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The Effects of Covitality on Well-Being and Depression in Australian High School Adolescents

Peter Boman^{1*}, Amanda Mergler² and Donna Pennell²

¹School of Counselling, Australian College of Applied Psychology, Australia

²Department of Early Childhood and Inclusive Education, Queensland University of Technology, Australia

Corresponding author: Peter Boman, School of Counselling, Australian College of Applied Psychology, 16-20 Coglein Street, Adelaide, South Australia, Australia, Tel: +61-8-81104055; E-mail: peter.boman@acap.edu.au

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Abstract

Positive psychology is an area of increasing interest in psychological research, with studies generally focusing on an individual's strengths rather than their psychopathology. Within positive psychology, co-vitality is a new area of study that relates to the co-occurrence of human strengths. This study examined the construct of co-vitality, using the Social-Emotional Health Scale-Secondary (SEHS-S), in a population of Australian adolescents examining relationships between its four underpinning constructs (Belief-in-Self, Belief-in-Others, Emotional Competence, and Engaged Living), psychological well-being, and depression. Three hundred and sixty-one adolescents completed the SEHS-S with results demonstrating high correlations between all constructs examined. The results demonstrated that co-vitality predicted both well-being and depression. However, the combined effect of these constructs, co-vitality, was found to be a stronger predictor of psychological wellbeing and depression than the unique variance of any of the SEHS-S individual constructs. This suggests that building only one psychological strength, such as belief-in-self, might not be enough to strengthen wellbeing, or lessen depressive tendencies, in adolescents. In conclusion, it is considered that a broad range of constructs, such as those that underpin the SEHS-S, should be considered in high school intervention programs with adolescents.

Introduction

Seligman [1] suggests that the study of an individual's strengths, and what makes life meaningful, should be the focus of research into positive psychology. Covitality, although a more recent area of research, is based upon these suggestions and provides insight into how positive psychology constructs co-occur and relate to improved levels of wellbeing. Furlong [2] used the term covitality to explain this co-occurrence of positive psychology strengths based on previous research by Luthans [3] and Weiss [4]. The former was a study based on workplace performance while the latter was based in behavioural biology

and examined positive traits related to wellbeing, self-confidence, and overall health.

Furlong [2] and You, et al. [5] identified four constructs in their covitality model using a sample of United States adolescents. These were belief-in-self, belief-in-others, emotional competence, and engaged living. You et al [6], using confirmatory factor analysis, further identified 12 subscales loading onto these four constructs. Belief-in-Self was underpinned by the three internal assets of self-awareness, self-efficacy, and persistence while Belief-in-Others was underpinned by school support, family coherence, and peer support. Emotional Competence was supported by empathy, self-control, behavioural self-control and Engaged Living by gratitude, zest, and optimism. Furthermore, these four constructs together were used as a measure of social-emotional health.

The current study sought to examine the relationship in Australian adolescents between covitality and measures of wellbeing and depression. Depression was identified as an important variable to examine due to 6 to 7% of Australian adolescents, between the ages of 16 and 24, experiencing depression in any year [7]. Adolescent depression has been associated with declines in academic achievement, social functioning, school retention challenges, and other issues such as an increased risk of suicide [8-10]. In relation to well-being, an American study of 2907 youth used a self-report measure that identified participants as either languishing (mentally unhealthy), moderately mentally healthy (neither languishing nor flourishing), or flourishing (functioning positively in life) [9]. Only 38% of the adolescents reported as flourishing while 56% were moderately and 6% considered themselves to be languishing. Considering the adolescents who report as flourishing had better social-emotional health, lower depression, and less behavioral problems, it is likely that measuring the social-emotional health of adolescents will help reveal who will ultimately have better psychological and social outcomes.

Finally, the aim of this study was to expand upon covitality research and examine its effects on psychological wellbeing and depression in adolescents. It was predicted that the four covitality constructs would be positively related to psychological

wellbeing and negatively related to feelings of depression. It was also predicted that the combined effect of the four components of covitality would be a stronger predictor of both wellbeing and depression than each component individually.

Method

Participants

A total of 361 secondary students (286 females and 75 males) from a number of Catholic high schools in Brisbane, Australia, participated in the study. The participants' ages ranged from 12 to 18 years with a mean of 14.1 years. The majority of participants identified either as Caucasian Australian (70.9%) or Asian (11.9%). All Australian high school years were represented, namely, Year 8 (38.8%), Year 9 (16.6%), Year 10 (27.4%); Year 11 (8.9%), and 8.3% in Year 12.

Measures

Social-emotional health scale-secondary (SEHS-S): Consists of the four positive psychology factors of Belief-in-Self, Belief-in-Others, Social-Emotional Competence, and Engaged Living. As stated above, Belief-in-Self is underpinned by self-efficacy and self-awareness, which are scored on a 4-point Likert scale (1=Not at all true to 4=Very much true), and persistence which is scored on a 4-point Likert scale (1=Not at all like me to 4=Very much like me). Belief-in-Others is underpinned by Social-Emotional Competence is underpinned by Engaged Living is underpinned by gratitude and zest (1=not at all, 2=a little, 3=moderately, 4=quite a bit, 5=extremely)(1=not true of me, 2=sort of not true of me, 3=sort of true of me, 4=true of me). In this study, the Cronbach alphas were 0.83 for Belief in Self, 0.71 for Emotional Competence, 0.83 for Belief in Others, and 0.86 for Engaged Living.

Psychological wellbeing (PWB): Consists of measures of high levels of life satisfaction and levels of positive and negative affect. In line with Furlong [2] study, five items from the Student Life Satisfaction Scale (SLSS) [11] was used to measure life satisfaction while positive and negative affect were measured using nine items from the Positive and Negative Affect Scale for Children (PANAS) [12]. The former used a 4-point Likert scale (1=not at all true, 2=a little true, 3=pretty much true, 4=very much true) while the latter used a 5-point Likert scale (1=not at all, 2=a little, 3=moderately, 4=quite a bit, 5=extremely). The Cronbach α for Subjective Well-being in this study was 0.83.

The center for epidemiologic studies depression scale (CES-D): The CES-D [13] is a general screener for feelings of depression. Participants were asked to rate to what degree each of 20 statements would apply to them over the previous week. It uses a 4-point Likert scale (0=rarely, or none of the time [less than 1 day], 1=some of, or a little of the time [1-2 days], 2=occasionally, or a moderate amount of the time [3-4 days], 3=most, or all of the time [5-7 days]). The reliability of the CES-D was demonstrated in this study by a Cronbach α of 0.91.

Procedure

Participants were accessed through their school emails after permission was given by Principals to do so. The school staff sent out the relevant email to maintain a distance from the researchers. The students completed the online survey in a number of class periods in the schools' computer labs. The study was approved by the Queensland University of technology Human Ethics Committee.

Results

As predicted, the four covitality constructs were positively related to psychological wellbeing and negatively related to feelings of depression (**Table 1**).

Multiple Regressions

Two standards multiple regression was performed with subjective well-being as the dependent variable in one, and depression in the other. The independent variables in both were the underlying constructs of co-vitality: belief-in-self, belief-in-others, emotional competence, and engaged living. Standard multiple regressions were used for the analyses as no a priori hypotheses had been made to determine the order of entry of the predictor variables [14]. A total sample size of 107 participants was needed, stipulated by G*Power 3 for this study design with four predictor variables (setting the a priori effect size to 0.15, p-level to 0.05, power to 0.80) [15]. That is, with 361 participants, the sample size was sufficient to run the analyses. All statistical assumptions were also met so the removal of any cases was unnecessary [16].

Prediction of psychological wellbeing and depression by the four covitality constructs: As predicted, the results of the regression analysis model revealed that the combination effect of the four covitality constructs was a stronger predictor of both psychological wellbeing and depression (**Tables 2 and 3**). The overall regression model for predicting psychological wellbeing was significant ($R^2=0.47$, $F(4, 356)=79.04$, $p<0.001$), with the four covitality variables explaining 47% of the variance in the psychological well-being. Belief-in-others ($t=4.58$, $p<0.001$), belief-in-self ($t=4.76$, $p=0.001$) and engaged living ($t=7.60$, $p<0.001$) all significantly contributed to reported levels of psychological wellbeing. The unique variance associated with engaged living, belief-in-others, belief-in-self, and emotional competence ranged from 9% to less than 1%. Overall, only 15% of the total variance in psychological wellbeing was explained by the unique individual variance of the four constructs leaving 32% of the variance explained by the combined effects of these four factors.

The overall regression model for predicting depression was significant ($R^2=0.25$, $F(3,357)=39.83$, $p<0.001$), with three of the four covitality variables explaining 25% of the variance in depression. Engaged living ($t=-2.42$, $p<0.05$), belief-in-self ($t=-5.95$, $p<0.001$), and belief-in-others ($t=-2.10$, $p<0.05$) all

significantly contribute to lower levels of depression while emotional competence was not significant.

Table 1: Means, Standard Deviations, and Intercorrelations for the Four Underlying Co-vitality. Components and Co-vitality, Depression and Subjective Well-being.

Variables	Belief in self r (p)	Emotional competence r (p)	Belief in others r (p)	Engaged Living r (p)	Co-vitality r (p)	Depression r (p)	Subjective Well- being r (p)
Belief in self	1.00						
Emotional competence	0.44 (<0.001)	1.00					
Belief in others	0.49 (<0.001)	0.40 (<0.001)	1.00				
Engaged Living	0.53 (<0.001)	0.30 (<0.001)	0.51 (<0.001)	1.00			
Co-vitality	0.81 (<0.001)	0.62 (<0.001)	0.78 (<0.001)	0.83 (<0.001)	1.00		
Depression	-0.47 (<0.001)	-0.08 (0.122)	-0.35 (<0.001)	-0.38 (<0.001)	-0.44 (<0.001)	1.00	
Well-being	0.54 (<0.001)	0.31 (<0.001)	0.53 (<0.001)	0.61 (<0.001)	0.67 (<0.001)	-0.38 (<0.001)	1.00
Means	25.42	28.17	28.58	30.30	112.46	17.60	39.42
Standard Deviations	5.09	3.48	4.82	6.59	15.47	11.51	6.48

The unique variance associated with engaged living, belief-in-others, and belief-in-self ranged from 9% to 3%. Overall, only 9% of the total variance in depression was explained by the unique

individual variance of the three constructs leaving 16% of the variance explained by the combined effects of these three variables.

Table 2: Standard multiple regressions of psychological well-being and the four co-vitality constructs.

Variables	B	B	Sr2 (Unique)	R	R2	Adjusted R2
Model 1				0.69	0.47***	0.46***
Emotional competence	0.02	0.01	<0.01			
Engaged living	0.36	0.37	0.09***			
Belief in self	0.3	0.24	0.03***			
Belief in others	0.3	0.22	0.03***			

Note: Correlations marked with * were significant at $p < .05$, those with ** at $p < .01$, and those with *** were significant at $p < .001$; sr2 = the squared semi-partial correlations indicate the unique variance predicted by the independent variable.

Table 3: Standard multiple regression of depression and the four co-vitality constructs.

Variables	B	B	sr2 (unique)	R	R2	Adjusted R2
Model 2				0.5	0.25***	0.24***
Engaged living	-0.24	-0.14	0.01*			
Belief in self	-0.76	-0.34	0.07***			
Belief in others	-0.28	-0.12	0.01*			

Note: Correlations marked with * were significant at $p < 0.05$, those with ** at $p < 0.01$, and those with *** were significant at $p < 0.001$; sr2 = the squared semi-partial correlations indicate the unique variance predicted by the independent variable.

Discussion

Firstly, the current study had several limitations. Firstly, the SEHS-S has not yet been validated for Australian adolescents and some circumspection in interpreting the results. Secondly, there was unequal numbers of male (75) and female (286) participants and this gender difference may not reflect relationships between the variable as accurately for males. Also, there were more 12/13-year-old students (148) than 16/17-year-old students (55) which may have affected the results.

In the study, co-vitality was defined as a set of positive intrapersonal assets and interpersonal resources for adolescents that are likely to increase the chance of positive developmental outcomes [4]. The study's outcomes were also in line with previous studies in the area that revealed positive relationships between the four covitality constructs and social-emotional outcomes [7,17]. Even though there were some limitations in the study, the results were in line with the predicted outcomes and revealed that covitality, as represented by the combined effect of belief-in-self, belief-in-others, emotional competence, and engaged living, were positively related to psychological wellbeing and negatively related to depression. It also revealed that covitality was a stronger predictor of psychological wellbeing and depression than the individual constructs.

The first multiple regression revealed that engaged living was the most significant predictor of psychological well-being. Past research has previously revealed that meaningful engagement promotes wellbeing in adolescents [18]. Interestingly, emotional competence alone was not a significant predictor of depression. It may be that the constructs measuring emotional competence (emotional regulation, empathy, and delay of gratification) relate more to externalising related behaviors rather than internalizing disorders including depression.

The second multiple regression revealed that belief-in-self was the most significant predictor of depression. Previous studies that have indicated that self-belief enables an adolescent to self-regulate and apply emotional and psychological control over their lives [19]. Other studies have also revealed that a lack of self-belief is also related to higher levels of depression [19,20].

The aim of this study was to examine whether the construct of covitality was positively related to psychological wellbeing, and negatively related to depression, in adolescents. The results suggest that covitality, and its underlying constructs, were predictive of better life outcomes for adolescents. Finally, more covitality studies are necessary to see if the current results can be replicated. This is an important aim as building optimism, for example, while neglecting other positive psychology strengths may not provide enough social-emotional health for adolescents to flourish.

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