

UC Riverside

UCR Honors Capstones 2016-2017

Title

How Do University Students Think About Intensive Health Interventions? A Qualitative Study

Permalink

<https://escholarship.org/uc/item/7b66t7pp>

Author

Lopez, Leslie

Publication Date

2017-12-08

HOW DO UNIVERSITY STUDENTS THINK ABOUT INTENSIVE HEALTH
INTERVENTIONS? A QUALITATIVE STUDY

By

Leslie Lilybeth Lopez

A capstone project submitted for
Graduation with University Honors

May 11, 2017

University Honors
University of California, Riverside

APPROVED

Dr. Howard Friedman
Department of Psychology

Dr. Richard Cardullo, Howard H Hays Jr. Chair and Faculty Director, University Honors
Interim Vice Provost, Undergraduate Education

Abstract

Research on health interventions shows how valuable physical and mental health interventions are (Diehr, Derleth, Cai, & Newman, 2007), but research exploring participant attitudes or feelings towards these health interventions is scarce. We sought to explore how participants think and feel about different types of health interventions. In a longitudinal study, participants (N=110) were randomly assigned to one of five health intervention conditions: community gardening, indoor gardening, physical activity, spending time in nature, or a social film club. After engaging in their health behavior for four weeks, participants provided qualitative responses to two questions: “What was this experience like for you?” and 2) “Has this experience changed you in any way?” For the first question, we trained three coders to rate responses for positivity, negativity, stress, and growth. For the second question, the same coders rated positivity, negativity, and time management. Using one-way ANOVAS, we did not find any significant between group differences in expressions of positivity, negativity, stress, growth, or time management. Mean scores across groups suggest that participants felt moderately positive about the intervention (3.86 on a 1-5 scale), and also felt little negativity (1.39 on a 1-5 scale). These results, paired with further studies on the attitudes and thoughts of participants, can provide insight into how individuals experience health interventions. Such insight may ultimately encourage individuals to continue with their beneficial health behaviors.

Acknowledgements

I would like to express my profound gratitude to Dr. Howard Friedman of the Department of Psychology at UC Riverside for his guidance and support throughout this research process. I would also like to express gratitude to Dietlinde Heilmayr, who helped me achieve my goals and became a great mentor of mine. I am grateful to have worked with such influential people, and will treasure this experience forever. Thank you for your support, dedication, and care. I would not have made it to this point without you.

Table of Contents

| | |
|-----------------------|-----|
| Abstract..... | ii |
| Acknowledgements..... | iii |
| Introduction..... | 1 |
| Present Study..... | 2 |
| Method..... | 4 |
| Procedure..... | 6 |
| Results..... | 7 |
| Discussion..... | 10 |
| Tables..... | 15 |
| Appendix..... | 21 |
| Works Cited..... | 24 |

List of Tables

| | |
|---------------|----|
| Table 1..... | 15 |
| Table 2..... | 15 |
| Table 3..... | 16 |
| Table 4..... | 16 |
| Table 5..... | 17 |
| Table 6..... | 17 |
| Table 7 | 18 |
| Table 8..... | 18 |
| Table 9..... | 19 |
| Table 10..... | 20 |

Introduction

Good health is a critical component of a satisfying life, but how do individuals think about and experience interventions that seek to promote health? Though people typically know what they should be doing to be healthy, engaging in healthy behaviors is another matter. Investigation into the experiences and thoughts participants have about intensive health interventions is important to understand why individuals participate in and adhere to health interventions, and why they may drop out. Such insight may ultimately help health scientists and practitioners develop interventions that individuals will not only think about, but will engage in as well.

Lifestyle interventions guide individuals toward healthy behaviors that will culminate into patterns that may prevent health problems and promote future wellness (Anjali, 2015). Research suggests that health interventions can alter negative health behaviors, such as smoking, sedentary lifestyles, and alcohol abuse (Jepsen, Harris, Platt & Tannahill, 2010). Such lifestyle changes have been shown to save lives: the number of deaths from the three leading causes of death (cancer, stroke and heart disease) in the US has decreased from 2010 to 2014 due to preventative measures and intensive health interventions adopted by state and federal officials (CDC, 2016). A review by Kahn and colleagues showed that Physical Education based interventions in school settings improve physical activity in school aged children and improves their physical fitness for extended period of time (2002). Finally, a meta-analysis conducted by Plotnikoff and colleagues showed that 34 of the reported 41 health intervention studies showed significant improvements in the health behavior of interest (i.e., physical activity, diet, and weight loss; 2015). In sum, health interventions play an important role in modifying health

behaviors, and are beneficial for both physical and mental health (Diehr, Derleth, Cai, & Newman, 2007).

Though many health interventions have clear benefits, research on the attitudes and thoughts of participants partaking in health interventions is limited (Jepsen, Harris, Platt & Tannahill, 2010; Diehr, Derleth, Cai, & Newman, 2007). It is important for researchers to develop a comprehensive understanding of participant experiences in order to design interventions to which individuals are more likely to adhere. For example, a study by Palmer showed that undergraduate college students have positive attitudes toward online mental health interventions (2015). However, this study portrays positivity towards one form of intervention (internet-based), but does not delve into face-to-face or time-intensive studies. An additional meta-analysis suggests that preventative mental health interventions had significant positive results in improving depression and anxiety, and these effects endured 35 weeks after the preventative interventions (Conley, Shapro, Kirsch & Durlak, 2017). Of note, the researchers state that the university students generally rated the interventions positively because of the brevity of the interventions, and because of the facilitation by professionals. Additional insight into how individuals experience health interventions may improve future health interventions by increasing adherence and encouraging others to participate.

Present Study

The present study was designed to provide insight into the attitudes and thoughts of university students towards an intensive health intervention. Understanding how participants feel during health interventions will allow researchers to design interventions

that increase adherence, are individually tailored, and that will ultimately have a lasting effect. In this qualitative study, I sought to understand how the participants perceived their experiences in an intensive health intervention. This study was a part of a bigger longitudinal study, in which participants were randomly assigned to one of five conditions: community gardening, indoor gardening, physical activity, exposure to nature, or a social film club. Participants engaged in their assigned health behavior for two hours a week for four weeks. The participants completed a total of four surveys over the course of the study, at Times 1, 2, 3 and 4. The qualitative questions asked were (1) “What was this experience like for you” at Time 3, (2) “Has this experience changed you in any way?” at Time 4. Finally, to provide insight into whether participants continued health behaviors after external pressures of the study have been removed, we looked at how many participants continued with their health behavior three weeks after the intervention had ended using the question “Have you continued with your health behavior?”. Trained coders then rated these qualitative responses based on several constructs to quantify the qualitative responses.

Qualitative data provides insight that quantitative data may not expose. For example, if participants changed in a way that we did not measure, we may be able to pick up on such changes by carefully considering their qualitative responses. Specifically, we sought to understand the degree to which participants found the intervention experience to be stressful, positive, negative, and meaningful. We also wanted to understand the degree to which participants had to manage their time to fully complete the time-intensive study, and if they continued with their health behavior.

Method

Participants

The participants recruited for the study were undergraduate (94.9 %) and graduate (5.4%) students at the University of California, Riverside. Though a total of 138 participants were initially recruited for the study, 110 completed both pre- and posttest measures, and 88 participants completed the final measure three weeks after the intervention. The demographics for the 110 participants who completed the posttest are 37.7% Hispanic, 31.2% Asian American, 13.8% White, 6.5% Black, and 10.8% other. Students were recruited through the Psychology Subject Pool, bulletin board flyers, e-mails sent through The Well (an on-campus wellness organization), and promotion via organizations and clubs. Participants were assessed for eligibility by verbal confirmation that they were able to “partake in activities such as walking, gardening, watching films, eating fresh food, communing with nature, dancing, and playing video games.” By participating in the study, participants were entered into a drawing with prizes such as Lululemon gift cards, Camelbak water bottles, music speakers, and more. The participants received one entry into the drawing for each part of the study that they completed, and received two bonus entries for full completion.

Qualitative Measures

Six free response questions were asked throughout the study. Questions asked at Time 3 were: (1) “What was this experience like for you?”; (2) “What was a high point of this experience?”; (3) “What was a low point of this experience?” and (4) “Has this experience changed you in any way?” At Time 4, participants provided responses for the following questions and statements: (5) “Has this experience changed you in any way?”

(Change Time 4) and (6) “Have you continued with your health behavior”. The question “Has this experience changed you in any way?” was asked at two different time points, and we only focused on Time Point 4. For the purpose of the present study, we focused on the first and fourth questions (i.e., “Experience,” and “Change Time 4”), as well the degree to which participants continued with their health behavior (question 5: Continuance).

Coding Procedures

For “Experience,” we coded for we coded for positivity, negativity, growth and stress. For “Change” we coded for positivity, negativity, and time management. For continuance, we coded on a nominal yes, maybe, or no (1-3) scale for continuance with their health behavior. We chose to include a maybe scale because some participants expressed interest in continuing their health behaviors, but were not able to continue immediately. For example, some participants stated, "I would like to have a garden when I have my own home.”

In order to code the data, we trained two undergraduate research assistants from University of California, Riverside. Coders rated each qualitative response on a 1-5 scale based on the constructs of interest (e.g., positivity, negativity, etc.). To ensure coders were providing similar and consistent data, we provided detailed instructions, and we discussed examples of ambiguous responses, high scoring responses, and low scoring responses. There was a high interrater reliability consistency (greater than 0.75) amongst the raters (Table1). Appendix A shows the directions for coding, as well as example quotes and corresponding scores.

Procedure

The study began in Spring quarter of 2016. Participants were recruited and were randomly assigned to one of five conditions: community gardening, physical activity, exposure to nature, social film club, and indoor gardening. The community garden entailed going to the UCR community garden, in which the participants engaged in activities such as weeding, harvesting, and planting. The moderate physical activity entailed indoor physical activity based on printed exercise routines and online exercise videos. The indoor gardening condition entailed planting a basil seedling and radish seeds while at the workshop, and growing plants at home. The exposure to nature activity required sitting in a nature setting on or off campus, with restricted cell phone use. The social film club condition required attending weekly film screenings and discussing the film with peers.

Participants first completed pretest measures in the lab (Time 1) in which they reported on their physical health, well-being, happiness, health-relevant behaviors, and personality traits (Time 1). A week later, participants attended a workshop that corresponded with their assigned condition. The purpose of the workshop provided information about the health behavior and allowed participants to ask questions. Participants then completed a subset of these measures online during the four-week intervention period (Time 2). After the final health intervention week, participants completed posttest measures in the lab (Time 3). Three weeks after (Time 4), they completed the same online subset of measures as at Time 2. As a manipulation check, participants sent weekly date-stamped photo of themselves partaking in their assigned

activity. The participants were sent several messages throughout the week to remind them to engage in their activity and to send photos.

Results

To understand how the participants experienced the health interventions, we calculated means to get a sense of how the intervention was perceived overall, regardless of condition. We also used significance testing to provide insight into whether the experimental groups differed in their qualitative responses.

For “experience” (i.e., “What was this experience like for you?”), we analyzed the group differences based on our coding scheme for growth, positivity, negativity and stress using one-way ANOVAs. For “change” (i.e., “Has this experience changed you in any way?”), we analyzed group differences based on our coding scheme for time management, positivity, negativity using one-way ANOVAS. For Continuance (i.e., “Have you continued with your health behavior?”), we looked at the differences among groups in whether participants continued with their assigned health behavior after the conclusion of the intervention (coded as 1, 0 and 3 for yes, no, and maybe respectively) using a chi-square test of independence.

Experience

The first construct we looked at was positivity for the question “What was this experience like for you?” The mean rating for positivity for the full sample was 3.86 on a 1-5 scale, with higher numbers indicating more positivity. This number indicated that positivity for the full sample was in a midrange—not too positive or negative. There were no significant differences between groups for positivity, $F(4,105) = 4.86, p = 0.746$. This shows that among the five groups there was not a group that expressed significantly more

or less positivity in their response to “What was this experience like for you” compared with the other groups. Means and standard deviations of all groups can be found in Table 2.

Second, we analyzed group differences in expression of negativity to the “experience” question. The mean rating for negativity for the full sample was 1.39 on a scale of 1-5, with lower numbers indicating less negativity. There was not a significant difference between groups for negativity, $F(4,105) = 1.234, p = 0.302$. This suggests that groups did not vary in expressions of negativity in response to the question “What was this experience like for you?” Means and standard deviations of all groups can be found in Table 3.

Third, we analyzed group differences in feelings of growth to the “experience” question. The mean rating for growth for the full sample was 2.42 on a scale of 1-5. There were no significant between groups differences for growth, $F(4,105) = 0.684, p = 0.604$. This suggests that there were no between group differences in expressions of self growth in response to the question “What was this experience like for you?” Means and standard deviations of all groups can be found in Table 4.

Finally, we considered between group differences in expressions of stress for the “experience” question. The mean rating for stress was 1.36 on a scale of 1-5, with lower number indicating less stress. There was no significant effect between groups for stress, $F(4,105) = 1.711, p = 0.153$. This suggests that there were no significant between group differences in expression of stress in response to the question, “What was this experience like for you?” Means and standard deviations of all groups can be found in Table 5.

Change

For the question, “Has this experience changed you in any way?”, we first analyzed group differences in positivity. The mean rating for positivity for the full sample was 3.22 on a 1-5 scale, with higher numbers indicating more positivity. There was not a significant difference between groups in positivity, $F(4,105) = 0.802, p = 0.537$. This suggests that there were no significant between group differences in expression of positivity in response to the question “Has this experience changed you in any way?” Means and standard deviations of all groups can be found in Table 6.

Next, we looked at group differences in expressions of negativity in response to the question “Has this experience changed you in any way?” The mean rating for negativity for the full sample was 1.30 on a scale of 1-5, with lower number indicating less negativity. There was not a significant between groups difference for negativity, $F(4,105) = 0.925, p = 0.452$. This suggests that there were no significant between group differences in expression of negativity in response to the question, “Has this experience changed you in any way?” Means and standard deviations of all groups can be found in Table 7.

Finally, we looked at group differences in expressions of time management in response to the question “Has this experience changed you in any way?” The total mean rating among all groups for time management, was 1.70 on a scale of 1-5. There was not a significant effect between groups in time management $F(4,105) = 1.841, p = 0.126$. This suggests that there were no significant between group differences in expression of time management in response to the question, “Has this experience changed you in any way?” Means and standard deviations of all groups can be found in Table 8.

Continuance

For continuance, we looked at whether there were group differences in who had continued with their health behavior three weeks after the intervention ended. Pearson's Chi Square suggests that the groups did not differ in whether or not they continued their health behavior, $\chi^2(8) = 9.818, p = 0.278$. Only 10.8 percent of the population of participants reported a "2" (i.e. wanted to continue their health behavior but have not been able to at the moment). From the gardening group, 22.5% continued with their health behavior, while 19.1% of the nature group continued with their behavior. From the film group, 16.9% continued with their behavior, while 21.3% of the indoor gardening group continued with their health behavior. Lastly, 20.2% of the physical activity group continued with their health behavior.

Discussion

This study sought to explore college students' experiences and thoughts about intensive health interventions. In this longitudinal study, participants were randomly assigned to one of five health interventions. In order to better understand participant experiences and attitudes toward health interventions, we used qualitative responses to two questions: "What was this experience like for you?" and 2) "Has this experience changed you in any way?" For the first question, we coded for positivity, negativity, stress, and growth. For the second question we coded for positivity, negativity, and time management. We also measured the degree to which the participants continued with their health behavior after the intervention. In response to the two qualitative questions (i.e., "What was this experience like for you?" and "Has this experience changed you in any way?"), we found that participants tended to feel moderately positive for both questions (3.86 and 3.22 on a 1-5 scale, respectively) and felt little negativity (1.39 and 1.30 on a 1-

5 scale, respectively). Using one-way ANOVAS, we did not find any significant between group differences in expressions of positivity, negativity, stress, growth, or time management for the five conditions. A Pearson chi square also showed that there were no significant between groups differences for continuation of health behaviors.

Overall, participants seemed to feel positively about the experience. Comments such as “This was great experience to kick start a healthier lifestyle” or “[this study] Makes me realize I have a lot to offer to the world” suggest that this experience held a lot of importance to some of the participants. Such comments allow us to gain insight into why their experience was pleasant. Though there was a low level of negativity for the study, the negativity was mostly pertaining to the stress and time management issues correlated with this time intensive study. Comments such as “It was hard to take time away from my daily life as a college student to actually garden...” or “I was just really busy and stressed with a class that I could not allow myself to be 100% devoted to this study,” portray that time intensive health interventions may not be tailored to certain types of college students that have busy schedules or tend to get overwhelmed easily. Research has shown that college students have responded positively to “brief” health interventions (Conley, Shapro, Kirsch & Durlak, 2017). College students may be better suited for interventions that are not too time intensive but still have a lot of payoff and are effective, for example encouraging students to use stairs instead of elevators or encouraging them to bike or walk to campus rather than drive. Interventions such as these may help guide students to make healthy food choices or increase their physical activity, without taking too much time from their daily life.

Previous research has shown that health interventions can improve health behavior, such as diet or physical activity patterns (Jepson, Harris, Platt & Tannahill, 2010). Research has also shown that some health interventions have been rated positively by their participants (Palmer, 2015; Conley, Shapro, Kirsch & Durlak, 2017). This information, coupled with the results from the present study adds to the existing knowledge we have about health interventions and makes for a more comprehensive understanding about health interventions. For example, an understanding of their experience can help increase adherence because we know what participants like and what they did not. If they felt happy and gained valuable information, they may be more likely to adhere to their health behavior versus if their health behavior caused them stress throughout the study time period. These results can also help in adding information to what works for college participants, which can allow us to improve future campus based health interventions. We learned that the length and intensity of the study stressed some participants, which shows that shorter studies may be better suited for college students. All in all, the results from this study can expand on the knowledge we have on health interventions to improve and develop effective interventions.

The limitations of this study are that the sample was limited to university students, and because of this we do not know how the participant experience generalize to other samples. A second limitation is that, though we know that the participants had a generally positive experience, we do not know how much this positive experience influences future health intervention participation and adherence to other health behavior changes. Future research needs to be done to delve deeper into how positive experiences contribute to health interventions, and if positivity towards health interventions have a lasting effect on

continuation of health behaviors. A study that may contribute to a more comprehensive understanding of how participants experience health interventions would be to have several different types of health interventions (online, in person, longitudinal, one time) focusing on a single health behavior, and to see if there are differences among groups in measures of positivity and adherence. Another study that would offer insight into how participants experience health interventions would be to assess how positivity towards a health intervention predicts continuation of the behavior.

In this study, we found that there was not a between group difference in positivity, negativity, growth, stress, or time management. Though some of the conditions were more demanding than others, such as pulling weeds in the garden versus sitting in nature, they all felt moderately positive about their health intervention. This can possibly mean that all participants felt as though they were benefitting and gaining something valuable from the interventions, such as knowledge. Another implication from these results may be that the content of the health intervention may not matter as much as how positive participants feel about the intervention. Even if the intervention has the potential to be highly beneficial, it will not have an effect if participants cannot or do not adhere. Thus, promoting positive feelings for an intervention may be an important component of health intervention development. An additional implication is that a participant in a study may not be inclined to feel negatively about the health condition they are in because they cannot compare it to others. Because participants do not know what their counterparts experiences are, or what their health behavior is, they cannot feel as though their health behavior is the least desirable of the choices. For example, some participants may have preferred a less intense intervention, such as sitting in nature, than a highly intense one,

such as pulling weeds in the sun. If the participant knew about the different health intervention, they may have felt inclined to feel negatively about the one they were assigned too.

This study can also offer insight into the Transtheoretical Model of Change theory, which states that individuals change their health behavior in five steps. The responses to the qualitative questions can give a better understanding into one of these stages: action. The action stage is when people make palpable changes and modifications to their health behaviors. The experiences and thoughts the participants had after completing this study can help us gain an understanding about what their future actions, if any, entail and how their experience in the study influenced it. With further research, we can probe deeper into the experiences and motivations participants have in an intensive health interventions in order to understand the mechanisms for adherence and engagement in health interventions.

Tables and Figures

Table 1
Interclass Correlation

| Experience | ICC | Change | ICC |
|------------|-------|-----------------|-------|
| Positivity | .792% | Positivity | .779% |
| Negativity | .776% | Negativity | .757% |
| Growth | .868% | Time Management | .812% |
| Stress | .816% | | |

Table 2
Ratings of Positivity for the Question "What Was this Experience Like for You?"

| Activity | <i>M</i> | <i>SD</i> |
|-------------------|----------|-----------|
| Garden | 3.66 | 1.26 |
| Nature | 4.10 | 0.86 |
| Film Club | 3.48 | 1.20 |
| Indoor Gardening | 3.28 | 0.94 |
| Physical Activity | 3.87 | 1.06 |
| Total | 3.68 | 1.09 |

Table 3
Negativity Ratings for the Question "What Was this Experience Like for You?"

| Activity | M | SD |
|-------------------|------|------|
| Garden | 1.60 | 1.20 |
| Nature | 1.22 | 0.67 |
| Film Club | 1.38 | 0.84 |
| Indoor Gardening | 1.35 | 0.90 |
| Physical Activity | 1.41 | 0.94 |
| Total | 1.39 | 0.93 |

Table 4
Growth Ratings for the Question "What Was this Experience Like for You?"

| Activity | M | SD |
|-------------------|------|------|
| Garden | 2.32 | 1.13 |
| Nature | 2.70 | 1.36 |
| Film Club | 1.62 | 0.83 |
| Indoor Gardening | 2.51 | 1.16 |
| Physical Activity | 2.98 | 1.26 |
| Total | 2.42 | 1.23 |

Table 5
Stress Ratings for the Question "What Was this Experience Like for You?"

| Activity | M | SD |
|-------------------|------|------|
| Garden | 1.52 | 1.09 |
| Nature | 1.10 | 0.37 |
| Film Club | 1.23 | 0.61 |
| Indoor Gardening | 1.41 | 0.84 |
| Physical Activity | 1.54 | 0.96 |
| Total | 1.36 | 0.82 |

Table 6
Positivity Ratings for the Question "Has this Experience Changed You In Any Way?"

| Activity | M | SD |
|-------------------|------|------|
| Garden | 3.32 | 1.31 |
| Nature | 3.31 | 1.14 |
| Film Club | 2.87 | 1.15 |
| Indoor Gardening | 3.11 | 1.25 |
| Physical Activity | 3.50 | 1.26 |
| Total | 3.22 | 1.22 |

Table 7
Negativity Ratings for the Question "Has this Experience Changed You In Any Way?"

| Activity | M | SD |
|-------------------|------|------|
| Garden | 1.38 | 0.60 |
| Nature | 1.31 | 0.46 |
| Film Club | 1.30 | 0.49 |
| Indoor Gardening | 1.26 | 0.60 |
| Physical Activity | 1.27 | 0.40 |
| Total | 1.30 | 0.55 |

Table 8
Time Management Ratings for the Question "Has this Experience Changed You In Any Way?"

| Activity | M | SD |
|-------------------|------|------|
| Garden | 1.57 | 0.87 |
| Nature | 1.75 | 0.83 |
| Film Club | 1.63 | 1.00 |
| Indoor Gardening | 1.62 | 0.91 |
| Physical Activity | 1.90 | 0.95 |
| Total | 1.70 | 0.92 |

Table 9

“How was this Experience Like for You?” Example Responses

| | |
|------------|--|
| Positivity | This experience was a good one! It had me think about my health a lot more and had me realize just how much calorie intake I was receiving compared to the amount of exercise that I needed. |
| Negativity | Honestly, I didn't feel much of a difference from signing up to the end of this experiment. |
| Growth | This experience helped me take a step back from my busy routine of school and work and focus a little more on my well-being. |
| Stress | A little stressful, I would go about my day and think "did I water my plants?" |

Table 10

“Has this Experience Changed You?” Example Responses

| | |
|-----------------|--|
| Positivity | This experience has made me aware of my emotions and how satisfied I feel with the relationships I currently have. It has made me want to be happier and actually try to be happier. |
| Negativity | Unfortunately, no. After the study ended, and I came back home for the summer, I have reverted back to my unhealthy ways. |
| Time Management | This was kind of challenging because I found that it is really difficult to get everything done and get some exercise in. My daily activities involve running around and lifting heavy things that could be considered exercising anyway, but that doesn't count for this study. I had to go out of my way to do cardio, which was hard to do. |

Appendix A

Coding:

We are seeking to understand the experiences participants have towards health interventions. In order to do so, we will be using the qualitative responses to code for different subjects pertaining to each question. We will be coding on a scale of 1-5.

Question1: What was this experience life for you?

Positivity: How positive was your experience in the study?

- Scaled from 1-5
- 1-low on positivity to 5-high on positivity
- Key words such as: good, enjoyable, useful,
- Examples: A high response would be “My experience was neat;” “I had fun;” “It was cool;” “I enjoyed it;” while a moderate response would be “Unique” or “It was okay.” A low response would be “No;” “I felt it had no purpose” or “It didn’t do anything”.

Negativity: How negative was your experience?

- Scaled 1-5
- 1-low on negativity to 5-high on negativity
- Key words such as: bad, not useful,
- Example: A high response towards negativity would be “It sucked,” “I hated it,” or “Why did I do this”. The highly negative responses will be obvious because they will use language that portrays their satisfaction in the study, such as “hate” or “dislike” or “pointless.” If they say “At first it was fun, but then I started to hate it”, this would still qualify as a highly negative response because they ended the study hating it. A moderate response would be “it was okay.” A low response is one that views the study positively.

Growth: Did the participant grown in any way?

- Scaled 1-5
- 1-No growth to 5 a lot of growth.
- Example: A high response for growth would be “I find myself gardening a lot;” “It helped me realize that nature is important;” “It helped me...stay focused, be happier, be healthier..” A low response would be “It had no purpose;” “I feel the same;” “I already garden so it didn’t make a difference;” “I already exercise so I didn’t care for the study.”

Stress: How much stress did this experiment cause you? Did it help with stress?

- Scaled 1-5
- 1-Low on stress to 5-high on stress
Examples: A high rating response would be “There was so much going on, the study stressed me out even more.” A low rating response would be “I felt nature helped me handle stress.” A moderate response would state that this study neither stressed them out or helped with stress.

Question 2: Has this experience changed you in any way?

Positivity: How positive was your experience in the study?

- Scaled from 1-5
- 1-low on positivity to 5-high on positivity
- Key words such as: good, enjoyable, useful,
- Examples: A high response would be “My experience was neat;” “I had fun;” “It was cool;” “I enjoyed it;” while a moderate response would be “Unique” or “It was okay” A low response would be “No;” “I felt it had no purpose” or “It didn’t do anything”.

Negativity: How negative was your experience?

- Scaled 1-5
- 1-low on negativity to 5-high on negativity
- Key words such as: bad, not useful,
- Example: A high response towards negativity would be “It sucked;” “I hated it;” “Why did I do this.” The highly negative responses will be obvious because they will use language that portrays their satisfaction in the study, such as “hate” or “dislike” or “pointless.” If they say “At first it was fun, but then I started to hate the study” this would still qualify as a highly negative response because they ended the study hating it. A moderate response would be “it was okay.” A low response is one that views the study positively.

Time Management: Where you able to improve time management, or did the study cause it to diminish or worsen?

- Scaled 1-5
- 1-Time Management was very hard to 5- it improved
- Example: A high rating response would be “Having so much to do really allowed me to organize my time.” A moderate response would be: “It was difficult to manage time, but I was able to find a way around it.” A low response would be “This study made me get behind on school work.”

Works Cited

- Anjali, Sabharwal M. (2015). Effectiveness of lifestyle intervention among college students: an overview. *Journal Nutrition Food Science*, 5: 363.
- CDC estimates preventable deaths form 5 leading causes. (2016). Retrieved from <https://www.cddc.gov/media/releases/2016/p1117-preventable-deaths>
- Diehr P., Derleth A., Cai L., Newman A.B. (2007). The effect of different public health interventions on longevity, morbidity, and years of healthy life. *BMC Public Health*, 2007; 7: 52. Published online 2007 Apr 5. doi: 10.1186/1471-2458-7-52.
- Conley C.S., Shapiro J.B., Kirsh A.C., Durlak J.A. (2017). A meta-analysis of indicated mental health prevention programs for at risk higher education students. *J Couns Psychology*, 64(2): 121-140.
- Jepson R.G., Harris F.M., Platt S. & Tannahill C. (2010). The effectiveness of health interventions to change six health behaviors: a review of reviews. *BMC Public Health*, 10: 538.
- Palmer K. (2015). Undergraduate college student's attitudes about internet-based mental health onterventions. *Graduate Theses and Dissertations*. Retrieved from <http://scholarcommons.usf.edu/etd/575>
- Plotnikoff R.C., Costigan S.A., Williams R.L., Hutchesson M.J., Kennedy S.G., Robards S.L., Allen J., Collins C.E., Callister R., Germov J. (2015). Effectiveness of interventions targeting physical activity, nutrition, and healthy weight . *International Journal of Behavioral Nutrition and Physical Activity*, 12:45.

Kahn EB, Ramsey LT, Brownson RC, Heath GW, Howze EH, Powell KE.
(2002). The effectiveness of interventions to increase physical activity. *American Journal of Preventive Medicine*, 22(4S): 73–107. DOI: 10.1186/s12966-015-0203-7