GAINING A POSITIVE SENSE OF CONTROL:
TEACHING THE PRINCIPLES AND PRACTICE OF
CONTROL THERAPY IN AN EDUCATIONAL SETTING

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Over the past several decades, there has been an exponential growth in psychological theory and research to develop techniques by which individuals can gain a positive sense of control in their lives. One such model is Control Therapy (Shapiro & Astin, 1998; Shapiro, Astin, Shapiro, Soucar, & Santerre, 2010; D. H. Shapiro, Soucar, S. L. Shapiro, & Astin, 2010) which has been studied with diverse clinical populations. This study is a preliminary investigation exploring the application of Control Therapy to an educational setting, through a ten-week course, in which 13 undergraduate students in the United States studied control theory and research, learned about their own “control profile”, and completed an N = 1 self as subject, control-related research project. Scores on the Shapiro Control Inventory (SCI) pre to post all showed movement in the “healthy” sense-of-control direction. N = 1 data showed students were able to effectively match their control profile, self-observation data, and goals to appropriate techniques. Qualitative data showed positive changes on sense of control for 12 out of 13 participants, some quite profound (e.g., “invaluable life lessons and skills” “empowering”). An adverse result was reported by a single student. The paper concludes with limitations of this study and directions for future research.

Key words: Control Therapy, sense of control, control profile, educational setting

INTRODUCTION

Over the past several decades, there have been efforts to develop, explore, and refine non-pharmacological self-control strategies—both from Western psychology (cf. Thoresen & Mahoney, 1974; D. H. Shapiro, S. L. Shapiro, Astin, & J. F. Shapiro, 2010); and meditative traditions (Akishige, 1970; Shapiro, 1980; Shapiro & Walsh, 1984; Weidong, Sasaki, & Haruki, 2000; S. L. Shapiro & Carlson, 2017; Farias, Brazier, & Lalljee, in press)—to provide individuals increased control over their affect, behavior, and cognitions, and to find ways to help individuals gain and maintain a positive sense of control in their lives. Several control related constructs have been identified, including learned helplessness and optimism (Seligman, 2006), self-efficacy (Bandura, 1977); delay of gratification (Mischel, 1974); internal and external locus of control (Reich & Infurna, 2016); and desire for control (Burger & Cooper, 1979), and there has been attention paid to the different meanings and understanding of control in cross-cultural context (e.g., Weisz, Rothbaum, & Blackburn, 1984).
Finally, there have been efforts to develop ways to measure and assess control. A first generation forced choice test measuring internal and external locus of control was developed by Rotter (1966). A second generation test showing that internal and external locus of control was not either/or, and looking specifically at the dimension of health was developed by the Wallston, Wallston, and DeVellis (1978). A third generation multi-dimensional Control Profile test was developed to measure 1) sense of control (general and specific domain mind, body, relationships, work, self). 2) modes of control- four scales that reflect cognitive and/or behavioral styles of responding to control-related issues: positive assertive/change mode of control; positive yielding/acceptance mode of control; negative assertive; and negative yielding. 3) Motivation for control (desire for control: a motivational vector) shows how the student wishes to deal with areas they are not in control of and their level of motivation for addressing areas of concern. 4) Agency of control—where a person’s sense of control comes from (self, other, Other).

The SCI is a theoretically derived, empirically validated instrument and has undergone extensive reliability and validity testing (Shapiro, 1994). For example, the SCI provided incremental validity over Rotter’s (1966) internal-external locus of control scale and Wallston et al. (1978) health locus of control scales both for sensitivity (clinical versus normal) and specificity (between clinical groups of depression, generalized anxiety, panic attach, and borderline personality (Shapiro et al., 1993). There was also a correlation of cerebral glucose metabolic rates with sense and modes of control using Positron Emission Tomography (Shapiro et al.,1995). The SCI has also been used in a twenty year follow up study of morbidity and mortality of women with breast cancer (Astin, J. Shapiro, & D. Shapiro, 2013), and a two year study of men at cardiovascular risk involved in a cognitive/behavioral intervention (Shapiro, Friedman, & Piaget, 1991).

The first time a comparison and contrast of meditation and behavioral self-control

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<th>Table 1. Modes of control</th>
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<tr>
<td><strong>POSITIVE ASSERTIVE</strong></td>
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<td>Assertive, Change Mode of control (Quadrant 1)</td>
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<td><strong>NEGATIVE ASSERTIVE</strong></td>
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<td>Over control (Quadrant 3)</td>
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1 A reviewer requested further clarity about the use of the terms yielding, acceptance, and mindfulness. We appreciate the chance to provide further clarity, as often the term mindfulness is used in many different ways. When we use the term mindfulness, we are referring specifically to a meditation technique (from the Vipassana tradition) involving “just noticing” without judgment all that is occurring (cf. S. L. Shapiro & Carlson, 2017). Thus, in Control Therapy, mindfulness is viewed as a self-regulation technique. The yielding accepting mode of control is a construct in the control inventory. Several studies have shown that mindfulness meditation (the technique) can facilitate an increase in quadrant two, positive acceptance construct on the SCI (cf. Astin, 1997; D. H. Shapiro, 1992). A more detailed summary of the control profiles of beginning, intermediate, long term and very long term meditators (20 years), can be found in the SCI Manual (Shapiro, 1994) for each scale, including meditators compared with other clinical and normative populations.
strategies was articulated in the literature was (Shapiro & Zifferblatt, 1976; cf. also, Shapiro, 1978) including the assertive/change mode of control and the yielding/accepting mode of control. This work led to the building of efforts toward a unifying theory of control noted above; as well as the matching of a person’s control profile, goal, and control enhancing strategies in Control Therapy (Shapiro & Astin, 1998). Since those initial efforts, other approaches have also sought to combine/integrate meditation and behavioral self control: e.g., Dialectical Behavior Therapy Linehan et al. (2006); Acceptance/Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 2016); mindfulness based cognitive therapy (Segal, Williams, & Teasdale, 2002).

There are several clinical areas where an impairment of control has been suggested as one of the central features, and hundreds of research studies have shown that individuals have a desire to have a positive sense of control in their lives and feel happier and healthier when they do (see the over 1000 references in Shapiro & Astin, 1998; also Shapiro, Soucar, Shapiro, & Astin, 2010). The principles and practice of Control Therapy has sought to 1) integrate these different constructs at a theoretical level. For a table comparing different constructs of personal control (will, self-control) historically, from the Greek tradition and Thomas Aquinas to William James, see Table 1.1; and for an overview of contemporary control related constructs see Table 1.4 in Shapiro and Astin (1998), Chapter 1); 2) create a means of assessing a person’s “Control Profile” so that self-regulation strategies can be matched to a person’s control profile and clinical concern to help individuals gain (or regain) a more positive sense of control in their life.

Although research on the efficacy of the principles and practice of Control Therapy has been undertaken with patients having diverse clinical and health care concerns, the model is an educational one. Therefore, this study was a preliminary investigation to explore the promise of this knowledge applied to an educational setting. The class was taught at a public university in the United States to 13 incoming college transfer (third year) students on a first come, first serve basis. Transfer students were selected because this institution has articulated that there are certain especially challenging college “transitions” (e.g., incoming freshmen, transfer students, older returning adults) where individuals may be at increased psychological risk. Teaching a class “Gaining a Positive Sense of Control in your life” to a group of transfer students of diverse ethnic and cultural backgrounds seemed a promising opportunity to explore the potential effects of control theory and practice on students at a potentially stressful transition point in their education.

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2 For a discussion of all the reliability and validity studies of the SCI, see Shapiro (1994); The 187-item standardized online test can be found at (www.controlresearch.net) and may be utilized at no charge by educators, researchers, clinicians. The test is in English (and Chinese) on the site, and has been translated into Korean, Hebrew. and Spanish. Further, the SCI manual (over 200 pages) summarizes information of the test’s initial construction, factor analytic studies with hundreds of subjects, test retest reliability data, alpha reliability and internal consistency of each scale, and over a dozen published validity studies. Likert scoring of each scale (e.g., sense of control and desire for control are six point scales; modes of control are four point scales) is provided, as well as comparisons of different clinical and “normal” groups and how each was assessed.
Method

Participants and Setting

This study evaluated the effectiveness of an undergraduate seminar “Exploring how you gain a sense of control in your life”. The class was taught by the first author, a faculty member at this public university, and a Diplomate, American Board of Professional Psychology, Clinical Specialty.

Ten of these students were female and the remaining 3 were male; five were psychology majors, the other majors included engineering, pharmacy, biological sciences, and chemistry. The class was culturally/ethnically diverse, with four students self-identified as Latino/Latina, and four as Asian Americans (Thai, Philippine, Chinese). The other students were Caucasian. Nearly all students were between the ages of 20–22, with one being 27 years old. Their reasons for taking the class ranged from “interested in topic;” “I wanted to be in a small class to get to know people easily;” “I need to work on some personal issues of control” to “good time slot”.

Procedure

Class Content, Confidentiality, Informed Consent. This class was directed toward undergraduates who may or may not be psychology majors. Therefore, the graduate template of a Control Therapy class (Shapiro, 2014) was adapted to an undergraduate level. The classroom reading consisted of the first three modules of the Control Therapy Training Manual (Shapiro, Soucar, et al., 2010) which provides a self-directed guide for individuals to learn about Control Therapy by actually engaging in a self-directed project (self as therapist, self as client). The intention was that the “academics” of the course—e.g., the role of control in different personality theories and psychological constructs; the goal of psychological health in terms of suboptimal, “normal” and optimal control; and different self-regulation modalities—would be grounded in personal experience—a psychology from the inside out.

Self-disclosure and sharing were discussed regarding both in-class discussion and materials prepared for the instructor, including taking responsibility for not sharing more than was comfortable, as well as honoring the confidentiality of what was shared in class. As one reviewer noted, this issue of confidentiality is a critically important point in utilizing the principles and practice of Control Therapy in an educational setting, and the issue of sensitivity to honoring each other’s communications in class was strongly emphasized. In addition, The Institutional Review Board (IRB) at the University reviewed and approved this study as exempt research (HS#: 2012-9246), students were assured of anonymity of results, and all students gave informed consent.

Attendance: “Adherence and Compliance.” Attendance was required, and if students could not attend a given session, they were asked to contact the instructor. For the ten week class (and 13 participants), there were 130 “class contact times.” Students combined missed 9 times for a 93% attendance (and for the nine missed classes, summary notes of the class discussion were provided the student). The standard in this institution is 2 hours of homework minimum for each hour of class. All students reported spending at least two hours outside of class, the majority spent at least four, and two spent ten hours.

Grading. At the end of the term, each student turned in a final paper. Objective criteria for grading was based on how well the student showed proficiency and understanding in the following areas of their final paper:

- understanding of the different theories of personality, schools of psychotherapy, and how each related to control;
- an exploration of the role of self-control, self-regulation, self-management, in mental well-being and physical health (wellness/self-care);
- views of psychological health and its relationship to the construct of control in different personality theories and systems of psychotherapy.

3 A complete outline and template for a Control Therapy Seminar can be found at http://controlresearch.net/control-therapy-seminar-template.html; the manual at http://controlresearch.net/control-therapy-manual.html
The grade also reflected the student’s classroom participation, attendance, and the quality of their wrestling and reflection on their N = 1 papers. This paper included the student’s self-evaluation.

Learning about their “control profile.” The SCI was used to measure each student’s “control profile” at the beginning of class (as a basis for their N = 1 project) and at the eighth week of class to assess changes. Scores are calculated on a standardized scale from 0–100, with a mean of 50. All scores are compared to a “healthy normal” sample (yellow shaded area in Fig. 1) below so the test taker can easily see where their scores fell (the dark blue shaded lines). An example of an SCI profile from a student is illustrated below (Fig. 1). You can see in this profile that the General Domain Sense of Control scores are low; the positive yielding mode (scale 6) is in the positive direction, and negative yielding (Scale 8) is high. Self as source of sense of control (item 13) and other as source of sense of control (item 14) are within the “normal range.”

Quantitative Group Results. The program IBM SPSS version 20.0 software was used to conduct statistical analyses (Feeney & Kirkpatrick, 2012). A paired samples t-test was used to compare pre and post-test scores, allowing us to reject the null hypothesis at the 0.05 significance level for certain pairs. Participants were tested on the same dependent variable, pre and post: e.g., their overall sense of control. Effect size was also obtained on each variable, and following Cohen (1988), 0.2 was considered a ‘small’ effect size, 0.5 represents a ‘medium’ effect size and 0.8 a ‘large’ effect size.

Qualitative data. Students turned in a final paper, in which they addressed the issues noted above, as well as their own reactions to and exploration of their control profiles on the four topics measured by the SCI: sense of control; modes of control; desire for control, and agency of control. These papers became the basis for the qualitative data. The criteria used to analyze the qualitative data derived from grounded theory (Corbin & Strauss, 1990) and consisted of a) coding and categorizing patterns and themes related to students’ control profiles in these four areas; and b) noting support, elaboration, and more in-depth exploration of the quantitative findings.

The narrative data was categorized and coded by the first author into the four groupings noted above, whose reliability and validity have been shown in a dozen previous studies (summarized in Shapiro, 1994, pp. 30–55). Specifically, previous work developed a control content analysis scale to linguistically code terms of importance in Control Therapy and measured by the SCI for these four groupings (Shapiro & Bates, 1990). Work was then published showing how the linguistic coding of these terms in a content analysis sample, using rater reliability, was utilized with outpatient verbal samples (Shapiro, Bates, Greenzang, & Carrere, 1991). In the current study, which was preliminary and heuristic, excerpts from participants’ journals were read and grouped by the first author based on the above categories as a way to provide illustrative, descriptive examples of each of the core themes. In so doing, based on face validity, the first author simply grouped student journal comments into categories that were validated in multiple previous studies. There was also triangulation of the data in that the qualitative data elaborated on and provided more detail of the quantitative results.

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4 Although, students were asked to keep a journal of what they “learned” during the class—and were told that they should be completely honest in the journal, but that they only had to turn in those sections they were comfortable having the instructor read.

5 Each student completed a self-evaluation on what grade they believed they deserved in this class and why. Instructions to students for this self-evaluation were as follows: “With mindfulness and compassion, as well as clarity of strengths and constructive evaluation, please share your criteria based on what was/is in your control, ability, and skill in terms of the class: e.g., arriving on time; attendance record (and if you missed a class due to forces outside your control: e.g., illness, how you made up for what was missed); listening carefully in class; your classroom participation; careful reading of all modules; conscientious effort in doing all homework in modules; your overall effort, learning, engagement, “wrestling” with the material; amount of hours put in for the class (outside of class—please state how many). Finally, how effectively did you put all this work together in your final paper (which is really for you)! Thank you.” There were a couple of complaints that the class involved too much homework for a one unit class. The instructor apologized, noting that hopefully since the material involved learning about the “student’s” own life, the rewards would one day be commensurate with the effort!

6 The psychological/psychiatric instrument used to screen the “healthy normal” sample can be found at controlresearch.net under “Foundational Studies and Control Profiles” go to http://controlresearch.net/support-files/SCI_normal_subjects_screening.pdf
Results

Quantitative Results: Group Pre-Post Tests and Effect Size

SCI pre-test and post test scores were collected to determine if the educational course improved students’ overall sense of control and analyzed as noted above paired samples test, and calculation of effect size (ES). As can be seen from Table 2, there was a shift in the expected, positive direction on all the variables: overall sense of control increased (ES .55), positive sense of control increased (ES .62; \( p < .10 \)), negative sense of control decreased (ES .53), positive assertive increased, positive yielding/acceptance increased. Negative assertive (ES .83) and negative yielding (ES .55) both decreased (\( p < .10 \)). Desire for control significantly decreased (ES .72; \( p < .05 \)). Self as source of control and others as source of control both increased, the latter significantly (ES .92; \( p < .05 \))^7.

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^7 In spite of repeated requests, 3 students did not turn in the post test score. Their pre-test scores did not differ from the pre-test scores of those who did turn in the post test.
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Quantitative data: N = 1, Example of “matching”

After taking the SCI test, students were given a copy of their control profile, as well as a 20 page report summarizing the results. Based on their pre-test control profile, and the area they wished to explore, a goal was set, baseline data was collected, and control enhancing techniques chosen to match their profile and goal.

Students’ self-exploration projects, initial topics:

*public speaking anxiety;
* when others say you’re acting too controlling;
*controlling emotions better;
*meeting new people;
*general control issues;
*seeking self-improvement;
*feeling out of control everywhere;
*time management;
*eating behavior;
*increasing motivation;
*learning to be less passive but stay calm (e.g., in heated arguments);
*wanting to sleep better;
*body fitness:

<table>
<thead>
<tr>
<th>CONTROL VARIABLE</th>
<th>PRE SCORE (sd)</th>
<th>POST SCORE (sd)</th>
<th>+(Movement in positive direction), %c change; Effect Size (ES); p value (p &lt; .10; p &lt; .05) p = ns</th>
</tr>
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<tbody>
<tr>
<td>OVERALL sense of control</td>
<td>5.095 (.83)</td>
<td>5.515 (.61)</td>
<td>+8% ES:55; p = ns;</td>
</tr>
<tr>
<td>Positive</td>
<td>5.309 (.77)</td>
<td>5.736 (.49)</td>
<td>+8% ES:62; p &lt; .10 (.073)</td>
</tr>
<tr>
<td>Negative</td>
<td>3.380 (1.03)</td>
<td>2.880 (.84)</td>
<td>+15% lower*; ES = .53; p = ns</td>
</tr>
<tr>
<td>Domain Specific</td>
<td>4.865 (.45)</td>
<td>4.976 (.60)</td>
<td>+2%; ES = .21;p = ns</td>
</tr>
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</table>

| MODES | | |
| 5 Positive Assert/change | 2.532 (.44) | 2.606 (.42) | +3%; ES = .24 p = ns |
| 6 Positive Yield/accept | 2.593 (.38) | 2.686 (.46) | +4% ES = .22;p = ns |
| 7 Negative assertive | 2.145 (.43) | 1.830 (.33) | +12% lower; ES = .83 p < .10 (.085) |
| 8 Negative yielding | 2.040 (.59) | 1.780 (.32) | +12% lower; ES = .55 p < .10; (.096) |
| 9 DESIRE for control | 4.927 (.60) | 4.572 (.37) | + 7% lower; ES = .72 p < .05 (.038) |
| 10 stay the same (accept) on modes | 21.100 (12.05) | 25.2 (12.06) | +19% ES = .34 p < .10 (.090) |
| 11 satisfaction level (# of domains) | 11.500 (6.2) | 10.625 (5.5) | 7% ES = .15; p = ns |
| 12 response preference if domain a concern: change | 10.9 (4.3) | 9.5 (4.9) | 13%; ES = .30; p = ns |

| AGENCY | |
| 13 Self | 5.900 (.88) | 6.100 (1.1) | +3% ES = .20;p = ns |
| 14 Other | 3.500 (.85) | 4.600 (1.43) | +31%; ES = .94; p < .05 (.017) |

*Lower movement in negative sense of control is positive (as it is with e.g., negative assertive, negative yielding).
As has been shown in previous research (e.g., Shapiro, Schwartz, & Astin, 1996), there is no one size fits all approach in Control Therapy. N = 1 case studies provide important insights because they show how different control enhancing interventions are tailored and matched to the person’s control profile and goal, information that would not necessarily be captured in the pre post group data. Below are two contrasting examples that illustrate this principle. Student 1 chose as an area of concern “eating behavior.” Student 2 chose decreasing trying to control others and increasing self-kindness.

**Student 1.** Fig. 2 shows the Control Profiles of Student 1 at Week 1, and the post-test profile of the same student at Week 8.

In the pre-test, for Student 1 the overall sense of control (scale 1) is low. Positive assertive (scale 4) is in the “lower” direction; desire for control (scale 9) is in the normal range; and self as agent/source of control (item 13) is quite low. At Week 8, the overall sense of control has shifted dramatically (scale 1), both positive assertive (scale 4) and positive yielding (scale 5) have increased substantially; and self as a source of control has shifted substantially (item 13) in the positive direction. Interventions were directed toward “binge eating” and included “positive assertive” actions such as removing food from the apartment, not buying junk food; responding to sad and stressful events by writing in a journal when “binge urges” were present; and practicing deep breathing.

**Student 2** chose the goal of trying to decrease the desire to always be in control, including trying to “control” other people; and to increase “self-kindness” and “trusting others,” wanting to develop the positive/accepting yielding mode of control. This student’s profile at Week 1 was different than Student 1 in several ways. The positive sense of control scale was quite high, with a high positive assertive (scale 5) and a high negative...
assertive (scale 7), and higher desire for control (scale 9). As part of the target intervention the student utilized affirmations “I can do this. I know it is good for me to accept this situation ... I can only control myself.” Student 2 also practiced gratitude for friends and family’s love and support and forgiveness for those who accidentally or intentionally hurt the student. At the end of the eight week period, Student 2 wrote, “I have increased acceptance and happiness.”

Comparing Control Profiles of Students 1 and 2: Matching. Both students were able use targeted control-enhancing interventions that matched their control profile and area of concern. Although their interventions were different—tailored to their concern—they both made changes in the positive direction which is reflected in their eight week control profile. Student 1 increased overall sense of control, the positive assertive mode of control, motivation (desire for control) and self as agent. Student 2 showed a substantial increase in positive yielding/ accepting mode of control, and decreased negative assertive, a desire for control and self as source of control, while increasing other as source of control.

These results reflect the importance of matching control enhancing interventions to students’ “unique” control profiles and goals.

Qualitative data: Learning Control Therapy—Principles and Practices

As noted, the students’ journals as well as their self-exploration projects comprised the study’s qualitative data. The criteria used to analyze the qualitative data derived from grounded theory (Corbin & Strauss, 1990) and consisted of a) coding and categorizing patterns and themes related to students’ control profiles; b) noting support, elaboration, and more in-depth exploration of the quantitative findings. All students were able to understand and apply the principles and practices of Control Therapy to their lives. All found the “control profile” understandable, and were able to “self-observe” an area, set goals, and
match appropriate control enhancing techniques to their goals. The main themes reported in this qualitative section are:

- The value of student self-reflection about their control profile and process.
- What students learned about the four modes of control; and self and other agency.
- The above themes are supported by specific examples from their N = 1 projects of what they learned, including positive changes in eating behavior; increasing motivation and study behavior; decreasing negative assertiveness, (over control), staying calm while expressing a point of view; decreasing stress: self-compassion and forgiveness.
- Finally, three examples of students journal covers are shared, as well as the anonymous student feedback of the class at the end of the quarter.

The value of self-reflection about my control profile and process

Twelve of the 13 students found the self-reflection about the control profile and process to be quite helpful. One student did not. These comments are reported below.

— The most precious thing I learned from this class is to think kindly but critically about myself, be honest to myself, develop my own theory of personality, means and supports to take control of my life, make quality decision to make myself a better person living a happier life.

— This class taught me to be self-reflective in a more organized way. This class has taught me so many invaluable life lessons and skills ... I felt like I was on a journey of self-discovery ... how I make sense of the world around me through personality and control, psychological health and control, my views of the nature of the universe and control.

At the start of the class, several students commented that they were not very self-reflective in general, and about “control processes” in particular. For example, a student said “I took this class to satisfy my unit requirement ... but learned how to stay calm (diaphragmatic breathing) when everything else is falling apart. The self-observation was also really helpful: I never paid attention to what triggers my stress, how I get stressed, when I get stressed.” Another student noted that reflection was helpful both in learning about obstacles and how to overcome the, but also in developing gratefulness or the positives in one’s life. “After taking this class I feel motivated to do well in school and other aspects of my life without being overwhelmed by obstacles. Learning to make time to reflect is something valuable that I learned in class. Reflecting has helped me become more grateful about what I have.”

Some suggested that even thought it was “right before their eyes”, the concept of control was a new concept. For example, one student noted “I was shocked when I realized the main goal of the class was to learn about myself, first because I never had a class like this before but mostly because this class has made me realize how much I did not know about myself. I learned to take make some time for myself and practice reflection. It is because of this reflection, that I learned to be more aware of my feelings and recognize how
they affect me and what triggers my emotions, particularly stress. Taking the SCI profile and reviewing the summary of my sense of control was the first step in this learning experience.”

This comment was similar to others who noted how the class helped them learn to turn inward, and the importance of that in multiple domains of their life. As one student noted: “This class made me more interested in reflecting inwards. I love this aspect of self-control and I wish all classes would go this deep and be as reflective as this class. I would like to integrate what I learned into the rest of my life, how I will proceed with my career, how I handle my career, and how I interact with my career, with others, and my overall approach to life.”

Again, the above comments were indicative of the view of several other students:

— This class taught me techniques to help achieve my personal goals and learn how to gain a sense of control in my life and is something that I can take with me. I feel so happy to have taken this class at this point in my life, and learn about something that will be so useful for the rest of my life.

— I wish this class could continue for another semester that keeps building off this semester’s material! I will always remember this class ... the energy I got from taking this class, I will carry this out into my life as best as possible. A great experience,

— After weeks of self-assessment, self-exploration and self-evaluation, I feel like I have given myself a valuable opportunity to learn about my weaknesses and myself in a more spiritual way. This project has given me a sense of excitement and adventure because I know that eventually this will guide me in gaining a more positive sense of control in my life under any circumstances. These successes are the ones that I intend to keep with me throughout my life. It is empowering to realize that there is a way to have control of our body and mind.

One negative evaluation, adverse result. One student reported a negative experience (adverse effect) of the class (“boring, irrelevant, not helpful”). As s/he wrote “I felt overwhelmingly stressed with school, and aggrieved that I had to further spend time micro psycho-analyzing ridiculous components of my life to assess whether or not I was ‘in control.” Based on this student’s feedback, it is important to acknowledge that self-reflection, for all its benefits, can be a challenging process, and it is important to remain sensitive to possible “adverse effects” that may be occurring, a point we elaborate on in the discussion section.

Learning about the four modes and self/other agency

Four mode of control. Students expressed that two of the most helpful concepts to them were the ideas of the four modes of control (assertive/change and yielding/acceptance) learning how to balance them as well as the “wisdom” to know when each was valuable

8 It should be noted that this student did complete an N = 1 project, Increasing motivation and study behavior,” and improved from two hours of study per week to 9 hours a week (see below under “Learning from the N = 1 project), which s/he called an “improvement.”
and helpful in different situations. As one student said “The most important thing that I learned in this class were the four different modes of control, because I realized I tend to be more negative yielding, and I needed to adjust this because it was affecting how I feel, thus affecting the energy I’d been giving off to others, and ultimately how they react towards me ... Staying centered; keeping the modes in balance ... loving kindness meditation and “tai chi dance” helped in exploring control to give and take in moderation, when to push and pull and how hard or strong.”

Another student cited a specific example when s/he wrestled with the four modes in an argument with a sibling, and s/he was able to move from negative yielding, to positive assertive and positive yielding without being negative assertive:

I had a fight with my sibling and felt really sad and angry and normally I either cry and run away or stand and shout. But this time I practiced the right balance of positive assertive (letting him know how I felt) and positive yielding (accepting the fact that he wasn’t intentionally trying to hurt me instead of blaming him for everything ... it felt great to be able to handle a problem in a non-aggressive way ... I’m learning now how to deal with situations and people without getting too hot, overwhelmed.

Students were able to recognize their unique mode control profile, where it was positive, where “a challenge, and learned skills to increase their appropriate use of the two positive modes. One student pointed out how her control story helped her realize why she was so “negative yielding”

I always felt that no matter what I did or said the consequence would always be the same and everything that was going to happen was already planned ... I’m pretty sure this was because my grandma repeated to me day after day that my destiny was already set.

This student realized the importance of expanding her repertoire, and learning positive assertive. For others the positive yielding/accepting mode of control, which was a new concept to most students, was highlighted in terms of how important developing this skill was to them, as illustrated by their comments below:

— The most important thing I learned is to accept the things that I cannot change/ control ... before I start stressing about something now, I ask myself if it’s in the realm of my control or not. If the answer is no, I quickly accept it as is and move on. This empowers me because I don’t waste time dwelling on things I that I can’t do anything about.

— I’ve stopped trying to control so much. I used to go insane trying to control things but now I feel a sense of relief when I know there’s nothing I can do about a situation or circumstances.

— This class has helped me release active control and accept a more positive yielding approach to my life, the opposite of what I set out to do when I took it

Self-other agency. Again, students were able to learn about their own unique profile
regarding self and other agency. As noted in Fig. 2, one student felt an important increase in self as agency. Another student noted

The biggest change I see is viewing myself as an agent of control. I feel more confident and independent, less helpless when I stress; I believe I can control how I react to situations and am much more aware of my thoughts, feelings behaviors ... I can influence situations and don’t have to let my emotions control me;

Another student’s learning was just the opposite—s/he realized how others could be a positive source of control:

I realized through this class that I did not do everything on my own. I had help—from family, friends, even society. This understanding came to me in class. My fellow classmates who were once strangers ... I began to learn more about others. The ideas and thoughts in our discussion opened my mind to more than my own way of thinking. I learned to trust others through this class, and am more open to share my problems with others now.

Learning from the N = 1 projects: Some examples

The N = 1 project comments showed that students felt their efforts toward greater self-control were a “work in progress” but that there was progress.

Eating behavior. For example, a student with changes in eating habits and exercise as a goal, noted “setbacks—motivation seems to run out (exercise program), careful eating discipline seems to drain away” —yet the “trend” after eight weeks was more exercise per week, and better eating habits—decreasing sweets, smaller portions. “I really feel a difference between the person I used to be and the person I am now with regard to changing my eating habits.”

A different student began with the goal of changing “impulsive eating habits” —but shifted the goal to “increase inner monologue of self-love.” S/he used interventions of positive affirmations, mindfulness and diaphragmatic breathing and letting degrading thoughts “flow over a waterfall.” As a result of the project, “I spend a great deal of time thinking kind thoughts and thought stopping unkind thoughts. I see a great deal more beauty in myself than when I started and I have a great deal more acceptance as well. The project was from time to time difficult and required a fair amount of effort but after a while it became rather natural.”

Increasing motivation and study behavior. A student whose baseline was two hours of study per week, set a goal of fifteen hours per week, and wrote in the final evaluation: “I learned that “Control often went missing!” But I averaged nine hours per week. So an improvement.”

Decreasing negative assertiveness, (over control). Staying clam while expressing a point of view. Another student worked on “my tendency to be negative assertive in my relationships ... found I tend to desire more control over others when it is not my business to regulate their behavior ... still a work in progress ... but making really good progress.” A different student felt it important to be more assertive, but wanted to stay calm while doing so.
When I first walked into this class I knew very little of this aspect of myself regarding control. I realized I was quite negative in terms of how I resolved things. But through the weeks I was able to realize this negativeness and understand and convert it to something more positive. I believe that I have learned to how to gain control of most situations where I believed I was powerless over. For example, I have learned to control my emotions both with my friends and family by not answering back in a hasty or rude manner. Before the class I had trouble remaining calm during arguments. I am now able to be a stronger and more positive individual capable of knowing ways to gain control at any point my life.

_Decaasing Stress: self-compassion and forgiveness._ Finally, one student who was working on “decreasing stress” noted the self-observation and breathing techniques and mindfulness meditation helped “me connect to myself in a deeper and non-judgmental way. Learning how to be kind to myself during self-observations was particularly new to me. Finding that balance and letting go of the past was essential in order to move on in a positive direction, which involved self-forgiveness. It is through this class that I started to decrease and control my stress level, which has affected me physically and mentally on/off for the past six years.”

This comment on the positive benefits of the class for stress management was echoed by several other students:

— What I learned from this class will remain with me for the rest of my life and honestly changed my outlook on a lot of things. As a result I feel calmer and ready to take on my life.

— I took a lot from this class and hope to apply the techniques I have learned in every stressful or aggravating circumstance. It’s already helped me immensely to be more positive yielding especially with my family. I’m still working on dismissing all my negative assertiveness. It’s a slow process but I definitely have seen improvements and so has my family.

*Thank you for those valuable lessons.*

*(a three month follow up note): What I learned last quarter in this class has definitely helped me keep my sanity this quarter which has been super challenging, —seeming chaos swirling about (and within) —, but the meditation techniques have been super helpful ... the course had a very positive impact on me.*

**Journal cover examples**

Students were invited to be creative in their journal “cover”. Below are examples of the covers from three students’ “journals. The one on the left used a quote from Gandhi discussed in the class. The student wrote: “This quote gave me the motivation to improve myself and to know that this improvement would help the world around me ... it instilled in me the idea that I could not help others without first helping myself attain a level of self peace and balance.”
**Student anonymous evaluations at end of course**

Forms were given to each student at the end of the course to turn into the administrative office anonymously to evaluate the class. Of those who completed the anonymous evaluation (8 of 13 all agreed that the important ideas and concepts were clearly presented (87% strongly agreeing). All strongly agreed that students were encouraged to participate in class discussions; all agreed that the instructor was enthusiastic about conducting the course (87% strongly agreed); and all said s/he would feel comfortable seeking help (academic or otherwise from your instructor). Finally, overall teaching effectiveness was rated 4.5 on a 5 point (very good and excellent) scale.

**DISCUSSION**

This study was a preliminary “evaluation” of the effectiveness of the principles and practices of Control Therapy in the educational setting. The quantitative data is encouraging and the qualitative data is promising in terms of students’ self-reported improvement in mind-body connection, ability to adopt stress-management techniques, and capacity for acquiring a positive sense of control in their lives. The process of self-reflective journaling helped students see how actions and thoughts influence one’s goals, and when and if one should or should not take active control over a situation.

In terms of quantitative data pre and post, all measures trended in the positive direction: greater positive sense of control, more positive assertive and positive yielding, less negative assertive and negative yielding. In other words, at the end of the course compared to the beginning, students reported themselves as feeling a more positive sense of control, and strengthening positive and reducing negative ways of practicing either assertive or yielding control in various aspects of their lives. We may conclude from these results that students were able to learn principles of control theory and practice and apply them personally. This suggests that the teaching of the principles and practice of control therapy in an educational setting has promising possibilities.

Pre-post, students showed a significantly “lower” desire for control. We interpret this as a positive outcome. The initial pretest score (4.93) for this class is slightly higher than other control profiles of college students in general (4.80), and similar to adult children of
alcoholics (4.94; Shapiro, 1994, p. 99). At the end of the class their mean desire for control score was 4.57, quite similar to healthy adult respondents (4.56). Sometimes individuals under stress have a too high desire for control (and fear of losing control). It’s possible that as a result of transferring, these students’ desire for control scores were quite high, and as they adapted and felt more comfortable—both in general and through exploring these control issues in the class—theyir desire for control decreased to a more normative range.

Previous research has shown that individuals have unique control profiles and there is no “one size fits all” approach to addressing individuals’ control-related needs. (e.g., Shapiro, Lindberg, Daniels, Breuer, & Astin, 1994). This conclusion was borne out in this study as well. Even when students’ initial control profiles were quite different, they were able were able to match control enhancing strategies to their unique control profile and goal, to attain successful results.

The process of self-reflection, as noted, was important to the students, helping them learn about their unique control profile, their view of the role of control in personality theory (and goal of psychological health), and how to achieve appropriate use of the assertive/change and yielding/accepting modes of control. As one student noted

Before taking this class, I never made time to consciously analyze my priorities or even notice any changes in them. Now, I feel more in touch with myself. I have noticed major changes in the way I perceived major views in life, including my place in the universe or even my theory of humanity. For example, my theory of humanity has changed. At the beginning of class, I viewed humanity in a more simplistic way not considering people’s will. Now I take into consideration people’s will and the effect of the environment on them. This class has definitely stimulated my thoughts and impacted my personal goals. I have learned so much in this class that I plan to explore many of my areas of weakness in order to slowly achieve balance; I am willing to keep recognizing those areas of strength and to be grateful for them.

Limitations and future directions

There are clearly several cautions and limitations regarding this study. The most obvious one is needing additional studies to determine the generalizability of these findings. For example, this class was a small, self-selected sample at a single institution, with no control group. Therefore, it did not control for motivational variables, differences between these students and students at other universities, or the passage of time. To control for passage of time in future studies one could compare this class to other seminars (e.g., artists of the 1800’s) for transfer students matched by age and sex. A further study could use a time lag wait list design by identifying students interested in “exploring how you gain a positive sense of control” and randomly assigning half of them to the class one quarter, and half to the class the next quarter. Pre-post testing could compare intervention group to the wait-list group. This would control for the effects of time, expectation effects, and self-selection. A collaborative multi-institutional study involving several geographic regions and public and private universities would mitigate the effects of any characteristics or qualities unique to this transfer student population.
Further, though nearly all the data pointed to movement in the expected (positive) direction, effects sizes on the variables showed a range, from 6 effect sizes > .2; 5 effect sizes > .5, and two effect sizes greater than .8. Also, there were only two results that were significant at the < .05 level, and no correction for multiple comparisons was made. Therefore, these quantitative findings, though promising, need further replication with a large group sample. On the other hand, it should be noted that the N = 1 data and the qualitative data are quite important to consider, as the goal of the pedagogical intervention was not just pre and post shifts in the aggregate, but individual changes for each student based on their unique control profile and goals. From this perspective the results were quite promising, as noted in the results section.

One final caution is that this was an educational class, not group therapy (even though it was taught by a professor with experience as a clinician). Sensitivity to issues of “confidentiality” and level of self-exploration appropriate in an education setting need to be considered. There were no concerns or problems resulting from this class, but this is at least an issue to be aware of. Twelve of the 13 students wrote highly positive comments about the personal focus of the class. One student clearly had a negative experience, and that should be taken as a caution to potential adverse effects and explore how they might be best addressed. There may be potential psychological discomforts when students reflect on their thoughts or choices they have made in the past. If a student feels like he or she is not making progress towards his or her goal, he/ she may become distressed. In this class, the instructor noted this possibility at the start of the class, provided information on the university resources for “counseling and self-exploration”; monitored each student’s progress on a weekly basis, including their journals turned in at weeks 3 and 7, monitored their classroom participation, had office hours which he encouraged each to utilize. Yet, he “missed” the concerned student, and nothing was said by the student until the feedback at the end of the class.

Final Comment

While Control Therapy has been shown to be of value to individuals in psychotherapy, this is the first indication that the principles and practice of Control Therapy can have broader usage—i.e., in an educational setting. The Dalai Lama (2017) has recently called for an expansion of education—“my wish is that one day formal education will pay attention to the education for the heart, teaching love, compassion, justice, forgiveness, mindfulness, tolerance and peace.” He suggests that this expansion be applicable to all—those who believe in God, those who don’t. The principles and practice of Control Therapy involve a framework which is sensitive to a continuum of beliefs of self-agency, and other/Other agency (cf. Smith, 1983 on self and other power). Students in this class were Buddhist, Christian, existential/atheist, and agnostic. They were able to find ways to match their control strategies to their beliefs. Further, the SCI was developed to be culturally sensitive, and it has been translated into Korean (Park & Sung, 2008); Portuguese (Bogiazian, 2015); Chinese, (Liu & Chang, 2103; Lee, Chan, Kwok, & Hsu, 2005; Chia, Cheng, & Chuang, 1998; Zili & Taisheng, 2015); Spanish, (Santibañez, Galego, & Iraurgi, in press); and (versions are under development in German, French, Italian, Hebrew and
The importance of individuals finding ways to learn the skills of self-regulation, and to find ways to gain and re-gain a positive sense of control in their lives are critically important in all cultures, even if there are differences in emphasis on modes and agency of control (e.g., Weisz et al., 1984, in Japan; Shapiro, 1989, 1990 in Bali; Lee et al., 2005 in Hong Kong and Australia; Soh, Surgenor, Touyz, & Walter, 2007, North European Australian and Chinese Singaporean women).

Finally, as has been noted, this was a preliminary study. In scientific investigation there are four stages of research development. The first stage asks, is there something promising here to investigate. The last stage is a placebo controlled double blind study (including multiple institutions; multiple cultural contexts/countries; different types and levels of learners. Our intent in this study is to offer a promising “seedling” paper upon which others could then build. This class shows the potential for students to be able to learn the skills of gaining awareness through self-reflection on their control profile, learning to monitor their own behavior, setting self-directed goals, and learning to match appropriate control-enhancing techniques to help them achieve their goals (e.g., assertive/change mode of control and yielding/accepting mode of control strategies. Thus, the teaching the principles and practice of Control Therapy in an educational setting can have a positive impact on student’s lives—personally and interpersonally. It seems promising to continue this research, by adding appropriate control groups, and to expand and evaluate this teaching to other “grade levels” and to test its efficacy in educational settings in other cultures.

REFERENCES


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9 Writings of Shapiro (e.g., articles, books) on Control Therapy are available at no charge at Controlresearch.net. At that website under Networks/interests, there are articles including translations of the SCI into different languages (Chinese, Korean, Hebrew, Spanish); as well as articles on different content topics. Articles and books by Shapiro on meditation, self-control, psychological health can be found at no charge at DeaneHShapiroJr.org.


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