Positive Psychology Course and Its Relationship to Well-Being, Depression, and Stress

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Abstract
The purpose of this study was to determine the influence of a positive psychology course on student well-being, depressive symptoms, and stress in a repeated measure, nonequivalent control design. As hypothesized, the positive psychology students reported higher overall happiness, life satisfaction, routes to happiness, and lower depressive symptoms and stress compared to students in the control course. These findings replicate previous research on the benefits of positive psychology courses on well-being and extend previous research by showing that the benefits generalize to other reliable and multidimensional measures of happiness as well as measures of depression and stress. Our results indicate that a positive psychology course may be one way to improve students’ mental health.

Keywords
positive psychology, undergraduates, well-being, stress, depression

Positive psychology courses with a unique approach to improving the human condition are increasingly making their way into college course offerings (Goldberg, 2006; Ruark, 2009). Positive psychology courses focus on the empirical investigation of positive emotions, attributions, character strengths, human protective institutions, and positive psychology exercises (PPEs) in improving individual well-being (Diener, Suh, Lucas, & Smith, 1999; Emmons & McCullough, 2003; Mongrain & Anselmo-Matthews, 2012; Seligman, 2011; Seligman, Steen, Park, & Peterson, 2005; Sin & Lyubomirsky, 2009).

In concordance with research demonstrating a well-being benefit from exposure to positive psychology topics and from engaging in certain PPEs, researchers report well-being benefits for students in the context of positive psychology courses (e.g., Fordyce, 1977; Maybury, 2012). For example, Maybury (2012) reported that students who took a positive psychology course that included PPEs shown previously to improve subjective well-being (e.g., identifying and strengthening signature strengths, beauty and gratitude journal, and a gratitude letter; Seligman et al., 2005) as engaged learning activities reported increases in subjective happiness, mindfulness, self-actualization, and hope from pretest (beginning of course) to posttest (end of course, 14 weeks later).

The current article reports a replication of the well-being benefit found from taking a positive psychology course using an improved nonequivalent control design and using additional reliable and validated measures that capture the complex and multidimensional nature of happiness (i.e., pleasure, engagement, and meaning). Unlike Maybury (2012), we also included measures of stress and depression in order to determine whether benefits of taking such a course generalize to measures of mental distress. An examination of positive psychological themes and methods that might reduce mental distress is important because since 2000, there has been a 21.4% increase in number of students seeking help for major psychological problems (Gallagher, 2012). Given links between depression, stress, college maladjustment, and poorer academic performance and retention (e.g., Baker & Siryk, 1984; Gerdes & Mallinckrodt, 1994), college administrators may be interested in the possible benefits of positive psychology courses in reducing depression and stress. Because well-being and mental distress are not complete opposite ends of the same construct (see Baumgardner & Crothers, 2009), and there are no published research studies on these specific findings in the context of a positive psychology course, our research more directly addresses the impact of a positive psychology course on mental distress.
Finally, in contrast to Maybury’s positive psychology course (2012), we included altruistic PPE’s (e.g., volunteer activities) as required coursework in order to induce more powerful effects on mental health (Otake, Shimai, Tanaka-Matsumi, Otsui, & Fredrickson, 2006).

**Method**

**Participants**

Participants included 38 undergraduates (18–22 years of age) enrolled in one of two spring semester courses (a positive psychology, n = 18, or a social psychology course, n = 20) at a small liberal arts college located in the subtropic region of the Southeastern United States.

**Equivalences in Sample, Course, Instructor, and Baseline Measures**

The sample, course, and instructor equivalencies are shown in Table 1, and the baseline assessment equivalences are shown in Table 2. We chose a social psychology course to serve as the control course in order to establish as many baseline equivalencies as possible. These equivalencies include the fact that in addition to a shared prohumanistic orientation, both courses were popular, required courses (for psychology majors), with similar course loads and levels of difficulty (including mandatory final exams). Furthermore, the courses were taught on the same days and times by professors with similar teaching styles.

On the end of course evaluations, students rated the two courses high overall and reported very similar course loads and preparation/study times (see Table 1).

In addition to the aforementioned equivalencies, both samples were very similar demographically in terms of year in school, gender frequencies, average age, grade frequency distribution, and end of term grade point average (GPA; see Table 1). One hundred percent of students in both samples listed a major or minor requirement as the primary reason for taking the course and less than 5% in each indicated an elective or specific interest as another reason for taking the course (social: 3.36%, positive: 4.76%). The samples were equivalent on all baseline assessments of well-being, stress, and depression (see Table 2).

Both instructors were Caucasian females in their mid-30s with similar extroverted, agreeable, and conscientious personalities. Course evaluations revealed similar “positive climates” for students rated both professors high in terms of interactive and engaging teaching styles, effective communication, knowledge, preparedness, timely feedback, availability, respect, and encouragement (social: M = 6.97, SD = .03; positive: M = 6.71, SD = .10).¹

**Procedure**

Six beginning (precourse) and end of the semester (postcourse, 16 weeks later) measures of well-being, depression, and stress were collected from students enrolled in one of two courses: positive psychology or social psychology (control). All students volunteered to complete the surveys, and they completed all assessments during the same days and times.

**Measures**

**Overall happiness.** The Authentic Happiness Inventory (AHI; Seligman et al., 2005) assesses agreement on three aspects of overall happiness: pleasure, engagement, and meaning. Participants chose one of the five statements that best describes the way they have been feeling for the past week (e.g., “I feel like a failure”). This 24-item questionnaire utilizes a 5-point scale: 1

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¹Note. GPA = grade point average.

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**Table 1. Comparison of Demographics, Grade Distribution, Course Load/Prep Time, and Course Evaluation Between the Positive Psychology and Social Psychology Course (Control).**

<table>
<thead>
<tr>
<th>Course</th>
<th>Social</th>
<th>Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upperclassmen</td>
<td>100%</td>
<td>95%</td>
</tr>
<tr>
<td>Females</td>
<td>95%</td>
<td>92%</td>
</tr>
<tr>
<td>Mean age</td>
<td>19.25</td>
<td>19.67</td>
</tr>
<tr>
<td>Grade distribution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>65%</td>
<td>64%</td>
</tr>
<tr>
<td>B</td>
<td>30%</td>
<td>36%</td>
</tr>
<tr>
<td>C</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>Mean GPA, end of term</td>
<td>3.40</td>
<td>3.41</td>
</tr>
<tr>
<td>Course load and prep time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–3 Hr a week</td>
<td>66%</td>
<td>59%</td>
</tr>
<tr>
<td>3–5 Hr a week</td>
<td>33%</td>
<td>36%</td>
</tr>
<tr>
<td>Overall course evaluation on a 7-point scale</td>
<td>6.97</td>
<td>6.71</td>
</tr>
<tr>
<td>(M (SD))</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. GPA = grade point average.

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**Table 2. Comparison of Baseline Assessments of Well-Being and Mental Distress Between Students Enrolled in a Positive Psychology Course or a Social Psychology Course (Control).**

<table>
<thead>
<tr>
<th>Baseline Assessment</th>
<th>Positive</th>
<th>Social</th>
<th>t(36)</th>
<th>p</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHS</td>
<td>3.20 (0.48)</td>
<td>3.20 (0.43)</td>
<td>0.05</td>
<td>.961</td>
<td>.02</td>
</tr>
<tr>
<td>GHQ</td>
<td>4.94 (1.05)</td>
<td>4.76 (1.02)</td>
<td>0.54</td>
<td>.594</td>
<td>.17</td>
</tr>
<tr>
<td>SLS</td>
<td>25.06 (5.57)</td>
<td>25.95 (5.86)</td>
<td>-0.48</td>
<td>.634</td>
<td>-.16</td>
</tr>
<tr>
<td>AHQ-PL</td>
<td>3.06 (0.77)</td>
<td>3.41 (0.75)</td>
<td>-1.42</td>
<td>.163</td>
<td>-.46</td>
</tr>
<tr>
<td>AHQ-G/EL</td>
<td>2.71 (0.73)</td>
<td>2.98 (0.53)</td>
<td>-1.32</td>
<td>.195</td>
<td>-.43</td>
</tr>
<tr>
<td>AHQ-ML</td>
<td>3.71 (0.91)</td>
<td>3.57 (0.88)</td>
<td>0.50</td>
<td>.623</td>
<td>.16</td>
</tr>
<tr>
<td>CES-D</td>
<td>11.72 (10.40)</td>
<td>13.35 (9.07)</td>
<td>-0.52</td>
<td>.609</td>
<td>-.17</td>
</tr>
<tr>
<td>PSS-10</td>
<td>13.47 (7.10)</td>
<td>15.80 (5.40)</td>
<td>-1.14</td>
<td>.259</td>
<td>.37</td>
</tr>
</tbody>
</table>

Note. AHS = Authentic Happiness Scale; GHQ = General Happiness Questionnaire (also known as the Subjective Happiness Scale); SLS = Satisfaction with Life Scale; AHQ-PL = Pleasant Approach to Life Subscale of the Approaches to Life Questionnaire; AHQ-G/EL = Good/Engaged Approach to Life Subscale of the Approaches to Life Questionnaire; AHQ-ML = Meaningful Approach to Life Subscale of the Approaches to Life Questionnaire; CES-D = Center for Epidemiologic Studies–Depression; PSS-10 = Perceived Stress Scale.
(negative) to 5 (extremely positive); \(\alpha = .92\) (Schiffrin & Nelson, 2010).

**Enduring happiness.** The *General Happiness Questionnaire* (Lyubomirsky & Lepper, 1999) assesses global, enduring happiness. This 4-item questionnaire utilizes a 7-point response range (e.g., “In general, I consider myself: 1 (not a very happy person) to 7 (a very happy person); \(\alpha = .86\).

**Life satisfaction.** The *Satisfaction with Life Scale* (Diener, Emmons, Larsen, & Griffin, 1985) assesses global life satisfaction. Participants chose to what extent they agree with each statement (e.g., “In most ways, my life is close to my ideal”). This 5-item questionnaire utilizes a 7-point response range: 1 (strongly disagree) to 7 (strongly agree); \(\alpha = .87\).

**Routes to happiness.** The *Approaches to Happiness Questionnaire* (AHQ; i.e., *Orientation to Happiness Measure*; Peterson, Park, & Seligman, 2005) assesses three routes to happiness: pleasant, good/engaging, and the meaningful life. Participants chose to what extent each statement describes how they live their life (e.g., “Regardless of what I am doing, time passes very quickly”). This 18-item questionnaire utilizes a 5-point response range: 1 (not like me at all) to 5 (very much like me); Cronbach’s \(\alpha\) for the three subscales = .82 (pleasant life), .72 (good/engaged life), and .82 (meaningful life).

**Depression.** The *Center for Epidemiologic Studies–Depression (CES-D) Questionnaire* (Radloff, 1977) assesses symptoms of depression. Participants chose how often they have felt a particular way in the past week (e.g., “I was bothered by things that usually don’t bother me”). This 20-item questionnaire utilizes a 4-point response range: 0 (rarely or none of the time) to 3 (most or all of the time); \(\alpha = .90\).

**Stress.** The *Perceived Stress Scale* (Wang, Chen, Boyd, Zhang, Jia, Qi, & Xiao, 2011) assesses the degree to which participants view their life as uncontrollable, unpredictable, and overloading. Participants chose how often they have felt a particular way in the past month (e.g., “In the last month, how often have you been upset because of something that happened unexpectedly”). This 10-item questionnaire utilizes a 5-point response range: 0 (never) to 4 (very often); \(\alpha = .86\).

**Positive psychology course content and engaged learning activities.** The positive psychology students completed multiple, required readings, writing assignments, and PPEs (as engaged learning activities) throughout the semester, including:

- **Kindness, altruism, and gratitude journal.** Students provided written reflection of the following: (1) planned act of kindness, (2) random (spontaneous) act of kindness, (3) volunteer to make a child smile (delivered candy to sick children), (4) letter of gratitude (wrote letter to someone never previously thanked), and (5) three good things (recorded three things that brought joy, pleasure, gratitude, or meaning in their life everyday for the entire semester; Seligman et al., 2005).

**Using signature strengths in a new way** (Seligman et al., 2005). Students identified their five top (signature) strengths (*Values in Action–Strengths Inventory* by Park, Peterson, & Seligman, 2004) and then used one strength in a novel way each day for 1 week.

**Letter of forgiveness** (Seligman, 2002). Students wrote a forgiveness letter to a previous transgressor.

**Savoring exercise** (Seligman, 2002). Students engrossed themselves in a pleasurable activity.

**Mindfulness and savoring exercise: Have a beautiful day** (Seligman, 2002). Students were “given permission” to sit outside and enjoy their surroundings without worry by clearing their mind and focusing on joyful or aesthetically pleasing surroundings.

**Films.** Students watched *Up* (Lasseter et al., 2009), an animated motion picture portraying resilience, perseverance, and optimism (common positive psychology themes).

**Readings.** Students were required to read Baumgardner and Crothers’s (2009) *Positive Psychology* textbook and Seligman’s (2002) *Authentic Happiness*.

**Results**

The baseline descriptive and inferential statistics are shown in Table 2, and comparisons between baseline and posttest scores are shown in Table 3. A series of analyses of variance with psychology class (positive, social) as the between subjects factor and pre- and postcourse measures of well-being, stress, and depression as the repeated measures revealed significant interactions between class and the baseline and postcourse assessment on five of the six measures; overall happiness (AHQ), \(F(1, 36) = 8.94, p = .005\), partial \(\eta^2 = .20\); Satisfaction with Life Scale, \(F(1, 36) = 8.76, p = .005\), partial \(\eta^2 = .20\); pleasant approaches to life (AHQ–Pleasant Life), \(F(1, 36) = 5.84, p = .021\), partial \(\eta^2 = .14\); good/engaged approaches to life (AHQ–Good Engaged Life), \(F(1, 36) = 9.39, p = .004\), partial \(\eta^2 = .21\); meaningful approaches to life (AHQ–Meaningful Life), \(F(1, 36) = 5.39, p = .026\), partial \(\eta^2 = .13\); depressive symptoms (CES-D), \(F(1, 36) = 6.31, p = .017\), partial \(\eta^2 = .15\); and perceived stress (PSS-10), \(F(1, 36) = 10.92, p = .002\), partial \(\eta^2 = .23\). There were no differences in baseline measures between the two classes (see Table 2), but there were significant differences on the posttests (see Table 3): The positive psychology class reported significantly greater levels of overall happiness, life satisfaction, approaches to happiness, and lower levels of depression and stress on the posttest compared to baseline (ps < .05), while the control exhibited no differences between baseline and posttests, ps > .25 (with the exception of a significant increase in stress, \(p = .026\)).
Table 3. Pre- and Post-course Assessments of Well-Being and Mental Distress Among Students Enrolled in a Positive Psychology Course or a Social Psychology Course (Control).

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Positive Psychology Course</th>
<th>Social Psychology Course (Control Condition)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-course, M (SD)</td>
<td>Postcourse, M (SD)</td>
</tr>
<tr>
<td>AHS</td>
<td>3.20 (0.48)</td>
<td>3.54 (0.52)</td>
</tr>
<tr>
<td>GHQ</td>
<td>4.94 (1.05)</td>
<td>5.33 (1.00)</td>
</tr>
<tr>
<td>SLS</td>
<td>25.06 (5.57)</td>
<td>28.89 (5.79)</td>
</tr>
<tr>
<td>AHQ-PL</td>
<td>3.06 (0.77)</td>
<td>3.63 (0.87)</td>
</tr>
<tr>
<td>AHQ-G/EL</td>
<td>2.71 (0.73)</td>
<td>3.47 (0.81)</td>
</tr>
<tr>
<td>AHQ-ML</td>
<td>3.71 (0.91)</td>
<td>4.07 (0.85)</td>
</tr>
<tr>
<td>CES-D</td>
<td>11.72 (10.40)</td>
<td>8.61 (9.39)</td>
</tr>
<tr>
<td>PSS-10</td>
<td>13.47 (7.10)</td>
<td>10.06 (4.45)</td>
</tr>
</tbody>
</table>

Note. AHS = Authentic Happiness Scale; GHQ = General Happiness Questionnaire (also known as the Subjective Happiness Scale); SLS = Satisfaction with Life Scale; AHQ-PL = Pleasant Approach to Life Subscale of the Approaches to Life Questionnaire; AHQ-G/EL = Good/Engaged Approach to Life Subscale of the Approaches to Life Questionnaire; AHQ-ML = Meaningful Approach to Life Subscale of the Approaches to Life Questionnaire; CES-D = Center for Epidemiologic Studies–Depression; PSS-10 = Perceived Stress Scale.

*p < .05. **p < .01.

Discussion

The purpose of this study was to determine whether the well-being benefit of a positive psychology course found previously (Maybury, 2012) generalized to other multidimensional measures of happiness and extends to measures of stress and depression, using a nonequivalent control experimental design. We also included more altruistic activities in the course in order to induce more powerful effects on well-being (e.g., Otake et al., 2006). It is important to note that we established many equivalencies between the experimental and control course (e.g., high degree of similarity between instructors, sample demographics, expectancies, and course performances), and there were no differences between the courses at baseline on any of the assessments.

Consistent with the hypothesis, unlike the control, the positive psychology class exhibited higher levels of overall happiness, life satisfaction, and positive approaches to life and lower levels of depression and stress postcourse. These results are noteworthy in that even with a small sample size, we detected statistically significant differences and our effect sizes were moderate to strong (many Cohen d’s were close to or exceeded .70). Importantly, the mental health benefit generalized to a multidimensional measures of overall happiness (Authentic Happiness Questionnaire) and routes to happiness (AHQ), involving pleasure, engagement, and meaning. Thus, the positive psychology students reported greater levels of positive emotions, euphoric experiences, losing themselves in activities that involve their character strengths and serving in something larger than themselves. These findings are unique because to date, no one has explored the impact of a positive psychology course on multidimensional measures of happiness.

Our findings are also unique in that we found that the benefits of the course generalized to measures of depression and stress. These results are particularly compelling, given the fact that the postcourse assessments were completed during one of the most stressful times of the semester (i.e., before final exams in each course). Mental distress is a problem for college students because according to the National College Health Assessment (American College Health Association, 2011), many students expressed functioning difficulty because of depression (15.7%) or stress (42.8%). Furthermore, some of them felt that depression (5.7%) and stress (18.5%) contributed to lower exam grades. Because both courses reported similar GPAs at the end of the term, there appears to have been no relationship between course and academic performance in the short term. However, we did not examine the direct relationship between the assessment outcomes and academic performance within each student. Although we did not directly measure the short- and long-term impact of these well-being improvements on retention and academic performance, others such as Fredrickson (2001) propose that positive emotions broaden thinking and attention and help to build long-lasting emotional, social, and intellectual skills. Our results suggest that completing a positive psychology course may be one way to alleviate or prevent depressive symptoms and stress, but more research is...
needed in order to directly explore the role that a positive psychology course might play in improving academic performance and reducing college maladjustment.

Some shortcomings in the current study warrant discussion. First, we cannot rule out expectancy effects because only those in the positive psychology course were told that the course might improve their well-being. Second, students may have benefited from the course because they were highly motivated and interested as a result of self-selection. However, many students did not self-select into their desired course but rather had chosen a specific course (social or positive) in order to complete major/minor requirements: 100% listed a major or minor requirement as a primary reason for taking the course and less than 5% in each listed an elective or specific interest as a secondary reason for taking the course. Some students may have self-selected into the course, however Seligman argued that these interventions should be targeted to those people who want to become happier and so the “sample is biased but in a relevant direction” (Seligman et al., 2005, p. 415). One final shortcoming of our study is that we cannot pinpoint what specific course components (e.g., the topic of course, the course readings, the PPE’s, or a combination of factors) were responsible for the benefits. Although Seligman acknowledges that just reading about positive psychology makes people happier, many others demonstrated the benefits of PPE’s using true experimental designs (Emmons & McCullough, 2003; Fordyce, 1977; Mongrain & Anselmo-Matthews, 2012; Otake et al., 2006; Seligman et al., 2005; Sin & Lyubomirsky, 2009). Future researchers might implement a more informative design to assess the role of the PPE’s with the context of a positive psychology course by including control positive psychology course that does not implement the exercises.

American Psychological Association Guidelines for the Undergraduate Psychology Major list one of the major’s goals and learning outcomes should be for students to “develop insight into their own and others’ behavior and mental processes and apply effective strategies for management and self-improvement” (2007, p. 10). The present results suggest that a positive psychology course may be one way to fulfill this personal development goal by promoting subjective well-being and reducing depression and stress.

Acknowledgment
The authors thank Dr. Marcie Pospichal, associate vice president for student support at Florida Southern College, Dr. Deah Quinlinian, assistant professor of psychology at Florida Southern College, and Dr. Kevin Kieffer, professor of psychology at Saint Leo University.

Declaration of Conflicting Interests
The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding
The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The Office of the Provost at Florida Southern College provided partial funding for this research.

Notes
1. Average course evaluations across 15 different evaluation dimensions for the social psychology course were statistically greater than for the positive psychology course, \( t(28) = 10.07, p = .0001 \).
2. The positive psychology course syllabus and other course material can be obtained from the first author.

References


