

**Students' Ability to Differentiate Between Healthy and Unhealthy Stress:
PSYC321 Final Research Project**

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Students' Ability to Differentiate Between Healthy and Unhealthy Stress:

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Abstract

This study was conducted to explore the research question: Can students differentiate between healthy and unhealthy stress? How do coping mechanisms differ as number of different upcoming deadlines increase? It was predicted that students who are better able to differentiate between healthy and unhealthy stress will have healthier coping mechanisms, despite the number of upcoming deadlines that they have. Healthy coping mechanisms was defined as having a higher COPE inventory score on engagement compared to disengagement. Similarly, unhealthy coping was defined as a higher score for disengagement than engagement on the COPE inventory. Tobin (1985) defined engagement as the attempts by the individual to actively engage in efforts to manage their stressful situation. In contrast, disengagement was defined as strategies that likely result in the individual avoiding thoughts about the situation and refraining from behaviours that may change their stressful situation. One hundred students at The University of British Columbia were selected using a convenience-sampling method to take part in an online modified COPE inventory questionnaire. The results did not support our hypothesis. It was found that 59.4% of participants correctly identified their method of coping with stress (healthy or unhealthy), but although students were able to differentiate between healthy and unhealthy stress, this did not appear to be correlated with having healthier coping mechanisms.

Keywords: students, healthy stress, unhealthy stress, coping mechanisms

Students' Ability to Differentiate Between Healthy and Unhealthy Stress

Method

Participants

One hundred students from The University of British Columbia were selected using a convenience sampling method. The final participant population consisted of 31 males and 69 females. The participant population ranged from first year to PHD level. The mean year of study was third year.

Conditions

In this study, participants were asked to disclose the number of upcoming deadlines which were one of the following; mid term, paper, final, assignment, presentation and other. The number of upcoming deadlines was the independent variable. Furthermore, the dependent variable was the participant's individual COPE scores and the individual's self-reported coping ability.

Measure

Materials used were The Coping Strategies Inventory-Short Form 32 (Figure 22) (Tobin, 1985) which was manually transferred onto www.SurveyPlanet.com (Survey Planet, 2015) to create an online survey. Further demographic questions were also added.

Procedure

Participants were selected using a convenience sampling method at various times and dates throughout the month of March. The online survey was distributed electronically to participants using laptops. At the beginning of our survey there was a consent notice stating that by proceeding with the survey, the participant has agreed to consent to being a participant in the study. Participants were informed that they were allowed to discontinue participation at any point. The survey was distributed online via the online social networking website Facebook and distributed face-to-face in various locations at The University of British Columbia: Walter C. Koerner Library, The Centre for Interactive Research on Sustainability, Irving K. Barber Library, Neville Scarfe Building, and The Student Union Building. Participants approached face-to-face were offered candy as compensation to participate in the study. Pamphlets from The UBC Wellness Centre (See Figure 13) regarding anxiety and stress were readily available to participants in the case that the survey triggered any negative emotions or if the participant wanted to seek further information regarding campus resources.

Results

Data analysis showed that as number of deadlines increased from 1-3, the amount of engagement decreased and the amount of disengagement increased (See Figure 25-26). However, as number of deadlines increased from 3-5, the amount of engagement increased and the amount of disengagement decreased (See Figure 25-26). Results also showed that 59.4% of participants correctly identified their method of coping with stress, with 40.6% of participants incorrectly identifying their coping style.

Discussion

The results of this experiment disconfirm the hypothesis of students who are better able to differentiate between healthy and unhealthy stress will have healthier coping mechanisms, despite the number of upcoming deadlines that they hold.

There are many limitations identified for this study. As for all self-report questionnaire studies, we can only infer correlation not causation. As well as having n=100 participant population, which represents ~.0025% of the total University Of British Columbia student population. This is a big limitation for our results as we cannot generalize or make definitive statements. Further, self-report bias is affected by participant' motivation, honesty, memory, and ability to respond. This study also utilized a very specific population: the researchers' social media networks including friends and family, and also participants convenience-selected at locations on campus. There was also the use of The Shortened COPE Inventory which might have affected the results of our study, possibly leaving out important data/trends that could have been captured using the full 72-item COPE inventory questionnaire (See figure 14). Lastly, this study did not use true random selection of participants, which may have affected our final results.

Strengths of the study include the use of the COPE inventory since it's validity has been tested numerous times in various studies (Tobin, 2001). The factor structure supports the relationship between the scales the hierarchical relationship and the proposed subscales. The factor structured consisted of 3 subscales, where there was 8 primary factors investigated how participants perceived stress in terms of problem solving, social support, wishful thinking and so forth. There were 4 secondary factors that streamlined into 2 tertiary factors of engaged or disengaged. The criterion validity was successful since the CSI (Tobin, 2001) was able to clinically differentiate a sample of depressed from non-depressed participants. Lastly, the construct validity, which studied the link between the CSI and other, constructs relating to stress and coping academic literature. Several studies have suggested that the CSI is able to correctly depressive amongst participants under high stress (Tobin et al, 1983).

Implications of our results are that the majority of students (from our study) can accurately appraise their coping style. We found that the students in our study use both engaging and disengaging coping styles simultaneously. We can suggest that when students are more disengaged in their coping strategies, students can experience an increased amount of negative outcomes due to stress, such as negative effects on physical, mental, and social well-being. We further suggest that when an individual's' balance of styles is dominated by engagement, the individual may receive positive implications of their stressors such as motivation and feelings of competence.

We suggest a further study could look at a specific population of international students attending UBC. These students may face additional stressors compared to local students as many of them are further from home and also pay a much higher tuition. It could be interesting to look at whether or not these students have more varying healthy and unhealthy coping strategies because of these extra variables that could affect the amount of stress that one might have. For example, perhaps pressure of doing well in school is more prominent in international students because of the increased costs of failing a course compared to a student who pays local tuition.

Recommendations for UBC

From our results, we have several recommendations for UBC where our results might be incorporated and utilized. On campus resources such as UBC Mental Health Awareness Club, UBC Wellness Centre, SpeakEasy, or UBC Counselling Services may incorporate this knowledge to initiate a conversation on stress management specifically tailored to UBC students. We believe it is important to have a future study that examines how mental health issues (such as stress) are currently being addressed on campus and evaluate whether or not students are receiving the resources they want or need. Currently, UBC addresses stress related issues through workshops, campaigns and campus wide programs (Health & Wellness at UBC) however there appears to be a discrepancy between the availability, knowledge, and use of these resources. For example, The UBC Live Well website provides an abundance of information on wellness topics including stress, however we believe this resource is underutilized. Focus could lie more on preventative approaches to stress issues.

We also recommend that UBC increase student awareness of support services through more innovative means. Some more specific suggestions we have to promote services including having student reps make quick announcements to classes about related events and resources during high periods of stress such as midterms. We believe that it is important that a peer makes these announcements as it encourages student engagement by increasing relatability. Having a peer deliver these types of messages breaks down social barriers that may exist on this topic. The Ubyyssey could include a short survey like the COPE, which allows student access to complete in their own time. While also listing resources so individuals might become aware of their coping style and reach out if their score concerns them. It is also of importance to have RezLife hold more meetings or events for residents where they discuss stress coping or prevention strategies that might normalize the conversation on stress.

References

Health & Wellness at UBC. (n.d.). Retrieved April 6, 2015, from <http://you.ubc.ca/ubc-life/support/health-wellness/>

SurveyPlanet. (2015). Retrieved March 1, 2015, from <http://www.surveyplanet.com>

Tobin, D. (1985). Scoring Information For the CSI-S. Retrieved March 25, 2015, from http://www.ohiopsychology.com/files/images/holroyd_lab/CopingStrategiesInventory32item.pdf

Question 1 of 44

Welcome to our study. We are running a survey on stress in students' lives as our group project for the PSYC 321-Environmental Psychology course. The survey will take about 4 minutes to complete. You will answer a series of questions on stress in your life in the survey.

Your participation in this survey is entirely voluntary and anonymous. You can refuse to participate or withdraw from the survey at any time. Your identity will be kept strictly confidential. All documents will be identified only by code number and stored securely. You will not be identified by name in any reports of this study. Data in this survey will only be accessed by the students, the course instructor, and the teaching assistant. Results of this study will be used to write a research report. There are no risks associated with participating in this survey. If you have any questions about the study, please contact us below.

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Celine To: celineto20@gmail.com // (604) 780-0774
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You can also contact the course instructor, Dr. Jiaying Zhao, assistant professor in the Department of Psychology and the Institute for Resources, Environment and Sustainability at UBC. Dr. Zhao can be reached at at 604-827-2203, or environmentalpsychology321@gmail.com.

If you consent to participate in this study, please proceed to the following question. Thank you.

Continue

Question 2 of 44

If you are a student, what year or grade are you in?

Question 3 of 44

What gender do you identify with?

Question 4 of 44

In the next two weeks, do you have any of the following school related deadlines?

paper

Figure 1. Survey outlining the consent information of the survey (Pg. 1 of 12)

paper

group project

presentation

midterm

final

not applicable - I do not have any deadlines in the next two weeks

If other deadline not listed here, please specify:

Question 5 of 44

Please indicate how many days away the deadline(s) is.

Question 6 of 44

In the past two weeks, have you come across any unexpected stressful events? For example: a break up, loss of a pet or loved one, loss of a job, etc. If so, please rate how stressful this event has been.

not at all stressful

a little stressful

somewhat stressful

very stressful

not applicable - I did not experience an unexpected stressful event

Question 7 of 44

In the past two weeks, how satisfied have you been with the outcome of the tasks you have completed

Very Unsatisfied

Unsatisfied

Satisfied

Very Satisfied

Figure 2. Survey pg. 2 of 12

For all the following questions, think about a stressful task or event that you've had in the past two weeks.

I worked on solving the problems in the situation Question 9 of 44

not at all
 a little
 somewhat
 much
 very much

I looked for the silver lining, so to speak; I tried to look on the bright side of things Question 10 of 44

not at all
 a little
 somewhat
 much
 very much

I let out my feelings to reduce the stress. Question 11 of 44

not at all
 a little
 somewhat
 much
 very much

Figure 3. Survey pg. 3 of 12

The image shows a screenshot of a survey page with four questions. Each question is followed by five radio button options: 'not at all', 'a little', 'somewhat', 'much', and 'very much'. The questions are:

- Question 12: I found somebody who was a good listener.
- Question 13: I went along as if nothing were happening.
- Question 14: I hoped a miracle would happen.
- Question 15: I realized that I was personally responsible for my difficulties and really lectured myself.

Figure 4. Survey pg. 4 of 12

The image shows a screenshot of a survey with four questions. Each question is presented in a light orange box with a darker orange border. The questions are:

- Question 16 of 44:** "I spent more time alone." with radio button options: not at all, a little, somewhat, much, very much.
- Question 17 of 44:** "I made a plan of action and followed it." with radio button options: not at all, a little, somewhat, much, very much.
- Question 18 of 44:** "I looked at things in a different light and tried to make the best of what was available." with radio button options: not at all, a little, somewhat, much, very much.
- Question 19 of 44:** "I let my feelings out somehow." with radio button options: not at all, a little, somewhat, much, very much.

Figure 5. Survey pg. 5 of 12

The image shows a survey page with four questions, each with five radio button options. The questions are:

- Question 19 of 44:** "I let my feelings out somehow." Options: not at all, a little, somewhat, much, very much.
- Question 20 of 44:** "I talked to someone about how I was feeling." Options: not at all, a little, somewhat, much, very much.
- Question 21 of 44:** "I tried to forget the whole thing." Options: not at all, a little, somewhat, much, very much.
- Question 22 of 44:** "I wished that the situation would go away or somehow be over with." Options: not at all, a little, somewhat, much.

Figure 6. Survey pg. 6 of 12

The image shows a survey page with four questions, each with five radio button options. The questions are:

- Question 23: "I blamed myself." with options: not at all, a little, somewhat, much, very much.
- Question 24: "I avoided my family and friends." with options: not at all, a little, somewhat, much, very much.
- Question 25: "I tackled the problem head on." with options: not at all, a little, somewhat, much, very much.
- Question 26: "I asked myself what was really important, and discovered that things weren't so bad after all." with options: not at all, a little, somewhat, much, very much.

Figure 7. Survey pg. 7 of 12

The image shows a screenshot of a survey with four questions. Each question is presented in a separate section with a light orange background. The questions are:

- Question 27 of 44:** "I let my emotions out." with radio button options: not at all, a little, somewhat, much, very much.
- Question 28 of 44:** "I talked to someone that I was very close to." with radio button options: not at all, a little, somewhat, much, very much.
- Question 29 of 44:** "I didn't let it get to me; I refused to think about it too much." with radio button options: not at all, a little, somewhat, much, very much.
- Question 30 of 44:** "I wished that the situation had never started." with radio button options: not at all, a little, somewhat, much, very much.

Figure 8. Survey pg. 8 of 12

The image shows a screenshot of a survey page with a light orange background. It contains four questions, each with five radio button options. The questions are:

- Question 31: "I criticized myself for what happened." with options: not at all, a little, somewhat, much, very much.
- Question 32: "I avoided being with people." with options: not at all, a little, somewhat, much, very much.
- Question 33: "I knew what had to be done, so I doubled my efforts and tried harder to make things work." with options: not at all, a little, somewhat, much, very much.
- Question 34: "I convinced myself that things aren't quite as bad as they seem." with options: not at all, a little, somewhat, much.

Figure 9. Survey pg. 9 of 12

The image shows a screenshot of a survey with four questions. Each question is presented in a light orange box with a darker orange border. The questions are:

- Question 35 of 44:** "I got in touch with my feelings and just let them go." with radio button options: not at all, a little, somewhat, much, very much.
- Question 36 of 44:** "I asked a friend or relative I respect for advice." with radio button options: not at all, a little, somewhat, much, very much.
- Question 37 of 44:** "I avoided thinking or doing anything about the situation." with radio button options: not at all, a little, somewhat, much, very much.
- Question 38 of 44:** "I hoped that if I waited long enough, things would turn out OK." with radio button options: not at all, a little, somewhat, much.

Figure 10. Survey pg. 10 of 12

Question 39 of 44

Since what happened was my fault I really chewed myself out.

not at all

a little

somewhat

much

very much

Question 40 of 44

I spent some time by myself.

not at all

a little

somewhat

much

very much

Question 41 of 44

Are there certain issues or tasks that motivate you? If so, please specify.

Characters Needed: 2 Characters Remaining: 500

Question 42 of 44

Are there certain issues or tasks that inhibit your productivity? If so, please specify.

Characters Needed: 2 Characters Remaining: 500

Figure 11. Survey pg. 11 of 12

The image shows a quiz interface with three questions. The first question is a text input field. The second and third questions are multiple-choice. A 'Submit' button is at the bottom.

Question 42 of 44
Are there certain issues or tasks that inhibit your productivity? If so, please specify.

Characters Needed: 2 Characters Remaining: 500

Question 43 of 44
You believe you are able to cope with stress in healthy ways.

- Very disagreeable
- Disagreeable
- Neither agree nor disagree
- Agreeable
- Very Agreeable

Question 44 of 44
When looking at the past two weeks, you feel like you have coped with stress in a healthy way.

- Very Disagreeable
- Disagreeable
- Neither agree nor disagree
- Agreeable
- Very Agreeable

Submit

Figure 12. Pg. 12 of 12



Figure 13. Pamphlets available to participants in the case anyone wanted to seek resources regarding stress/anxiety



Figure 14. COPE Inventory Manual (Pg. 1 of 8)

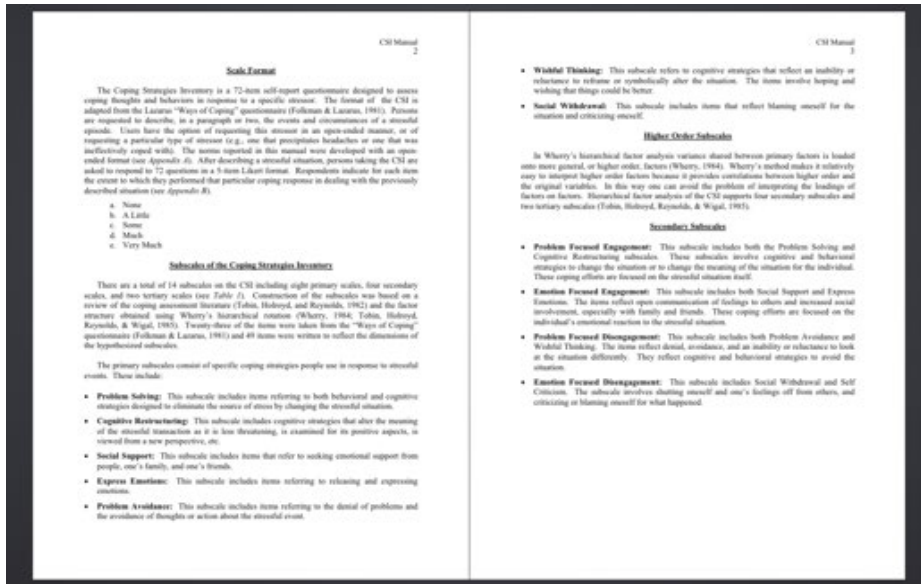


Figure 15. COPE Inventory Manual (Pg. 2 of 8)

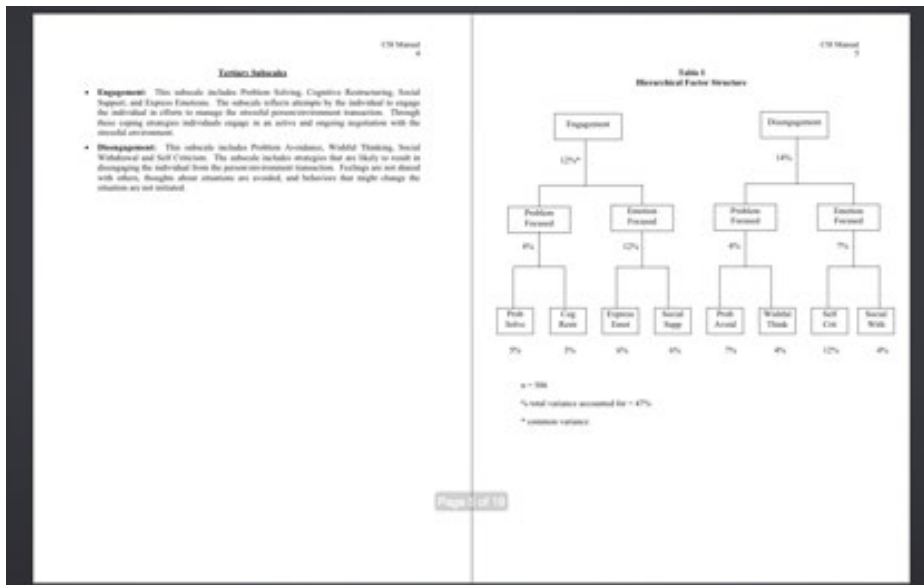


Figure 16. COPE Inventory Manual (Pg. 3 of 8)



Figure 17. COPE Inventory Manual (Pg. 4 of 8)



Figure 18. COPE Inventory Manual (Pg. 5 of 8)



Figure 19. COPE Inventory Manual (Pg. 6 of 8)



Figure 20. COPE Inventory Manual (Pg. 7 of 8)

CBI Manual
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Here means and standard deviations for a sample of college students is presented for comparison purposes (see Table 4).

Table 4
Means from Means and Standard Deviations

| | Males (n = 199) | | Females (n = 126) | | F |
|-------------------------|--------------------|------|----------------------|------|-----------|
| | mean | sd | mean | sd | |
| Primary Scales | | | | | |
| Problem Solving | 3.00 | .80 | 3.01 | .79 | .20 |
| Cognitive Restructuring | 2.93 | .76 | 3.06 | .75 | 0.62 ** |
| Express Emotions | 2.45 | .85 | 2.85 | .88 | 16.54 *** |
| Social Support | 2.45 | .90 | 2.24 | 1.00 | 40.90 *** |
| Problem Avoidance | 2.14 | .68 | 2.22 | .69 | 3.23 |
| Wishful Thinking | 1.91 | .65 | 1.14 | .69 | 74.2 ** |
| Self Criticism | 2.51 | 1.18 | 2.27 | 1.19 | 6.29 ** |
| Social Withdrawal | 2.53 | .76 | 2.29 | .79 | 19.80 |
| Secondary Scales | | | | | |
| Problem Focusing Engag | 2.89 | .66 | 3.05 | .68 | 1.85 |
| Emotion Focusing Engag | 2.53 | .76 | 3.04 | .86 | 62.66 *** |
| Problem Focusing Diseng | 2.37 | .61 | 2.70 | .67 | 7.86 ** |
| Emotion Focusing Diseng | 2.52 | .81 | 2.28 | .81 | 18.06 *** |
| Tertiary Scales | | | | | |
| Engagement | 2.76 | .87 | 3.04 | .88 | 31.20 *** |
| Disengagement | 2.55 | .60 | 2.40 | .62 | 1.76 |

** p<.05 *** p<.001

CBI Manual
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Reliability

Chronbach's alpha has been the most frequently reported coefficient of reliability for measures of coping processes. The alpha coefficients for the CBI range from .71 to .94 (p. 83).

To date, no other measures of coping processes have reported test-retest reliability. Repeated assessments of coping processes present problems that are not encountered with trait measures. Natural stresses may change over time to the extent that new ways of coping are demanded. When faced with a chronic stressor, people may try alternative strategies over a period of time. Different stressors may require very different ways of coping.

Research with the CBI has demonstrated some of these difficulties. When persons are asked to complete the CBI at several assessments, many people complete the scale with reference to different stressors. Two week test-retest Pearson correlation coefficients reflect the effect of these different situations on coping; the correlations range from .39 to .61 (p. 75). Both alpha coefficients and the Pearson correlations indicate the scale reliably assesses coping processes (see Table 5).

Figure 21. COPE Inventory Manual (Pg. 8 of 8)

SCORING INFORMATION FOR THE CSI-S**Primary Subscale Items** (alpha average .70)

Problem Solving = 1, 9, 17, 25

Cognitive Restructuring = 2, 10, 18, 26

Express Emotions = 3, 11, 19, 27

Social Contact = 4, 12, 20, 28

Problem Avoidance = 5, 13, 21, 29

Wishful Thinking = 6, 14, 22, 30

Self Criticism = 7, 15, 23, 31

Social Withdrawal = 8, 16, 24, 32

To calculate the secondary and tertiary subscale scores, simply add together the primary scales that make up that subscale (see users manual).

Secondary Subscale Items (alpha average .80)

Problem Focused Engagement = Problem-Solving + Cognitive-Restructuring

Emotion Focused Engagement = Social Contact + Express Emotions

Problem Focused Disengagement = Problem Avoidance + Wishful-Thinking

Emotion Focused Disengagement = Social-Withdrawal +Self Criticism

Tertiary Subscale Items (alpha average .90)

Engagement = Problem Focused Engagement + Emotion Focused Engagement

Disengagement = Problem Focused Disengagement + Emotion Focused Disengagement

Figure 22. COPE Inventory Shortened Version (Pg. 1 of 3)

| | |
|---|--|
| <p style="text-align: center;">Coping Strategies Inventory Short Form 32</p> <p>The purpose of this questionnaire is to find out the kinds of situations that trouble people in their day-to-day lives and how people deal with them.</p> <p>Take a few moments and think about an event or situation that has been very stressful for you during the last month. By stressful we mean a situation that was troubling you, either because it made you feel bad or because it took effort to deal with it. It might have been with your family, with school, with your job, or with your friends.</p> <p>In the space below, please describe this stressful event. Please describe what happened and include details such as the place, who was involved, what made it important to you, and what you did. The situation could be one that is going on right now or one that has already happened. Don't worry about making it into an essay. Just put down the things that come to you. Continue writing on the back if necessary.</p> | <p>Once again, take a few minutes to think about <u>your chosen event</u>. As you read through the following items please answer them based on how you handled your event.</p> <p>Please read each item below and determine the extent to which you used it in handling your chosen event. Please do not mark on this inventory. Please use the provided answer sheet in the following manner:</p> <p>a. Not at all b. A little c. Somewhat d. Much e. Very much</p> <ol style="list-style-type: none"> 1. I worked on solving the problems in the situation. 2. I looked for the silver lining, so to speak; I tried to look on the bright side of things. 3. I let out my feelings to reduce the stress. 4. I found somebody who was a good listener. 5. I went along as if nothing were happening. 6. I hoped a miracle would happen. 7. I realized that I was personally responsible for my difficulties and really lectured myself 8. I spent more time alone. 9. I made a plan of action and followed it. 10. I looked at things in a different light and tried to make the best of what was available. 11. I let my feelings out somehow. 12. I talked to someone about how I was feeling. 13. I tried to forget the whole thing. 14. I wished that the situation would go away or somehow be over with. 15. I blamed myself. 16. I avoided my family and friends. 17. I tackled the problem head on. 18. I asked myself what was really important, and discovered that things weren't so bad after all. 19. I let my emotions out. 20. I talked to someone that I was very close to. 21. I didn't let it get to me; I refused to think about it too much. 22. I wished that the situation had never started. 23. I criticized myself for what happened. 24. I avoided being with people. |
|---|--|

Figure 23. COPE Inventory Shortened Version (Pg. 2 of 3)

25. I knew what had to be done, so I doubled my efforts and tried harder to make things work.
26. I convinced myself that things aren't quite as bad as they seem.
27. I got in touch with my feelings and just let them go.
28. I asked a friend or relative I respect for advice.
29. I avoided thinking or doing anything about the situation.
30. I hoped that if I waited long enough, things would turn out OK.
31. Since what happened was my fault I really chewed myself out.
32. I spent some time by myself.

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Figure 24. COPE Inventory Shortened Version (Pg. 3 of 3)

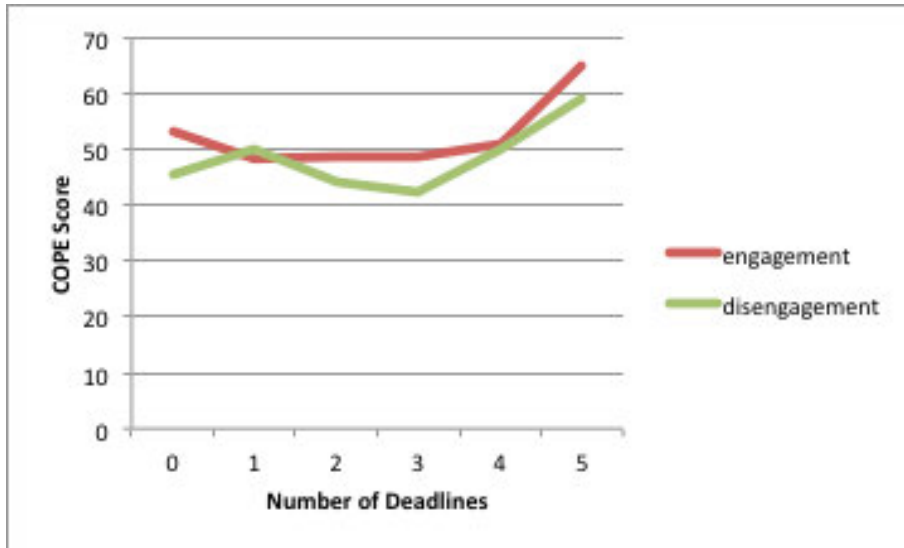


Figure 25. COPE Score and number of deadlines

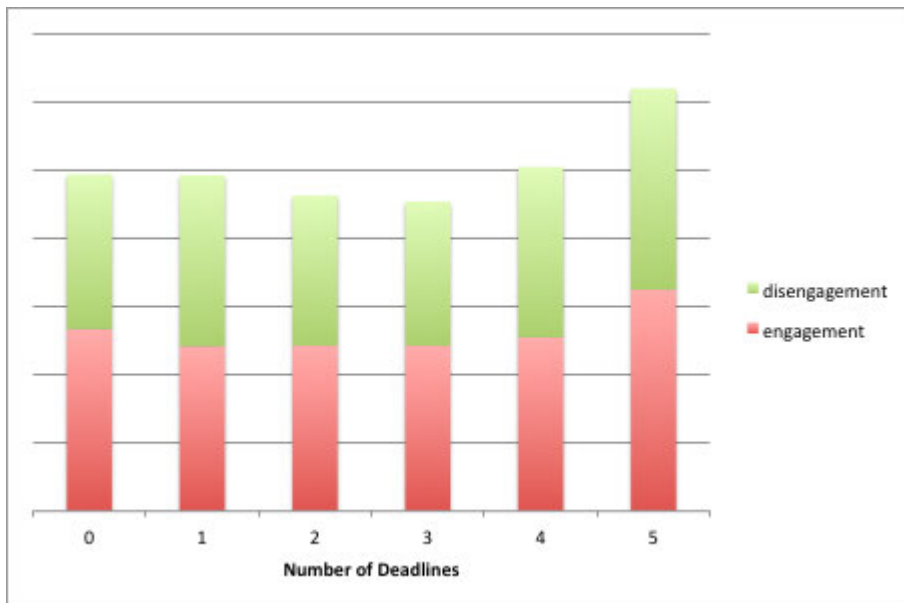


Figure 26. Trajectory of engagement vs. disengagement

| Number of Deadlines | Engagement Score Mean | Disengagement Score Mean |
|---------------------|-----------------------|--------------------------|
| 0 | 53.4 | 45.4 |
| 1 | 48.4 | 50.2 |
| 2 | 48.6 | 44 |
| 3 | 48.5 | 42.3 |
| 4 | 51 | 50 |
| 5 | 65 | 59 |

Figure 27. Deadlines and Mean Scores of Engagement and Disengagement

Conversations with the stakeholders - not much information was provided. However, incentives were provided which did help in recruiting participants.