The Two Sides to Social Distancing: Mental Effects of Social Isolation On Young Adults

Rukmini Bose

PSYCH 100 Research Methods

UC Santa Cruz

Professor: Dr. Bonam

Teaching Assistant: Tiffany Lockett

June 7, 2020

Abstract

An individual's well-being is predicated on social interaction and personal relationships. Due to the COVID-19 pandemic, society was compelled to self isolate and not to leave houses unless for essential reasons. The intentions for this study are to present a correlation through analyzing the relationship between depression levels and the limitation of in-person socializing. Questions were formulated to gauge various factors relating to depression such as mood swings, physical complaints, and sleeping patterns, on a 7 point Likert scale. Participants were then asked to answer a series of questions through an online survey. Some were asked to answer based on their thoughts and feelings from a couple months ago, while others were asked about how they felt in the present day. Ultimately, a statistical hypothesis testing shows a strong correlation between increased social distancing and decreases in mental well being.

Keywords: depression, social isolation, distancing, exclusion, anxiety

The Two Sides to Social Distancing: Mental Effects of Social Isolation On Young Adults

Being an active member of society involves going to school and work, running errands, meeting with friends, and doing activities together. Due to the recent events as of the year 2020, the COVID-19 virus has resulted in a global pandemic that has pushed the world into the safety of their own homes. Social distancing and quarantine has become the new normal in order to prevent the spread of this virus. Such a sudden change in people's daily lives and having to isolate one's self from society can be hard on one's health– not only physically, but also mentally.

To begin this study, we looked for evidence in past psychological journals that social isolation is a strong component leading to depression. For example, one article states how physical and social interaction within a neighborhood can affect an individual's health. The article also explains how different environmental factors can affect physical health while social support affects mental health. The results of this journal state how social support was the most important social environmental factor for mental health (Gidlow, 2010). This begins to formulate our hypothesis of how one's social life has a direct impact on one's mental state.

In addition, another scholarly article by Mark Leary discusses our focal psychological theory that constructs the foundation of our research hypothesis, known as the social exclusion attribution theory. Leary proposes that the main source of anxiety and depression is due to the exclusion of social groups. He elaborates on the basic components of this theory, along with examining the relationship between social exclusion, loneliness, and depression (Leary, 1990). The attribution theory tries to interpret individual events and connect them to human thoughts and behavior. There is a strong desire for humans to be able to understand events in their lives by connecting them to human nature or factors of the outside environment. Specifically, there are two basic types of attributions made by humans– internal and external attribution. Internal attribution, otherwise known as dispositional attribution, refers to personal factors that result in one's ultimate actions (Cornwell, 2009). External, or situational attribution, refers to interpreting a situation caused in one's environment as the reason for one's behavior. The results of this article give us reason to believe that because being a member of a social group increases likelihood of survival, it is in human nature to crave social interaction and can have negative effects on one's own body, such as depression or anxiety, when feeling excluded (Fishman, 2017). In addition, one last study investigates the relationship between social exclusion and depression. The study consisted of 553 college students who filled out questionnaires in regard to social exclusion and depression (Li, 2018). It showed that isolation from one's society was significantly and positively associated with depression.

With the several past psychological journals that had similar findings on one's level of depression based on his/her social life, we build our hypothesis that there is an increase in depression amongst teenagers and young adults when the social distancing rule is in place. In short, the external attribution, or outside factor of the looming presence of a virus, or being isolated from friends, family, and having a sudden shift in one's lifestyle can cause young adults to show signs of depression and have anxiety over typical parts of their lives. In this study, we will be examining how the sudden implementation of social distancing and quarantine can affect one's mental health– more specifically, clinical depression. We will conduct this study by asking a group of diverse young adults and teenagers to put themselves in the time period of either a

couple of months ago or in the present day, and to answer a series of questions that will measure our focal psychological construct of clinical depression.

One additional goal of the presented research is to explore the internal reliability and convergent validity of depression. To do so, every question that is presented is similar to one from a previous published measure of depression. Each question is presented on a Likert, point-based scale with seven choices, ranging from "Strongly Disagree" to "Strongly Agree". A score that is measuring depression will be computed as the standard. From there, we will be able to compare participants' results and observe any changes in each group based on their current state of mind that point them to having more signs of depression.

Method

Design and Procedure

Each subject was asked to participate in a survey that would be performed over the Internet. Informed consent was obtained before data collection, with the option of withdrawing from the study at any time. Additionally, the confidentiality of their answers was assured. During the survey, the participants were randomly assigned to one of two time periods and were asked to answer the questions accordingly. The conceptual independent variable of this study was simply the enforcement of quarantine. The operational independent variable was the manipulation of the questionnaire prompts given to the participants. Those who were randomly assigned to the control group received a prompt, instructing them to report based on their state of mind from three to four months ago, or before the imposition of quarantine. For the full list of questions asked to the control group, please refer to Appendix A. On the other hand, those randomly assigned to the treatment group received a prompt instructing them to report based on their thoughts and feelings in the present day, or while quarantine restrictions were still in place. For the full list of questions asked to the treatment group, please refer to Appendix B. At the end of the study, all the participants were asked to complete a brief follow-up survey including demographic questions and a study debriefing where some questions asked for the participant's own opinions and input.

Materials

Each participant answered the survey questions on either a laptop, phone, or electronic device that had access to the Internet. Please refer to Appendix A and B for the full list of questions that the participants were asked.

Social Isolation Depressive Measure. Eighteen questions similar to the published measure were created on a 7-point Likert scale, where participants answered about how strongly they agreed or disagreed with each statement. These questions evaluated participants' general state of mind, mood swings, physical complaints, sleep patterns, anxiety, and social media use. Points were assigned on a scale, 1 point being attributed to those experiencing the weakest signs of depression, and 7 points being given to those experiencing the strongest symptoms of depression. At the end, an average of each participant's responses was calculated. To see examples of the questions, please refer to Appendix A and Appendix B.

Costello-Comrey Depression and Anxiety Scales. Each of the 18 survey questions from the Social Isolation Depressive Measure was created while referring to the published measure written by Costello and Comrey, named "*Scales For Measuring Depression and Anxiety*". This published measure was created using two pre-existing measures– the "MMPI Depression Scale" and "Taylor's Manifest Anxiety Scale". Due to the few items these measures used to diagnose depression and anxiety, Costello and Comrey designed two new measures that took into account more psychological behaviors and could be tested over a wider age range. Overall, the published measure's reliability values proved it to be a definitive way to diagnose people with a depressive mood. In the results portion of the published measure, "split-half reliability of the depression scale based on the data from the males and females combined was .90", or that there will be consistent results with this measure (Costello, 1967). These published measure questions were presented on a 7-point Likert scale and administered to 553 people with various occupations. Questions took note of mood swings, one's general state of mind, physical complaints, sleep patterns, anxiety, and social media use. To see a full list of questions from the published measure, please refer to Appendix C.

Manipulation Checks. To ensure the effectiveness of the survey, two questions were asked at the end. Participants were asked to recall what time period they were told to put themselves in. An additional conceptual manipulation check question was presented, asking the participants if they think their answers would be different if they were presented with a different time period.

Participants

A convenience sample of 50 people was invited to participate in the study, ages ranging from 15 to 54 years of age, with an average of 21.6 years old. 46% were women and 54% were men. In addition, 16% of the participants were of European descent, 46% of Asian descent, 8% of Latino descent, and 30% were either unknown or other.

Results

The results show this study to have high reliability and validity. In addition, the results are statistically significant, indicating that they did not occur by chance. In other words, there is evidence that self-isolation has a positive correlation to the depressive levels in an individual.

Social Isolation Depressive Measure: Reliability and Validity

By the end of the study, Cronbach's Alpha (α) was calculated to be 0.893. This meant that the results had high internal reliability and would produce similar results under consistent conditions. As seen in Table 1, each question within the Social Isolation Depressive Measure had alpha values between 0.8 and 0.9, consistently proving to have high reliability. In addition, the r-value, representing convergent validity, was calculated to be 0.66. In other words, our results had a strong positive correlation and that there was an increase in depressive symptoms when the treatment, or the imposition of quarantine, was added.

Experimental Effects

An independent sample t-test was conducted where the p-value was calculated to be less 0.05, meaning the results of the study were statistically significant and were likely to not have occurred by chance. In addition, the means of the control and treatment group indicate there being an increase in depressive symptoms in those who were placed in social isolation. Please refer to Figure 1 for more information.

Discussion

With a new depression scale created to test the effects of social isolation on one's mental health, results show that there is indeed a significant increase in depressive symptoms while one is separated from the rest of society. In addition, our results go hand in hand with the social

exclusion external attribution theory. In this particular situation, the outside factor in a person's environment that may lead to changes in his/her behavior is the enforcement of quarantine, leading to social isolation. Looking at the individual means for each question in Table 1, many people found themselves taking more time to do regular tasks and having more anxiety in their lives since quarantine has started. Therefore, once people are detached from the rest of society, they may experience symptoms of anxiety or find less motivation to complete their tasks.

Next, we will evaluate construct, content, face, and criterion validity for the Social Isolation Depressive Measure. The focal psychological construct intended to be measured was depression. Using a past published measure that has good construct validity, these questions created for the new measure ensure that depression is being studied by observing its main symptoms. Thus, this new measure also has strong face validity, as it is effective in measuring depression. To evaluate the measure's criterion validity, we can compare the results of the published measure that measure depression to it. Both the published measure and created measure had high reliability as well as strong correlation. Lastly, both measures have p-values of less than 0.05, indicating the results to be statistically significant (Costello, 1967). Comparing the results of the published and created measure in Table 1 and Table 2, we observe that they are very similar; thus the Social Isolation Depressive Measure also has high criterion validity.

Since this research study was conducted in the middle of a global pandemic, we have reason to believe that this measure may be more effective once the pandemic ends. Quarantine restrictions have not been lifted yet, so we can only predict that depression levels will worsen amongst people. Conducting this experiment once the pandemic is over and observing aspects of people's daily lives before, during, and after quarantine restrictions have been lifted would provide more promising results. In addition, the future is unknown but with new technologies being constantly being developed everyday, we can only predict that there may be more effective ways to diagnose depression. For example, developed brain scans or blood tests may be able to more accurately depict depression amongst patients. If that were the case, questionnaires may become a premature and less accurate option for testing for depressive symptoms. Thus, the means of acquiring our measure may change. However, for now, this is the best option for going about measuring depression. Lastly, we come to the conclusion that the COVID-19 global pandemic, which is forcing people to isolate themselves from the rest of society, may have negative effects on the mental health of young adults and teenagers.

- Cornwell, E. Y., & Waite, L. J. (2009). Social disconnectedness, perceived isolation, and health among older adults. *Journal of health and social behavior*, *50*(1), 31–48. https://doi.org/10.1177/002214650905000103
- Costello, C.G. & Comrey, Andrew (1967) Scales for measuring depression and anxiety. *The Journal of Psychology*, 66:2, 303-313, DOI: 10.1080/00223980.1967.10544910
- Fishman, E. J., & Husman, J. (2017). Extending attribution theory: Considering students' perceived control of the attribution process. *Journal of Educational Psychology*, 109(4), 559–573. https://doi.org/10.1037/edu0000158
- Gidlow, C., Cochrane, T., Davey, R. C., Smith, G., & Fairburn, J. (2010, May 24). Relative

importance of physical and social aspects of perceived neighbourhood environment for self-reported health. Retrieved April 15, 2020, from https://www.sciencedirect.com/science/article/pii/S0091743510001817?via=ihub

- Leary, M. R. (1990). Responses to Social Exclusion: Social Anxiety, Jealously,
 Loneliness, Depression, and Low Self Esteem. *Journal of Social and Clinical Psychology*, 9(2). Retrieved April 15, 2020, from https://guilfordjournals.com/ doi/abs
 /10.1521/jscp.1990.9.2.221
- Li, Sen., Zhao, Fengqing., Yu, Guoliang. (Oct 23, 2018) Social exclusion and depression among college students: A moderated mediation model of psychological capital and implicit

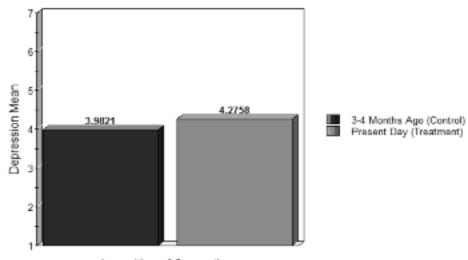
theories, Retrieved April 15, 2020, from https://link-springer-com.oca.ucsc.edu/article/ 10.1007/s12144-018-0036-z

Item	Question	Mean	Standard Deviation	Internal Reliability (a)
1	Throughout the day, I feel:	4.3462	1.41261	.880
2	I tend not to be moody throughout the day	3.6538	1.41261	.842
3	How satisfied do you feel after scrolling through social media?	4.4423	1.36358	.845
4	I am having trouble falling asleep.	4.1538	2.00377	.840
5	I do not sleep an average of 6 hours of sleep.	3.8269	2.07432	.859
6	I wake up during the night.	3.8462	2.17278	.849
7	I do not have energy to get through the day.	3.5192	1.67438	.845
8	I do not feel motivated to attend online school and lectures every week.	4.5962	1.96299	.850
9	The tasks I perform take more time than usual.	4.7115	1.71883	.842
10	I have noticed an increase in anxiety or worry in my social life.	4.2115	1.90290	.840
11	I have noticed an increase in anxiety or worry in my academic life.	4.5769	2.14518	.829
12	I have noticed an increase in anxiety or worry in my work life.	4.3269	1.93747	.840
13	I have noticed an increase in anxiety or worry in my mental health.	4.5000	1.99509	.834
14	I have noticed an increase in anxiety or worry in my physical health.	4.1923	2.01016	.840
15	I have noticed headaches and/or migraines.	3.7500	2.05679	.840
16	I have noticed muscle aches.	3.2500	1.85636	.848
17	I have noticed digestive problems.	2.8654	1.92026	.839

Scales For Measuring Depression Measure Statistics							
Item	Question	Mean	Standard Deviation	Internal Reliability (a)			
1	I tire quickly	1.5833	.49822	.768			
2	I believe I am no more nervous than others	1.3958	.49420	.804			
3	I do not work under a great deal of tension	1.3750	.48925	.797			
4	I frequently notice my hand shakes when I try do something	1.8333	.37662	.777			
5	I worry quite a bit over possible misfortunes	1.4167	.49822	.744			
6	I sweat very easily even on cool days	1.6667	.47639	.789			
7	Sometimes when embarrassed, I break out in a sweat	1.4792	.50485	.758			
8	I hardly ever notice my heart pounding, and I am not out of breath	1.4583	.50353	.784			
9	I have had periods in which I lost sleep over worry	1.5833	.49822	.747			
10	I am easily embarrassed	1.4792	.50485	.761			
11	I am more sensitive than most other people	1.4583	.50353	.741			
12	I frequently find myself worrying about something	1.3542	.48332	.746			
13	I feel anxiety about something or someone almost all of the time	1.5208	.50485	.740			
14	It makes me nervous to have to wait	1.5417	.50353	.763			
15	I do not get so excited that I find it hard to sleep	1.5625	.50133	.804			
16	I have sometimes felt that difficulties piling up so high I couldn't get over them	1.5208	.50485	.745			
17	I admit I have felt worried beyond reason over small things	1.2708	.44909	.750			
18	I certainly feel useless at times	1.4167	.49822	.752			
19	I am certainly lacking in self-confidence	1.4792	.50485	.748			
20	I sometimes feel that I am about to fall to pieces	1.5625	.50133	.751			

Table 2Scales For Measuring Depression Measure Statistics





Depression Means

Imposition of Quarantine

Appendix A

Social Isolation Depressive Measure Condition 1 (Control)

Recall back 3-4 months ago and answer the following questions to the best of your abilities.

- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- (1-Very Unhappy, 2-Unhappy, 3-Somewhat Unhappy, 4-Neither Happy Nor Unhappy, 5-Somewhat Happy, 6-Happy, 7-Very Happy)
- 3. (1-Extremely satisfied, 2-Moderately satisfied, 3-Slightly satisfied, 4-Neither satisfied nor dissatisfied, 5-Slightly dissatisfied, 6-Moderately dissatisfied, 7-Extremely dissatisfied)
- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- 10. (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- 11. (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- 13. (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- 14. (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- 16. (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)

- 17. (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- 1. I tend to be moody throughout the day.
- 2. ****** Throughout the day, I feel:
- 3. How satisfied do you feel after scrolling through social media?
- 4. I am having trouble falling asleep.
- 5. ** I sleep an average of 6 hours every night.
- 6. I wake up during the night.
- 7. ****** I have energy to get through the day.
- 8. ****** I feel motivated to attend online lectures and complete my school work.
- 9. The tasks I perform take more time than usual.
- 10. I have noticed an increase in anxiety or worry in my social life.
- 11. I have noticed an increase in anxiety or worry in my academic life.
- 12. I have noticed an increase in anxiety or worry in my work life.
- 13. I have noticed an increase in anxiety or worry in my mental health.
- 14. I have noticed an increase in anxiety or worry in my physical health.
- 15. I have noticed headaches and/or migraines.
- 16. I have noticed an increase in muscle aches.
- 17. I have noticed digestive problems.
- 18. I feel more exhausted.

****** = question was recoded

Appendix B Social Isolation Depressive Measure Condition 2 (Treatment)

Answer the following questions to the best of your abilities from how you felt over the past three weeks.

- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- (1-Very Unhappy, 2-Unhappy, 3-Somewhat Unhappy, 4-Neither Happy Nor Unhappy, 5-Somewhat Happy, 6-Happy, 7-Very Happy
- (1-Extremely satisfied, 2-Moderately satisfied, 3-Slightly satisfied, 4-Neither satisfied nor dissatisfied, 5-Slightly dissatisfied, 6-Moderately dissatisfied, 7-Extremely dissatisfied)
- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- 9. (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- 11. (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- 12. (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- 13. (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- 14. (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- 15. (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)

- 16. (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- 17. (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- (1-Strongly Disagree, 2-Disagree, 3-Somewhat Agree, 4-Neither Agree Nor Disagree, 5-Somewhat Agree, 6-Agree, 7-Strongly agree)
- 1. I tend to be moody throughout the day.
- 2. ****** Throughout the day, I feel:
- 3. How satisfied do you feel after scrolling through social media?
- 4. I am having trouble falling asleep.
- 5. ** I sleep an average of 6 hours every night.
- 6. I wake up during the night.
- 7. ****** I have energy to get through the day.
- 8. ** I feel motivated to attend online lectures and complete my school work.
- 9. The tasks I perform take more time than usual.
- 10. I have noticed an increase in anxiety or worry in my social life.
- 11. I have noticed an increase in anxiety or worry in my academic life.
- 12. I have noticed an increase in anxiety or worry in my work life.
- 13. I have noticed an increase in anxiety or worry in my mental health.
- 14. I have noticed an increase in anxiety or worry in my physical health.
- 15. I have noticed headaches and/or migraines.
- 16. I have noticed an increase in muscle aches.
- 17. I have noticed digestive problems.
- 18. I feel more exhausted.

****** = question was recoded

Appendix C Scales For Measuring Depression Measure

Answer the following questions to the best of your abilities from how you felt over the past three weeks. The statements below inquire about your behavior and emotions. Consider each statement carefully. Then indicate whether the statements are generally true or false for you.

- 1. (1-True, 2-False)
- 2. (1-True, 2-False)
- 3. (1-True, 2-False)
- 4. (1-True, 2-False)
- 5. (1-True, 2-False)
- 6. (1-True, 2-False)
- 7. (1-True, 2-False)
- 8. (1-True, 2-False)
- 9. (1-True, 2-False)
- 10. (1-True, 2-False)
- 11. (1-True, 2-False)
- 12. (1-True, 2-False)
- 13. (1-True, 2-False)
- 14. (1-True, 2-False)
- 15. (1-True, 2-False)
- 16. (1-True, 2-False)
- 17. (1-True, 2-False)
- 18. (1-True, 2-False)
- 19. (1-True, 2-False)
- 20. (1-True, 2-False)
- 1. ** I do not tire quickly
- 2. I believe I am no more nervous than others
- 3. ** I work under a great deal of tension
- 4. I frequently notice my hand shakes when I try do something
- 5. I worry quite a bit over possible misfortunes
- 6. I sweat very easily even on cool days
- 7. Sometimes when embarrassed, I break out in a sweat
- 8. ** I hardly ever notice my heart pounding, and I am seldom short of breath
- 9. I have had periods in which I lost sleep over worry

- 10. I am easily embarrassed
- 11. I am more sensitive than most other people
- 12. I frequently find myself worrying about something
- 13. I feel anxiety about something or someone almost all of the time
- 14. It makes me nervous to have to wait
- 15. ** Sometimes I become so excited I find it hard to get to sleep
- 16. I have sometimes felt that difficulties piling up so high I couldn't get over them
- 17. I admit I have felt worried beyond reason over small things
- 18. I certainly feel useless at times
- 19. I am certainly lacking in self-confidence
- 20. I sometimes feel that I am about to go to pieces

****** = question was recoded