base on the use of life coaching as an applied positive psychology. Studies to date have utilised community samples with participants of varying ages and most research has used adult community samples. The present study is unusual in that it examined the efficacy of an evidence-based (cognitive-behavioural, solution-focused) life coaching programme in enhancing cognitive hardiness and hope in senior female high school students.*

Design: *In a randomised controlled experimental design, 56 female senior high school students (mean age 16 years) were randomly allocated to an individual life coach (N=28) or to a wait-list control group (N=28).*

Method: *10 teachers were trained in theories and techniques of coaching psychology through a manualised 'Teacher as Coach' workshop. Participants were randomly allocated to a Teacher-Coach with whom they met individually for 10 sessions over two school terms.*

Results: *Life coaching was associated with significant increases in levels of cognitive hardiness and hope, and significant decreases in levels of depression.*

Conclusions: *Life coaching may be an effective intervention for high school students.*

Keywords: Evidence-based life coaching, hope theory, cognitive hardiness, resilience.

LIFE (OR PERSONAL) COACHING can be understood as a collaborative, solution-focused, results-orientated systematic process, in which the coach facilitates the enhancement of the coachee's life experience, goal attainment and well-being and fosters the self-directed learning and personal growth of the people from normal (i.e. non-clinical) populations.

Recent studies have provided preliminary evidence for the efficacy of evidence-based life coaching. These studies, from the emerging field of coaching psychology, have indicated that an evidence-based life coaching intervention can enhance goal striving, well-being and hope (Green, Oades & Grant, 2006), increase goal attainment and satisfaction with life, increase perceived control over environmental factors and result in greater openness towards new life experiences (Spence & Grant, 2005). In addition, life coaching can increase quality of life, and reduce depression anxiety and stress (Grant, 2003). To date, such life coaching research has focused on adult, community populations.

Within the life coaching industry, varying niche applications have developed, such as retirement coaching, relationship coaching, and financial coaching. One emerging specialised area lies within the educational setting. Life coaching within educational settings is distinct from educational coaching (or tutoring) which is specifically aimed at improving academic performance.

A pilot life coaching study conducted by Campbell and Gardner (2005) in an educational setting examined the effects of life coaching on high school students' personal and academic development (Year 12). Their findings indicated that life coaching may have the potential to build resilience and well-being in young people, and help students cope with the stresses of high school. In the Campbell and Gardner (2005) pilot study, only 12 students took part in the

life coaching programme, and the coaching was delivered by the school counsellor. The present study sought to extend the work of Campbell and Gardner (2005) by training teachers to be the life coaches and by using a larger sample size.

The challenge of senior high school

Senior high school (15 to 18 years) is a difficult time for many students. Students frequently feel under considerable pressure to perform well academically, as performance at high school impacts on university entry and future career prospects. A large-scale study in Sydney, Australia, involving over 400 high school students showed that over 50 per cent of respondents had levels of anxiety, depression and stress that were above the 'normal' range (Smith & Sinclair, 2000). High school students typically worry about a range of issues including academic performance, relationships, family, and friends and peers (Amen & Reglin, 1992).

Interventions that have attempted to help students deal with the challenges of high school typically focused on identifying students with problems (Tait & Entwistle, 1996) and delivering study skills training (Zimmerman, Bonner & Kovach, 1996). However, with the rise of the positive psychology movement, there is interest in developing interventions that build high students' resilience and well-being, rather than merely treating symptoms of dysfunctionality. Resilience has been described as an individual's capacity for maintenance, recovery or improvement in mental health following life challenges (Ryff, Singer, Dienberg Love & Essex, 1998).

Cognitive hardiness

Cognitive hardiness is an important dimension of resilience (Bonanno, 2004).

Hardiness, originally described by Kobasa and Maddi (1977), comprises an individual's *commitment* to their life goals, a sense of *control* or belief that they can control life events, and a perception of change as a *challenge*. Thus hardiness assists individuals to face stressful situations and provides protection from possible damaging effects (Maddi, 2002).

Indeed, it has been shown that hardiness provides a buffering effect to stress and as such protects mental health (Oullette, 1993). College students high in hardiness tend to have more effective coping strategies, lower levels of stress and better academic grades (McHenry, 1993). Furthermore they perceive potential future stressors as being more controllable (Gerson, 1998). However, much resilience and hardiness research in student populations has focused on college or university students (e.g. Mathis & Lecci, 1999; Lindberg, 2002) or young elementary students (Borman & Overman, 2004), and such work has tended to focus on dysfunctional or at-risk populations (e.g. Nettles, Mucherah & Jones, 2000).

There has been little work in looking at the enhancement of hardiness in 'normal' high school students, although the hardiness construct seems useful in assisting high school students in dealing with both school-related stressors such as exams and the more personal issues associated with adolescence. The present study sought to address this gap in the literature.

Hope

Hope is defined as 'the process of thinking about one's goals, along with the motivation to move toward those goals (agency) and the ways to achieve those goals (pathways)' (Snyder, 1995, p.355). Hope as a cross-situational construct has been shown to correlate positively with self-esteem, perceived problem-solving capabilities, perceptions of control, optimism, positive affectivity, and positive outcome expectancies (Synder *et al.*, 1991).

Hope has predicted problem-focused coping and mental health outcomes (Snyder *et al.*, 1991). Additionally Hope Scale scores have correlated positively with perceived scholastic competence (Onwuegbuzie & Daley, 1999), greater academic satisfaction (Chang, 1998), and hope has been shown to

predict better overall grade point averages (Snyder *et al.*, 2002).

It has been found that thinking about goals immediately triggers the agentic and pathways thoughts that are both necessary for goal-directed behaviour. Thus helping individuals to articulate their goals, as is required in an evidence-based life coaching intervention, may enhance hope (Snyder, 1999). Snyder (2000) argues that hope enhancement is best achieved by integration of solution-focused, narrative and cognitive-behavioural interventions with hope therapy designed to 'help clients in conceptualising clearer goals, producing numerous pathways to attainment, summoning the mental energy to maintain the goal pursuit and reframing insurmountable obstacles as challenges to be overcome' (p.123). These are the key features of the evidence-based approach to life coaching used in the present study.

Aims of the research

The present study sought to investigate the impact of an evidence-based life coaching programme, in an educational setting utilising a randomised, wait-list control design with a sample of high school students who were not dysfunctional or at-risk. It was anticipated that the life coaching programme would be associated with increases in cognitive hardiness, hope and decreases in depression, anxiety and stress.

Method

Participants

Participants were 56 adolescent females (16 to 17 years, mean age=16.09) from a normal (non-clinical) population. Their scores on the Depression, Anxiety and Stress Scale (DASS-21, Lovibond & Lovibond, 1995) all fell within the normal range of psychopathology. Participants were all senior high school students in Year 11 attending a private girls' high school in Sydney, Australia. The 56 participants were randomly assigned to Group 1 (Coaching Group, *N*=28) or Group 2, a Wait-list Control Group (Control Group, *N*=28) and completed self-report measures at Time 1 (pre-intervention) and Time 2 (post-intervention). Of the 56 participants assigned to take part in the study, seven participants (four control, three experimental) withdrew from the study prior to completion of the intervention (before Time 2). It should be noted that participants were volunteers and thus self-selected. Sample size was sufficient to detect a medium to large effect size (Cohen, 1977).

Experimental design

A between-subjects design was utilised. Hope, cognitive hardiness, depression, anxiety and stress of both groups were assessed at Time 1 and Time 2. Academic performance and goal attainment measures were not taken.

Procedure

The life coaching programme was advertised through an information session held during school hours with all Year 11 girls in attendance. Additionally, the programme was advertised in the school newsletter and at an information evening for parents of Year 11 students held at the beginning of the year. Interested students were provided with a Participant Information Sheet and a Consent Form for both themselves and their parents to sign if they wished to participate in the study.

Participants were assigned to enter the Coaching Group or the Control Group utilising a wait-list control, randomisation procedure with 28 participants in each group. Participants assigned to the Coaching Group completed a 10-session life coaching programme while those participants randomly assigned to the Control Group completed a 10-week waiting period concurrently.

Participants in Group 1 were randomly assigned to a Teacher-Coach. Ten teachers were trained as coaches. The Teacher-Coaches had been trained in the theories of Coaching Psychology through two half-day workshops conducted by the School Counsellor who has a Masters in Applied Science

(Coaching Psychology). The workshop was based on a manualised programme (available from the authors).

The coaching programme

The life coaching programme consisted of ten individual face-to-face coaching sessions with the allocated Teacher-Coach, and was conducted over a period of two school terms (28 weeks including a two-week semester break). The life coaching programme involved participants holistically examining aspects of their lives and identifying two issues that they wished to be coached on; one school-related and one personal. The programme was based on a solution-focused cognitive-behavioural framework that has been utilised in two previous randomised, controlled studies on evidence-based life coaching (for details see Green, Oades & Grant, 2006; Spence & Grant, 2005). Each coaching session involved the setting of session goals, followed by a discussion of what was going on in the coachee's life. The aim of the coaching was to raise the coachee's personal awareness of their current situation. Participants were then coached to identify personal resources that could be utilised in moving towards their goals, and to develop self-generated solutions and specific action steps, systematically working through the self-regulation cycle of setting goals, developing action plans, monitoring and evaluating progress.

Measures

Participants of both groups completed all of the following questionnaires at Time 1 and Time 2.

The Trait Hope Scale (Snyder *et al.*, 1991) is a 12-item measure of the two dimensions of hope ranging from 1 (definitely false) to 4 (definitely true). It consists of four agency items (i.e. items that tap the belief in one's ability to initiate and maintain movement towards goals); four pathways items (i.e. items that tap the ability to conceptualise routes to a goal and four filler items). A total score is used as a measurement of the global concept of hope and is calculated as the sum of the eight agency and pathways items (range=8 to 32). Test retest reliabilities for the Hope Scale suggest temporal stability (.83 over a three-week interval, .73 over an eight-week period) (Synder *et al.*, 1991). Alpha coefficients for the two subscales are acceptable (agency=.71 to .77; pathway=.63 to .80) (Snyder *et al.*, 1991). The alpha coefficients in this study were .79 for agency and .80 for pathways. This instrument demonstrates both internal and temporal reliability, with two separate and yet related factors, as well as an overarching hope factor (Babyak, Snyder & Yoshinobu, 1993). Several studies have confirmed its convergent and discriminant validity (Snyder, 2000).

The Cognitive Hardiness Scale (Nowack, 1990) was utilised to measure cognitive hardiness, based on Kobasa's (1979) concept of hardiness comprising the dimension of Commitment, Control and Challenge. This measure consists of 30 items on a five-point Likert-type scale assessing personal beliefs about life. Nowack (1990) reported an internal consistency of .83. The alpha coefficient in the present study was .78.

The Depression Anxiety and Stress Scale (DASS-21; Lovibond & Lovibond, 1995) was utilised as a measure of psychopathology. The DASS-21 is designed to be used with both clinical (Brown, Chorpita, Korotitsch & Barlow, 1997) and community populations (Antony, Bieling, Cox, Enns & Swinson, 1998), uses a dimensional rather than categorical approach to mental health assessment, and views the differences between normal and clinical populations in depression, anxiety, and stress as being essentially differences of degree. As such it is a useful tool in life coaching research for screening participants in order to detect mental health issues that require referral, and for monitoring levels of depression, anxiety and stress that fall within both the normal and clinical ranges. Internal consistency (Lovibond & Lovibond, 1995) and test-retest reliability has been found to be good (r=.71 to .81; Brown *et al.*, 1997). The internal reliability in this study was .91.

Results

Before the analyses were conducted, the data was checked for violations of normality. Violations were detected on the variables of Depression and Anxiety and the appropriate non-parametric tests were utilised. Means for the Coaching Group and the Control Group on the major variables for Time 1 and Time 2 for are shown in Table 1 (alongside).

Hope

A repeated measures ANOVA revealed a significant treatment by time interaction effect for Hope, $F(1,35)=6.65$, $p<.05$. Follow-up tests revealed significant increases in Hope, $t(17)=-4.076$, $p<.001$, for the Coaching Group whereas participants in the Control Group showed no such changes.

A repeated measures ANOVA revealed significant treatment by time interaction effect for Agency, $F(1,36)=4.622$, $p<.05$. Follow-up tests revealed significant increases in Agency, $t(18)=-4.776$, $p<.001$ for the Coaching Group whereas participants in the Control Group showed no such changes. A repeated measures ANOVA revealed a significant treatment by time interaction effect for Pathways, $F(1,35)=4.98$, $p<.05$. Follow-up *t*-tests revealed significant increases in Pathways, $t(17)=-2.601$, $p<.05$ for the Coaching group whereas participants in the Control Group showed no such changes.

Cognitive hardiness

A repeated measures ANOVA revealed a significant treatment by time interaction effect for Cognitive Hardiness, $F(1,33)=7.631$, $p<.05$. Follow-up tests revealed significant increases in Cognitive Hardiness, $t(17)=-8.401$, $p<.001$, for the Coaching Group whereas participants in the Control Group showed no such changes.

Depression, anxiety and ctress

The Wilcoxon Signed-Rank Test was performed to examine changes within each group over time for the variables Depression and Anxiety. Results revealed significant decreases from Time 1 to Time 2 on the variable Depression ($T=-1.968$, $p<.05$) for the Coaching Group, whereas the Control Group showed no significant change in these scores over the same period. There were no significant changes for either group from Time 1 to Time 2 for Anxiety. A repeated measures ANOVA on Stress revealed no significant treatment by time interaction. It is important to note that all participants fell within the 'normal' range of psychopathology, and thus in this respect were not an 'at-risk' or dysfunctional population.

Discussion

It has been argued that it is important to investigate holistic salutogenic approaches to health and well-being rather than focusing on issues related to overcoming dysfunction or adverse life events in at-risk populations (Linley & Joseph, 2005). The present study represents a small step in that direction by showing that a holistic life coaching intervention in a 'normal' high school population is associated with increased hope and cognitive hardiness and significant decreases in depression.

Past research has investigated the enhancement of hardiness through training programmes specifically designed to target hardiness (e.g. Khoshaba & Maddi, 2001). Maddi, Kahn and Maddi (1998) describe a four-part training programme incorporating: (i) a structured psycho-educational component; (ii) cognitive behavioural techniques such as situational reconstructing (stretching the imagination to develop a broader understanding of the stressor), focusing on bodily sensations in order to develop emotionally based insights; (iii) developing of action plans to deal with stressors; and (iv) a relapse prevention phase. Such programmes are associated with improvement in self-reported hardiness (Maddi *et al.*, 1998), improvements in college grade and retention rates, job satisfaction and health (Maddi, 2002).

Hardiness training tends to focus specifically on enhancing hardiness and overcoming stressors through a diagnostic

Table 1: Means and Standard Deviations for Major Study Variables for Times 1 and 2.

Variable	Coaching Group		Control Group	
	Time 1	*Time 2*	*Time 1*	*Time 2*
Agency	*N*=19		*N*=19	
M	21.17	24.84	20.92	18.68
SD	5.43	5.55	5.31	6.86
Pathways	*N*=25		*N*=24	
M	22.79	24.79	23.03	21.05
SD	4.68	4.28	4.22	7.63
Total Hope	*N*=25		*N*=24	
M	43.86	49.63	43.96	39.74
SD	9.35	9.36	8.70	14.27
Cognitive Hardiness	*N*=18		*N*=17	
M	88.00	108.89	88.00	99.41
SD	7.96	10.79	8.53	10.62
Depression	*N*=25		*N*=22	
M	14.87	8.63	9.36	8.33
SD	11.33	11.86	6.80	7.77
Anxiety	*N*=25		*N*=24	
M	11.07	11.00	6.82	6.22
SD	9.11	10.63	6.16	5.82
Stress	*N*=16		*N*= 18	
M	15.25	13.86	13.33	9.22
SD	7.44	10.29	8.00	7.52

psycho-educational process (Maddi, 1987). Although similar to hardiness training in some respects, the life coaching programme used in the present study differed in that it involved participants holistically examining their lives, looking for ways to enhance their life experience, rather than merely addressing issues related to distress. Participants then set goals, identified personal resources and developed goal-focused action steps. Despite the differences in emphasis, the current life coaching programme appeared to be an effective hardiness-enhancing intervention.

In regard to hope, it was found that participants who had completed the life coaching intervention reported significant increases in agency, pathways and total hope. These results are consistent with hope theory which suggests the articulation of goals stimulates hope (Snyder, 1999). In the present study, in addition to talking about their goals and action plans, cognitive-behavioural techniques were used to help participants identify positive self-talk that would help them in the goal striving process, and in this way were encouraged to increase their agentic thoughts. The use of solution-focused techniques helped participants determine possible routes to their goal, thereby increasing pathways thinking. As such, a cognitive-behavioural, solution-focused coaching intervention, such as the one utilised in this study becomes a hope-enhancing intervention. These results are consistent with Green *et al.*'s (2006) study, which also found significant increases in agency, pathways and total hope as a result of an evidence-based life coaching intervention.

Given the correlation between depression, anxiety and stress (Lovibond & Lovibond, 1995), it is interesting that this study found that only depression (not anxiety or stress) was reduced. The reason for this is not immediately clear. It may be that the items on the DASS that measure depression include questions related to pessimism about the future and being unable to be interested or involved in life, whereas the anxiety and stress scales refer to being panicky, being aware of a dry mouth, breathing difficulties, and pounding of the heart. This study specifically focused on helping participants find ways to enhance their life experience and build hope and resilience, rather than reducing stress or anxiety, thus the primary impact on psychopathology may have been a reduction in depression (which can be viewed as the opposite of hope) rather than a reduction in anxiety or stress.

A limitation in the current study is that participants were self-selected members of a specific community (all females attending a private high school), who may not be representative of the general population. Students volunteered and as such may have been highly motivated. Further, academic performance measures were not taken. This was because the participants were studying a wide range of different subjects, at varying levels of difficulty, and there was no valid or reliable means of making comparisons. In addition, no longitudinal measures were taken, thus it is not known if these results were maintained over time. However, it should be noted that in a longitudinal study, Green *et al.* (2006) found that gains from a similar life coaching programme were maintained at a 30-week follow-up.

Whereas many high school-based interventions are aimed at teaching skills targeted at enhancing academic performance, or counselling for bullying or other distressing factors, life coaching programmes have the potential to be an effective holistic mental health promotion strategy for high school students. Such positively-framed programmes, with a lack of the stigma often associated with remedial counselling, may assist in increasing long-term social and emotional well-being, provide a preventative function and potentially achieve significant savings in mental health costs. The findings of the present study suggest that meeting life's challenges with a positive and confident attitude regarding one's ability or competence to survive life challenges appears to insulate against depression. This is particularly relevant during major life transitions such as those experienced by senior high school students.

By utilising a wait-list control and an experimental design, the present study has demonstrated that life coaching can be effective for female high school students. However, it may be that the attention of a caring supportive adult alone would be sufficient to enhance hope and resilience in high school students. It is noteworthy, however, that recent research (Spence & Grant, in press; Sue-Chan & Latham (2004) has found that, in an adult sample, peer coaching was not as effective as a professionally-trained coach. Emphasising the importance of expertise in coaching, Spence and Grant (in press) argued that the presence of a supportive person was a necessary but insufficient condition for enhancing well-being and goal attainment. Future studies using high school students should extend this line of research and compare the effect of a supportive adult with participation in a life coaching programme.

Future research should also use other educational samples (e.g. students in primary and junior high school, and both males and females) and also measure academic performance. Life coaching interventions that utilised participants from one specific educational cohort would allow the accurate and meaningful comparison of academic performance. Further, studies that compared life coaching interventions with educational tutoring or positive parental involvement would provide additional information about the effectiveness of life coaching for students. In addition, it would

be useful to conduct longitudinal studies to examine if such life coaching interventions have a long-term prophylactic effect, and a follow-up study of the present intervention is planned.

Summary

This study is the first controlled study of an evidence-based life-coaching intervention for senior high school students. It provides preliminary evidence that a cognitive-behavioural, solution-focused life coaching group programme can be effective in increasing hope and cognitive hardiness, and in decreasing self-reported symptoms of depression. This study provides encouraging empirical support for the usefulness of evidence-based life coaching interventions in an educational setting. An evidence-based life coaching programme implemented in schools may provide a platform for an applied positive psychology, delivering a multitude of benefits that impact positively on students' overall health and well-being.

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