Personality and Mental Health Treatment:
Preferences Towards Psychological Therapy Type Based on
Client Personality

Keely Huntley Bieniak

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Approved: ___________________________ Date: __________
Thesis Director Signature
Dr. Mary Jean Lynch

Approved: ___________________________ Date: __________
Second Reader Signature
Dr. William Muck
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Keely Bieniak

North Central College
Abstract

Race, gender, and experience with mental health treatment have an impact on an individual's likelihood of seeking treatment and the outcome of treatment. However, minimal research has attempted to determine if a relationship exists between patient personality and opinions towards various types of mental health care. The present work examines whether extraverts and introverts demonstrate a preference for involved or reflective therapy; involved focuses on introspection, while reflective is activity-based. Participants each read vignettes about individuals with anxiety and individuals with depression and selected one of the two treatment options for each individual. Using the Eysenck Personality Inventory, participants scoring in the lowest third were classified as introverts, the highest scoring third as extraverts, and the middle third as ambiverts. A mixed analysis of variance suggests that there is no significant impact of personality on treatment choice. Data do suggest that there is an influence of disorder presented on treatment choice.
Personality and Mental Health Treatment: Preferences Towards Psychological Therapy Type Based on Client Personality

Psychotherapy is a practice that relies on research to determine therapeutic methods that best help clients (Wampold, 2010). There is a lack of research, however, about how an individual's personality fits into this process. Current estimates state that one of every five Americans suffer from a mental illness during their lifespan (National Alliance of Mental Illness, 2019). Even more alarming is that for individuals aged 15 to 34, suicide is the second most common cause of death (Centers for Disease Control and Prevention, 2019). The economic impact of serious psychological disorders is over $190 billion annually, due to a loss of income (Centers for Disease Control and Prevention, 2019). Finding ways to make therapy more beneficial improves the quality of life of millions of individuals living with mental health disorders. It is clear just how important successful therapy is both on an individual and national scale.

Two of the most pervasive psychological disorders are anxiety and depression (National Collaborating Center for Mental Health, 2011). The most common diagnosis for an individual to receive in the United States is that of an anxiety disorder (Anxiety and Depression Association of America, 2019). While the diagnostic category of anxiety includes a wide variety of diagnoses, the most common symptom is persistent and overwhelming intense fear and worry over events, items, or activities that typically would not provoke such emotions (American Psychiatric Association, 2013). Furthermore, anxiety is often comorbid with depression, which is the number one cause of disability globally (Anxiety and Depression Association of America, 2018). Depression is characterized as a persistent negative affect that can manifest in several ways, such
as lethargy, discontinuation of enjoyable activities, and/or decreased motivation to complete

While these two disorders differ greatly, similar treatments have shown to be effective.
Biologically, the neurotransmitters involved in both anxiety and depression can be regulated with
the same medication. Serotonin, for example, is a neurotransmitter found to be involved in both
anxiety and depression (Fakhoury, 2016). Consequently, selective serotonin reuptake inhibitors
(SSRIs) are the most common pharmacological treatments for individuals with either of these
disorders (Mayo Clinic, 2019). Nonpharmacological treatments also work similarly for the two
disorders. Effectiveness of these treatments varies depending on the client, but long-term
psychotherapy has been found to produce significantly better outcomes for individuals with
anxiety or depression than other treatments or no treatment at all (de Maat, de Jonghe,
Schoevers, & Dekker, 2009).

**Factors that influence therapeutic outcomes**

There are many factors that impact the outcomes of psychotherapy. If clients think
therapy is going to be effective, it is more likely to be effective; if a client thinks that a treatment
will not be effective, then it is more likely to not be effective (Cohen, Beard, & Björgvinsson,
2015; Busseri & Tyler, 2004; Pedersen & Paves, 2014). Thus, for individuals to have a
successful therapeutic process, they must believe that the therapy in which they are engaging is
going to be beneficial. Other factors that impact the outcomes of psychotherapy include race,
cultural background, and client-practitioner match (Cai & Robst, 2016; Cohen et al., 2015;
Choudhry, Mani, Ming, & Khan, 2016). One study found that for young adults who were part of
minority populations, the therapeutic process was influenced by how well the clinician seemed to
understand the culture of the patient (Pope-Davis et al., 2002). When clients felt that the clinician
was more competent about their culture, they felt more positively about treatment and were more open to the process of therapy. Similar research has examined race and ethnicity as two different but interrelated components in psychotherapy (Meyer & Zane, 2013). Participants in the study were all engaged in mental health treatment and were asked to complete questionnaires regarding their race and ethnicity as well as questionnaires about their mental health treatment. Analysis found individuals who are minorities, either racial or ethnic minority, view practitioner competence of their minority as being a key component of treatment. If clients felt their practitioner was not competent in their racial or ethnic background, they felt the treatment process was less beneficial.

Research has shown that, while other factors play an important role, one of the key predictors of a positive therapeutic outcome is the therapeutic alliance (Cain, 2010). This factor is the relationship that a client shares with the therapy provider. A professional relationship with trust and honesty is the leading determinant of successful psychotherapy. Thus, if clients know that they can be honest and open with their therapist without being judged, that they can trust the practitioner, and that they have clear boundaries in their relationship, then therapy is more likely to be effective and successful long term. With all of these factors impacting therapy, there is still a potentially important component missing: personality type. Personality may predispose clients to certain treatment types, which should result in more confidence in and compliance with therapy.

In 2005, Dr. Jefferson Singer was one of the first to suggest that while psychotherapy has grown, the field still needs to work on figuring out how to best treat the whole person, which he stresses includes an individual’s personality (2005). Personality traits have been studied in a variety of different manners within the field of mental health, but none of them have not directly
analyzed the influence of personality on how individuals perceive mental health treatment. One study suggested that certain psychological disorders tend to be paired with specific personality traits, such as mood disorders and low extraversion (Malouff, Thorsteinsson, & Schutte, 2005). An additional study found that personality type has an impact on how individuals respond to mental health treatment (Dermody, Quilty, & Bagby, 2016). In this study prior to beginning treatment for depression, participants completed the Revised NEO Personality Inventory which measured conscientiousness, neuroticism, openness, agreeableness, and extraversion. Three weeks and sixteen weeks into the study, participants and therapist rated one another on interpersonal behaviors. At the conclusion of the study, it was determined that those participants who were more extraverted and conscientious, and less neurotic, had more positive outcomes from treatment. This work suggests that personality plays a role in mental health treatment; however, the study did not look at the treatment preferences, only how personality impacted the treatment process. It is crucial to separate the process and the outcomes of psychotherapy; a therapy that is based in best practice is not guaranteed to obtain good results if the client is unmotivated or unwilling to engage in the process (Botella, & Cultura, 2015). As a result, finding that personality plays a role in how personality impacts the treatment process does not mean that personality will impact treatment outcomes. Similar work has also found that a variety of personality traits influence mental health (Mu, Luo, Nickel, & Roberts, 2016). Over a course of four years subject data on personality (measured by the MIDUS Big Five Adjectival Scale), overall mental health, anxiety levels, depression levels, loneliness, life satisfaction, hopelessness, and purpose in life were measured. Analysis determined that certain personality traits, such as high neuroticism, yielded worse mental health outcomes, such as high anxiety. The authors also suggest that, while certain personality traits may have a more direct impact on mental health, the
stronger determinant of health is the entirety of an individual's traits and how these traits interact. For example, simply having low levels of extraversion may correlate with higher anxiety, but if a person has low extraversion, high neuroticism, and high hopelessness, then it is much more likely that s/he will be anxious. While these results suggest that a relationship between a variety of individual traits, including anxiety, impact the mental health of an individual, they do not suggest whether personality impacts preferences for treatment (Mu, Luo, Nickel, & Roberts, 2016).

All of these findings imply that personality plays an important role in the process of psychotherapy. What psychology has learned from this research is incredibly valuable, yet these studies do not explore specifically how individual personality shapes predispositions about psychotherapy and how this predisposition may influence therapy as a whole. Without research on the effect of personality on treatment preference, there are few ways to apply this knowledge to make the process of mental health treatment more effective and beneficial.

**Personality**

**Extraversion in personality theory**

The field of psychology has devoted significant amounts of research to classifying, describing, and understanding personality. While the methods of classification vary between theories, one common agreement is that traits are the basic components of personality (Allport, 1937). Since its infancy, personality theory has accepted that traits exist, but argued greatly over what those traits specifically are and how they can be measured. Allport, who was one of the first to challenge the traditional European methodology of studying the whole person as one unit, argued that each person is a unique combination of thousands of personality characteristics (McAdams, 1997). Around the same time that Allport published his humanistic theory, others
published personality theories from a psychodynamic perspective (McAdams, 1997). Murray, for example, detailed personality as being based in 20 psychogenic needs such as achievement or affiliation.

When the Guilford-Zimmerman Temperament Survey was published in 1949, high sociability, what is now called extraversion, became a topic of study for researchers (Watson & Clark, 1997). The survey measured key temperament factors such as general activity, objectivity, and friendliness, as well as sociability which remains the key component of modern extraversion. Following the release of this survey, a number of researchers attempted to modify the theory utilized by Guilford and Zimmerman to create a more accurate assessment of personality. The work of Hans Eysenck, for example was influenced by the findings of Guilford as he created his own personality inventory that included extraversion, neuroticism, and later psychoticism (Watson & Clark, 1997). The Sixteen Personality Factor Questionnaire, developed by Cattell and published in 1957, suggested that the theories created by Guilford and Eysenck were too broad, and instead believed that there were at least 16 key personality characteristics that needed to be measured (Watson & Clark, 1997). Extraverts, in the model created by Cattell, were considered to be individuals who were more dominant and socially involved than introverts.

While personality researchers have produced various definitions of extraversion, they all share the consistent conclusion that extraverts are more social and seek socialization more than the average person (Watson & Clark, 1997).

**Eysenck’s extraversion**

Organizing personality traits into broad categories, such as extraversion, allows researchers to compare large groups of similar individuals. While numerous personality theories include extraversion as a trait, the theory created by Hans Eysenck is one of the most frequently
cited (Eysenck, 1964). Extraversion, for Eysenck, is high sociability and impulsivity (Eysenck & Eysenck, 1963). Research has been able to analyze differences in brain activation in connection to introversion and extraversion (Eysenck, 1963). Extraverts tend to have low base levels of arousal, meaning they need more stimulation to become overwhelmed or excited. As a result, they search for more social stimulation. Introverts instead have high base levels of arousal, making it easier for them to become overwhelmed in social situations.

Eysenck created a questionnaire to measure these traits, the Eysenck Personality Inventory (EPI). It is important to mention that over the years, Eysenck has added another core personality factor called psychoticism and created a new questionnaire: the Eysenck Personality Questionnaire (EPQ). Measured similarly to neuroticism and extraversion, psychoticism is defined as an individual who is cold, impersonal, egocentric, and tough-minded (Eysenck, 1973).

While new questionnaires have been created, the EPI is still considered to be an effective method to measure subject extraversion levels. Scoring of extraversion and neuroticism on the EPI is on a continuum, so that an individual is not labeled introvert or extravert but instead receives a score on the scale with the two personality types at opposite ends of the spectrum. Eysenck’s work on personality has been utilized to understand people in a wide variety of areas, including intelligence, performance, and mental health (Eysenck, 1990; Eysenck, 1963).

**Present research**

The present work attempts to discover whether personality has an impact on the way an individual views mental health treatment. Specifically, this research hypothesizes that personality impacts the types of therapy (reflective or involved) an individual views as most beneficial. Personality (introversion-extraversion) was identified using the Eysenck Personality Inventory (EPI), and therapy type was divided into two categories: reflective or involved. These treatment
categories were developed using the existing framework of emotion-focused and problem-focused psychotherapy. Emotion-focused therapy tends to focus on coping with emotional responses clients have with problem-focused therapy is centered around solving the issues creating distress (McQueeny, Stanton, & Sigmon, 1997). Both emotion-focused and problem-focused treatments have been found to be effective.

Reflective therapy is treatment that requires minimal activities, uses primarily talk therapy, or uses medication alone. Involved treatment involves activities, such as exposure, group sessions, and simulations in the therapeutic setting. It is important to note that no specific therapeutic approach, such as Cognitive Behavioral Therapy or Dialectical Behavioral Therapy, fits cleanly into either of these categories. As a result, therapies described in the study’s materials were developed with a multimodal approach, meaning they were not based simply in one therapeutic approach but rather as a combination of approaches, all based in best practice principles. In order to analyze therapeutic preference, a series of vignettes were created, each describing an individual with a mental health disorder and two treatment options from which the participant could select. Half of the vignettes were individuals with depression or depressive symptoms and the other half were individuals with anxiety or anxiety symptoms.

It was predicted that participants who were more extraverted would be more likely to prefer involved therapy and that introverts would be more likely to prefer reflective therapy. Ambiverts, those with scores between the two extreme personality groups, were expected to have preferences between the introverts and extraverts. Furthermore, there were no expected differences in preferences for those clients with anxiety and those with depression. It was also hypothesized that personality would not interact with presented mental illness. It was predicted that participants who were introverts would select more reflective treatments for vignettes
regardless of mental illness presented and that extraverts would prefer more involved treatments for the vignettes regardless of mental illness presented.

This work is long overdue in a field that attempts to treat the individual. Until now, minimal research has been conducted to better understand client preferences in order to effectively match them to treatment.

**Methods**

**Subjects**

Participants were 130 undergraduate students from North Central College and recruited through an online sign-up system. Participants were enrolled in an introductory psychology course at the time of the study and received class credit for participating. All but one of the participants were between the ages of 18 and 23, with one being over 24 years of age. No screening for mental illness was completed prior to participation. Of the 130 participants 84 identified as women and 45 as men. The majority of participants identified as Caucasian (n=82). Less than half of the participants were psychology majors or minors.

**Materials**

**Demographic questionnaire.** Subjects were asked to complete a demographic survey consisting of 10 multiple choice questions. Basic demographic information was collected about age, race, and gender. Other questions focused on schooling and information about the mental health history of participants (See Appendix A).

**Perceptions of treatment: Mental health vignettes.** A set of 12 vignettes were created (See Appendix B). Six of the vignettes presented a college student suffering from depression and six presented an individual with anxiety. Descriptions of the disorders were based on descriptions in the fifth Diagnostic Statistical Manual for Mental Disorders (American
Psychiatric Association, 2013). An equal number of male and female names were used for vignette characters.

Involved and reflective answer choices were counterbalanced across vignettes. Two orders of the vignettes were given: one where anxiety cases were presented first followed by depression and the other where depression cases were presented first followed by anxiety.

**Personality inventory.** The Eysenck Personality Inventory (EPI; Eysenck & Eysenck, 1963) was utilized to measure introversion/extraversion levels (See Appendix C). Other measures on the EPI included neuroticism and a lie scale. While neuroticism data were collected, they were not analyzed in the present research.

**Personal treatment preference questionnaire.** A personal treatment preference questionnaire was given to determine which treatment participants would prefer if they were suffering from a mental health disorder (See Appendix D). The purpose of the questionnaire was to determine if the treatment choices in the vignettes, which focused on an unknown individual, would be similar to the treatment choices participants would select for themselves. This questionnaire consisted of two questions. One asked which treatment the participants would prefer if they were suffering from depression and the other which treatment they would prefer if they were suffering from anxiety. Similar to the vignettes, the options were described without any naming any specific treatments but were characterized as being either involved or reflective.

**Procedure**

Participants were seated in a research space in groups of up to eight individuals. During informed consent, individuals were reminded that participation was voluntary and that they could leave at any time. Additionally, they were alerted to the fact that some of the content regarding
mental health could have been mildly emotionally distressing. In the event that participants became distressed, they were free to go without penalty.

After consent had been acquired, participants completed the following questionnaires one at a time with a paper labeled “STOP” in between them: demographic questionnaire, vignettes, EPI, and post questionnaire. The EPI was given following the completion of the mental health vignettes to conceal the personality variable for as long as possible. Following the collection of data, participants were debriefed, as well as given additional information about mental health resources including the suicide hotline, a local mental health facility, and the college wellness center contact information.

Results

**Personality Inventory**

EPI scores ranged from 6 to 22 ($M=14.88$, $SD=3.80$). The upper third of these scores ranged from 17 to 22 and were labeled extraverts ($M=18.706$, $SD=1.446$, $n=50$), the middle third ranged from 14 to 16 and were labeled ambiverts ($M=14.818$, $SD=0.846$, $n=32$), and the lower third ranged from 6 to 13 and were labeled introverts ($M=10.696$, $SD=2.021$, $n=46$).

**College Student Mental Health Questionnaire**

Each choice was scored as either a one if the participant selected the involved treatment or a two if the participant selected a reflective treatment. Overall scores on the College Student Mental Health Questionnaire when responses to all questions were added together ranged from 12 to 24. Higher scores represented a preference for more reflective treatment and lower scores represented a preference for involved treatment. Actual total scores ranged from 15 to 23 ($M=19.667$, $SD=1.905$). Scores for the anxiety specific vignettes had a potential range of 6 to 12, and reported scores ranged from 6 to 12 ($M=8.791$, $SD=1.309$). Possible scores on the
depression specific vignettes ranged from 6 to 12, and respondents’ actual scores ranged from 7 to 12 ($M=9.411$, $SD=1.080$).

**Mixed ANOVA**

A mixed ANOVA found no significant effect of personality on treatment choice ($F(1,125) = 0.399, p = 0.672$). There was no significant interaction of personality and condition on treatment choice ($F(2, 125) = 0.835, p = 0.436$). There was a significant effect of illness (depression or anxiety) on treatment choice ($F(1, 125) = 15.657, p < 0.0001$). When the individual in a vignette presented depression symptoms, participants were more likely to choose a reflective treatment and when an individual presented with anxiety symptoms the treatment choice was more likely to be involved (Figure 1).

**Personal treatment preference**

A chi-square test of independence found no significant relationship between personality and treatment when participants were asked which treatment they would prefer for themselves. In general, participants chose treatment that were reflective ($\chi^2 (4) = 5.322, p=0.256$). Extraverts showed a slight preference for more involved treatment ($M=1.031$, $SD=0.870$) (Figure 2), but the difference was not significant.

**Discussion**

**Current Findings**

It was hypothesized that personality would have an effect on the type of treatment chosen, regardless of disorder. Specifically, it was expected that introverts would prefer treatment options that were more reflective, and extraverts would prefer treatment that was more involved. The findings are not consistent with the predictions. The hypothesis that personality affects chosen treatment was not supported.
There was no significant impact of personality on which treatments participants believed would be more beneficial for the cases presented in the vignettes. Specifically, extraverts and introverts do not have different preferences for mental health treatment as a consequence of personality differences.

Interestingly, there was a significant effect of mental illness on treatment choices. When a vignette presented an individual with anxiety, participants were more likely to choose an involved treatment. Reflective treatments, on the contrary, were preferred when an individual presented with depressive symptoms. These findings contradict initial predictions that illness type would not have an influence on treatment choice. Such results are likely a consequence of a few different factors, including minimal background information on treatment and a base level knowledge of mental health disorders.

The general population typically has a low, base-level knowledge of mental illness. As these participants were enrolled in an introductory psychology course, they had received varying levels of theoretical introductions at the time of participation. However, the introductory course focuses very little on psychological disorders, giving them no more background into mental health than the average population. Survey research of over 2,000 adults across the United States found that, on average, individuals rated themselves as being slightly informed on mental health issues (American Addiction Centers, 2019). This survey finds further that over 80% of participants believe that others are either slightly or very uninformed on the matter. These data tell researchers that the public, at best, feels they know some information about psychology but not much. Therefore, the participants in the present research may have felt they were trying to make decisions that were beyond their level of knowledge. Consequently, they may have been making decisions based on what little knowledge they had of mental health treatment, such as
examples from media and anecdotes from friends, to make their decision rather than selecting which experience they would have preferred.

Furthermore, the lack of background about the topic may have resulted in participants thinking there was truly a right and wrong answer or one answer was better than the other. While going through anxiety questions, for example, they may have wanted to pick the same kind of answer consistently because they felt that was the right choice, whether it was what they would prefer.

The Personal Treatment Preference Questionnaire demonstrated that across personality types there is no significant difference in the type of treatment individuals would prefer. Furthermore, there was no effect of disorder type on personal preference. These findings contradict the findings of the vignettes, in which people preferred treatment in relation to the type of disorder presented. This contradiction suggests a few different points about psychotherapy preferences. First, people perceive treatment for anxiety and depression differently for themselves than they do for others. Second, labeling treatment overtly, as done in the Personal Treatment Preference Questionnaire, may impact the interpretation of treatment. Third, personality does not appear to be a direct factor for treatment choice regardless of whether treatment is for the self or for someone else.

Future Studies

The findings of this study suggest that future research needs to be conducted on how individuals perceive various mental illnesses and how those perceptions impact attitudes towards treatment. Correlational research has found that there is a clear relationship between social norms, such as stigma, and opinions of mental health treatment and mental illness (Nobiling & Maykrantz, 2017). In communities where mental illness is stigmatized, individuals are less likely
to be receptive to the concept of psychological care. While this research does support that predispositions towards mental health impact individual opinions of treatment, it does not explain how these opinions develop.

In order to determine if the lack of effect of personality on treatment choice occurs independently of the effect of mental illness, it will be important to conduct studies where only one disorder is presented across the vignettes. This kind of study will determine if there truly is no impact of personality or if the impact of personality is mitigated by attitudes towards different mental illness. Furthermore, utilizing different populations, such as older adults, minorities, or those diagnosed with mental health disorders, would provide a more comprehensive summary of whether personality impacts choices as well as how individuals perceive various mental health disorders.

A limitation of the current study was that the format of the vignette questionnaire and the personal treatment preference questionnaire were different and could not be directly compared. The vignettes did not label a specific mental illness, but the personal preference questionnaire did include a label. Future studies should include vignette questions that label a specific mental illness to allow us to determine what role the label of a disorder has on treatment choice. This kind of study would also allow for comparison between the vignette responses and the personal treatment responses to better compare how participants would choose treatments for themselves versus treatments for others.

Psychotherapy has become an evidence-based practice that aims to assist those who want to improve their mental health. Research has found that different factors, such as client-practitioner match (Choudhry, Mani, Ming, & Khan, 2016), race (Cai & Robst, 2016), and the therapeutic alliance (Cain, 2010) all have impacts on the process of therapy. Knowing such
factors can help practitioners provide more effective therapy for their clients. Research must continue to investigate factors that impact psychotherapy to continue to improve the process for those seeking a higher quality of life.
References


Figures

Figure 1. Across all personality groups, individuals demonstrated a preference for reflective therapy when the vignette presented an individual with depression and a more involved treatment for individuals with anxiety. ($SD =+/-1$)
Figure 2. Across all personality groups, there was no significant difference for which treatment participants would select if they were in need of psychotherapy for anxiety or depression. (SD = +/- 1)
Appendix A

Subject Number:
Date:

1. Sex:
   a. Male
   b. Female
   c. Other

2. Gender identity:
   a. Male
   b. Female
   c. Other

3. Age:
   a. 18-20
   b. 21-23
   c. Older than 24

4. Race (circle what you primarily associate with):
   a. Caucasian
   b. Black
   c. Hispanic/Latino
   d. Asian
   e. Pacific Islander
   f. Other

5. Year in college:
   a. First-year
   b. Sophomore
   c. Junior
   d. Senior
   e. Other

6. Have you ever been formally diagnosed with any mental health conditions including but not limited to: depression, anxiety, phobia, obsessive compulsive disorder, or bipolar disorder (I or II)?
   a. Yes
   b. No
   c. Prefer not to answer

7. Have you ever been involved in any sort of psychological treatment?
   a. Yes
b. No
c. Prefer not to answer

8. Are you currently involved in any sort of psychological treatment?
   a. Yes
   b. No
   c. Prefer not to answer

9. Are you a psychology major or minor?
   a. Yes
   b. No

10. Has anyone you know ever been diagnosed with a psychological disorder?
    a. Yes
    b. No
Instructions: Please read each of the following case studies about a college-aged student suffering from some form of mental distress. For each case, please read the two treatment options and pick which you feel would be best for this individual. There is no right or wrong answer, simply what you believe this person would prefer. Feel free to explain your answer with a comment.

Note: Keep in mind that you are free to withdraw at any time without consequence. If you feel distressed or uncomfortable, you may simply exit the room at any time or stop answering the questions and remain in the room until this section of the study is complete.

1. Taylor, a junior in college, has been feeling worried all the time and generally overwhelmed. Taylor struggles to sleep at night and is always exhausted. While she has always been outgoing, recently anxiety has resulted in withdrawing from friends and family.
   Circle which of the following treatments you think would be best for Taylor.
   
   1. A support group run by her college for students with anxiety where she can speak with others in similar positions and learn how they have overcome their struggles while developing a strong support network.
   2. Meeting with a therapist to reflect on and discuss her worries in an attempt to better understand what is causing her to feel this way.

   Please explain why you chose this treatment in one or two sentences.

2. Reese recently began senior year. When he begins to think about life after graduation, he experiences extreme fear. He begins to hyperventilate, his heart races, and he feels completely helpless. He is now afraid to go to class because he is worried one will happen in public.

   Circle which of the following treatments you think would be best for Reese:
   
   1. Attending therapy to work on mindfulness practices to attempt to change his negative thoughts.
   2. Working with a therapist to practice confronting his anxiety triggers, such as working on job applications or going to class.

   Please explain why you chose this treatment in one or two sentences.
3. Sawyer is a 21 year old student who is graduating in a year. He has been going through periods where he feels completely overwhelmed about his future. Everyone tells him it is normal to feel overwhelmed, but Sawyer feels that he is experiencing more worry than his peers. At times, he struggles to sleep because of his racing thoughts.

Circle which of the following treatments you think would be best for Sawyer:

1. Attending group and individual treatment with a therapist weekly to practice coping mechanisms and to hear from other individuals suffering from similar fears.
2. Working with a therapist to think about the underlying causes for his feeling overwhelmed in order to solve the root of the problem.

Please explain why you chose this treatment in one or two sentences

4. Quinn has become incredibly anxious about getting A’s on all of his school work. If he gets less than a 95% on an assignment, he experiences a panic attack. He feels that, if he does not do exceptionally well on his work, he will not be able to succeed in life.

Circle which of the following treatments you think would be best for Quinn:

1. Attending therapy that focuses on relaxation techniques such as mindfulness and progressive muscle relaxation to try and improve his ability to control his emotional response to grades.
2. Meeting with a therapist to learn new ways to cope via practice scenarios as well as helping him find resources to manage his anxiety

Please explain why you chose this treatment in one or two sentences

5. Charlie has always considered herself to be a worrier. Yet, now that she is a sophomore in college, this worry has grown. Charlie now feels extreme worry about everything from missing her alarm to global events completely out of her control. This worry results in panic attacks, insomnia, and issues with concentration.

Circle which of the following treatments you think would be best for Charlie:

1. Practicing specific coping strategies with a therapist in his office as well as in some of the locations that she tends to feel the most anxious in order to help her feel prepared when the anxiety hits and to expose her to her triggers to make them less worrisome.
2. Working with a psychiatrist to find medication that can help combat her anxiety as well as learning new coping strategies such as deep breathing or meditation. Please explain why you chose this treatment in one or two sentences.

6. Rose cannot get her thoughts to stop racing. Her mind is moving from thought to thought so quickly that she cannot keep up. This leaves her feeling overwhelmed and out of control. She has yet to figure out a way to get her thoughts under control. She is beginning to feel scared about feeling this way so often.

Circle which of the following treatments you think would be best for Rose:
   1. Meeting with a therapist who has her learn new coping strategies in the office and then try them in real life situations in the presence of her therapist in order to build healthier coping skills.
   2. Working with an online support group that is controlled by her school where she can message with others who feel the same way and openly share her experiences anonymously.
Please explain why you chose this treatment in one or two sentences.

7. James is about to complete his senior year of college. He has recently begun struggling with insomnia and agitation. He feels irritable all day and has no desire to spend time with the people he cares about. His roommates will go days without seeing or hearing from him.

Circle which of the following treatments you think would be best for Charlie:
   1. Going to a therapist who will help him regain enjoyment in life by slowly re-engaging in positive activities such as spending time with friends or family.
   2. Engage in therapy that focuses on introspection to gain a better idea of where these feelings stem from in order to unveil the causes of his struggles.
Please explain why you chose this treatment in one or two sentences.

8. Elliot is a computer science major at a large university. He is about to complete his sophomore year. He has been struggling to get up in the mornings and be productive throughout the day. He is so exhausted and drained that getting up is sometimes impossible. He is struggling to keep up with his work and his grades are hardly passing.

Circle which of the following treatments you think would be best for Elliot:
1. Going to a psychiatrist to receive medication and some therapy aimed at understanding his emotional state.
2. Meet with a group of similar individuals under the guidance of a therapist to help him gain social support and find new coping mechanisms.

Please explain why you chose this treatment in one or two sentences

9. Morgan has struggled with depression since her sophomore year of high school, which has been well controlled since her junior year. Now, a freshman in college, Morgan is noticing some of her symptoms returning. She struggles to get out of bed in the morning, prefers to eat meals alone in her room, and has not done laundry in a month.

Circle which of the following treatments you think would be best for Morgan:
1. Becoming involved in group therapy for college students with depression that is led by a counselor and therapist to build social relationships, discover healthier coping skills, and begin to reimmerse herself in her community.
2. Enter into treatment where she meets with a therapist once a week to talk about how she is feeling, what she is struggling with, and why.

Please explain why you chose this treatment in one or two sentences

10. Peyton, a first-year in college, has been experiencing a lack of interest in things that used to make her quite happy, such as painting and spending time with her family. She feels as if this disinterest is something she will not be able to overcome. In the past two weeks she has only socialized with her family once, despite living in the same home.

Circle which of the following treatments you think would be best for Peyton:
1. Enter into family therapy in order to help her cope with her struggles while also working on improving her relationships with her family, hopefully increasing the strength of her support system.
2. Entering into individual therapy where she speaks with a practitioner about what she is experiencing and why she thinks she is feeling that way, with the hope of finding out what is the root of her struggles.

Please explain why you chose this treatment in one or two sentences
11. Bailey has dealt with depression for most of his life. Recently, he has been going through periods where he feels unusually driven to complete all of his work. This drive is extreme and often leads him to days with minimal sleep or food. His friends tell him that when he experiences one of these periods he is irritable and distracted.

Circle which of the following treatments you think would be best for Bailey:

1. Go back onto medication that has helped in the past to decrease his symptoms and help him regain control over his life without having to commit too much time to treatment.
2. Get back into contact with a therapist who helped him in the past by running through scenarios, practicing coping mechanisms, and teaching him new ways to cope.

Please explain why you chose this treatment in one or two sentences.

12. Cameron has been feeling extremely sad and hopeless over the past few months. He has been losing weight, struggling to sleep, and experiencing mood swings throughout the day for no apparent reasons. His school work and personal life are starting to suffer as a result.

Circle which of the following treatments you think would be best for Cameron:

1. Checking into an outpatient program at a local mental health clinic where he will engage in daily therapy, either individual or group dependent on the day, aimed at finding healthy ways to manage his emotions.
2. Starting individual therapy a few times a week where he and a therapist will reflect on how he is feeling, coping, and what is causing him to feel this way.

Please explain why you chose this treatment in one or two sentences.
Mental Health Vignettes B

Instructions: Please read each of the following case studies about a college-aged student suffering from some form of mental distress. For each case, please read the two treatment options and pick which you feel would be best for this individual. There is no right or wrong answer, simply what you believe this person would prefer. Feel free to explain your answer with a comment.

Note: Keep in mind that you are free to withdraw at any time without consequence. If you feel distressed or uncomfortable, you may simply exit the room at any time or stop answering the questions and remain in the room until this section of the study is complete.

1. James is about to complete his senior year of college. He has recently begun struggling with insomnia and agitation. He feels irritable all day and has no desire to spend time with the people he cares about. His roommates will go days without seeing or hearing from him.

Circle which of the following treatments you think would be best for Charlie:

1. Going to a therapist who will help him regain enjoyment in life by slowly re-engaging in positive activities such as spending time with friends or family.
2. Engage in therapy that focuses on introspection to gain a better idea of where these feelings stem from in order to unveil the causes of his struggles.

Please explain why you chose this treatment in one or two sentences

2. Elliot is a computer science major at a large university. He is about to complete his sophomore year. He has been struggling to get up in the mornings and be productive throughout the day. He is so exhausted and drained that getting up is sometimes impossible. He is struggling to keep up with his work and his grades are hardly passing.

Circle which of the following treatments you think would be best for Elliot:

3. Going to a psychiatrist to receive medication and some therapy aimed at understanding his emotional state.
4. Meet with a group of similar individuals under the guidance of a therapist to help him gain social support and find new coping mechanisms.

Please explain why you chose this treatment in one or two sentences
3. Morgan has struggled with depression since her sophomore year of high school, which has been well controlled since her junior year. Now, a freshman in college, Morgan is noticing some of her symptoms returning. She struggles to get out of bed in the morning, prefers to eat meals alone in her room, and has not done laundry in a month.

Circle which of the following treatments you think would be best for Morgan:

3. Becoming involved in group therapy for college students with depression that is led by a counselor and therapist to build social relationships, discover healthier coping skills, and begin to reimmerse herself in her community.

4. Enter into treatment where she meets with a therapist once a week to talk about how she is feeling, what she is struggling with, and why.

Please explain why you chose this treatment in one or two sentences.

4. Peyton, a first-year in college, has been experiencing a lack of interest in things that used to make her quite happy, such as painting and spending time with her family. She feels as if this disinterest is something she will not be able to overcome. In the past two weeks she has only socialized with her family once, despite living in the same home.

Circle which of the following treatments you think would be best for Peyton:

3. Enter into family therapy in order to help her cope with her struggles while also working on improving her relationships with her family, hopefully increasing the strength of her support system.

4. Entering into individual therapy where she speaks with a practitioner about what she is experiencing and why she thinks she is feeling that way, with the hope of finding out what is the root of her struggles.

Please explain why you chose this treatment in one or two sentences.

5. Bailey has dealt with depression for most of his life. Recently, he has been going through periods where he feels unusually driven to complete all of his work. This drive is extreme and often leads him to days with minimal sleep or food. His friends tell him that when he experiences one of these periods he is irritable and distracted.

Circle which of the following treatments you think would be best for Bailey:
3. Go back onto medication that has helped in the past to decrease his symptoms and help him regain control over his life without having to commit too much time to treatment.

4. Get back into contact with a therapist who helped him in the past by running through scenarios, practicing coping mechanisms, and teaching him new ways to cope.

Please explain why you chose this treatment in one or two sentences

6. Cameron has been feeling extremely sad and hopeless over the past few months. He has been losing weight, struggling to sleep, and experiencing mood swings throughout the day for no apparent reasons. His school work and personal life are starting to suffer as a result.

Circle which of the following treatments you think would be best for Cameron:

3. Checking into an outpatient program at a local mental health clinic where he will engage in daily therapy, either individual or group dependent on the day, aimed at finding healthy ways to manage his emotions.

4. Starting individual therapy a few times a week where he and a therapist will reflect on how he is feeling, coping, and what is causing him to feel this way.

Please explain why you chose this treatment in one or two sentences

7. Taylor, a junior in college, has been feeling worried all the time and generally overwhelmed. Taylor struggles to sleep at night and is always exhausted. While she has always been outgoing, recently anxiety has resulted in withdrawing from friends and family.

Circle which of the following treatments you think would be best for Taylor.

3. A support group run by her college for students with anxiety where she can speak with others in similar positions and learn how they have overcome their struggles while developing a strong support network.

4. Meeting with a therapist to reflect on and discuss her worries in an attempt to better understand what is causing her to feel this way.

Please explain why you chose this treatment in one or two sentences

8. Reese recently began senior year. When he begins to think about life after graduation, he experiences extreme fear. He begins to hyperventilate, his heart races, and he feels completely helpless. He is now afraid to go to class because he is worried one will happen in public.
Circle which of the following treatments you think would be best for Reese:

3. Attending therapy to work on mindfulness practices to attempt to change his negative thoughts.
4. Working with a therapist to practice confronting his anxiety triggers, such as working on job applications or going to class.

Please explain why you chose this treatment in one or two sentences

9. Sawyer is a 21 year old student who is graduating in a year. He has been going through periods where he feels completely overwhelmed about his future. Everyone tells him it is normal to feel overwhelmed, but Sawyer feels that he is experiencing more worry than his peers. At times, he struggles to sleep because of his racing thoughts.

Circle which of the following treatments you think would be best for Sawyer:

3. Attending group and individual treatment with a therapist weekly to practice coping mechanisms and to hear from other individuals suffering from similar fears.
4. Working with a therapist to think about the underlying causes for his feeling overwhelmed in order to solve the root of the problem.

Please explain why you chose this treatment in one or two sentences

10. Quinn has become incredibly anxious about getting A's on all of his school work. If he gets less than a 95% on an assignment, he experiences a panic attack. He feels that, if he does not do exceptionally well on his work, he will not be able to succeed in life.

Circle which of the following treatments you think would be best for Quinn:

3. Attending therapy that focuses on relaxation techniques such as mindfulness and progressive muscle relaxation to try and improve his ability to control his emotional response to grades.
4. Meeting with a therapist to learn new ways to cope via practice scenarios as well as helping him find resources to manage his anxiety.

Please explain why you chose this treatment in one or two sentences

11. Charlie has always considered herself to be a worrier. Yet, now that she is a sophomore in college, this worry has grown. Charlie now feels extreme worry about
everything from missing her alarm to global events completely out of her control. This worry results in panic attacks, insomnia, and issues with concentration.

Circle which of the following treatments you think would be best for Charlie:

3. Practicing specific coping strategies with a therapist in his office as well as in some of the locations that she tends to feel the most anxious in order to help her feel prepared when the anxiety hits and to expose her to her triggers to make them less worrisome.

4. Working with a psychiatrist to find medication that can help combat her anxiety as well as learning new coping strategies such as deep breathing or meditation.

Please explain why you chose this treatment in one or two sentences

12. Rose cannot get her thoughts to stop racing. Her mind is moving from thought to thought so quickly that she cannot keep up. This leaves her feeling overwhelmed and out of control. She has yet to figure out a way to get her thoughts under control. She is beginning to feel scared about feeling this way so often.

Circle which of the following treatments you think would be best for Rose:

1. Meeting with a therapist who has her learn new coping strategies in the office and then try them in real life situations in the presence of her therapist in order to build healthier coping skills.

2. Working with an online support group that is controlled by her school where she can message with others who feel the same way and openly share her experiences anonymously.

Please explain why you chose this treatment in one or two sentences
### Appendix C

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you like plenty of excitement and bustle around you?</td>
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<tr>
<td>2. Have you often got a restless feeling that you want something but do not know what?</td>
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<tr>
<td>3. Do you nearly always have a “ready answer” when people talk to you?</td>
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<td>4. Do you sometimes feel happy, sometimes sad, without any real reason?</td>
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<td>5. Do you usually stay in the background at parties and “get-togethers”?</td>
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<td>6. As a child did you always do as you were told immediately and without grumbling?</td>
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<td>7. Do you sometimes sulk?</td>
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<td>8. When you are drawn into a quarrel, do you prefer “to have it out” to being silent hoping things will blow over?</td>
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<td>9. Are you moody?</td>
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<td>10. Do you like mixing with people?</td>
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<td>11. Have you often lost sleep over your worries?</td>
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<td>12. Do you sometimes get cross?</td>
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<td>13. Would you call yourself happy go lucky?</td>
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<td>14. Do you often make up your mind too late?</td>
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<td>15. Do you like working alone?</td>
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<td>16. Have you often felt listless and tired for no good reason?</td>
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<td>17. Are you rather lively?</td>
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<td>18. Do you sometimes laugh at a dirty joke?</td>
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<td>19. Do you often feel “fed-up”?</td>
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<td>20. Do you feel uncomfortable in anything but everyday clothes?</td>
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<td>21. Does your mind often wander when you are trying to attend closely to something?</td>
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<td>22. Can you put your thoughts into words quickly?</td>
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<td>23. Are you often lost in thought?</td>
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<td>24. Are you completely free of prejudices of any kind?</td>
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<td>25. Do you like practical jokes?</td>
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<td>26. Do you often think of your past?</td>
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<td>27. Do you very much like good food?</td>
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<td>28. When you get annoyed do you need someone friendly to talk to about it?</td>
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<td>29. Do you mind selling things or asking people for money for some good cause?</td>
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<tr>
<td>30. Do you sometimes boast a little?</td>
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**PLEASE CHECK TO SEE THAT YOU HAVE ANSWERED ALL THE QUESTIONS.**

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Appendix D

Personal Treatment Preference Questionnaire

1. If you were experiencing anxiety which of these would appeal more to you?
   a. A treatment that involves you speaking one on one with a therapist to discuss what you are experiencing, working overtime to learn coping strategies.
   b. A treatment that involves activities such as going out and facing the things that cause you anxiety or speaking with others who have similar feelings.

2. If you were experiencing depression which of these would appeal more to you?
   a. A treatment that involves you speaking one on one with a therapist to discuss what you are experiencing, working overtime to learn coping strategies.
   b. A treatment that involves activities such as going out and dealing with the symptoms of your depression or speaking with others who have similar feelings.
Appendix E

North Central College
Institutional Review Board
Application for Research with Human Participants

Instructions: Please email a copy of your application to the Chair of the North Central College Institutional Review Board.

1. **PROTOCOL SUBMISSION:**

<table>
<thead>
<tr>
<th>New Protocol</th>
<th>☐ Renewal (Previously approved Protocol #)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐ With no significant changes</td>
</tr>
<tr>
<td></td>
<td>x Significant changes have been made to section #s (6-13):</td>
</tr>
</tbody>
</table>

2. **PROJECT TITLE:** Provide a descriptive title of your proposed research project.

Personality and Mental Health Treatment: Preferences Towards Psychological Therapy Type Based on Client Personality

3. **PRINCIPAL INVESTIGATOR(S):** Note: A faculty or staff member must be specified as the Principal Investigator.

<table>
<thead>
<tr>
<th>NAME</th>
<th>TELEPHONE</th>
<th>EMAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary Jean Lynch</td>
<td>630-637-5363</td>
<td><a href="mailto:mlynch@noctrl.edu">mlynch@noctrl.edu</a></td>
</tr>
</tbody>
</table>

4. **ACADEMIC DEPARTMENT:**

Psychology & Neuroscience and College Scholars Honors Program
5. **DURATION AND LOCATION OF RESEARCH:** Provide the projected starting and ending dates for data collection, and explain where data collection will take place. If research is being conducted at an off-campus location, please attach documentation (if appropriate) that the research has been approved by the off-campus facility. Will any aspect of your project be conducted outside of the United States? If yes, please consult the **IRB Review of International Research Policy** for further guidance.

Data will begin being collected in September 2018 and be finished by January 2019. The entire project will conclude no later than May 2019. Data will be gathered at North Central College.

6. **DESCRIPTION OF RESEARCH:** Describe the goals of the proposed research and the methodology that will be used to fulfill those goals. Please remember to describe your research in a way that can be easily understood by a general audience.

Psychological therapy is a broad field composed of many subfields, each with unique treatment methods and beliefs. Certain treatments are more effective for certain disorders, races, and some individual characteristics yet it is unclear as to whether introverts and extraverts respond differently to these treatments. This research is based on the idea that if an individual believes that a given treatment will be helpful, the likelihood of treatment being successful increases. Here I hypothesize that personality type impacts the preference towards different therapy types. Therapy types are separated into two main groups: involved or reflective. Involved therapy is more interactive, often group based, and problem-focused. Reflective therapy is more based in personal reflection, typically individual based, and emotion-focused. I predict that we will see a pattern of introverts showing preference for reflective therapies and extraverts showing preference for involved therapies. This relationship would be grounds for clinicians to match client personality to the type of therapy more frequently preferred to increase the likelihood of positive outcomes.

This study is based on the subject variable of personality, defined by introversion/extraversion. The dependent variable is the chosen treatment type, either reflective or involved. There are two independent variables, the first being type of illness (anxiety or depression) and the second being the treatment options available for the participant to choose from. First, after completion of informed consent, participants will complete 10 demographic questions. Following this, participants will be given a series of vignettes, eight in total, about individuals experiencing psychological illness. The mental illness present in each vignette will be either depression or anxiety. Participants will see an equal number of vignettes of both illnesses in a random order. Each vignette will ask the participant to then pick between two treatment options, one of which will be the involved type and one will be the reflective type. Each treatment option will be described in one to two sentences and will not refer to the treatment by its formal name. The consequent levels of the research are as follows: Involved-Depression, Involved-Anxiety, Reflective-Depression, Reflective-Anxiety. Participants will also be given the option to write down a sentence or two about why they chose the given treatment. The short response is optional and is aimed to give the subject the ability to explain their motivations. Once this portion is collected, the Eysenck Personality Inventory will be administered in order to classify participants as either introverts or extraverts. The scores collected from all participants will be divided into thirds, with the highest scoring third being the extraverts, and the lowest scoring third being introverts. Lastly, a post-study questionnaire will be administered. This will ask subjects if they were suffering from anxiety and depression which treatment they would prefer. Following completion of these
final questions, participants will be debriefed. This process is expected to take up on 30 minutes of the participant’s time. Approximately 100 participants will be needed for this study. While we cannot control the number of extraverts and introverts who volunteer, there will hopefully be a relatively even ratio of the two.

7. PARTICIPANTS: Describe how your participants will be solicited, how many participants will be needed, what restrictions (if any) there will be on your sample, etc. If participants include populations likely to be vulnerable to coercion or undue influence (such as children, prisoners, mentally disabled persons, or economically or educationally disadvantaged persons), what additional safeguards have been included in the study to protect the rights and welfare of these participants? Are the research subjects in a class? Will participants be provided with any form of compensation? If so, describe.

Participants will be North Central College students in PSY 100. They will be recruited via SONA. Students will be given one credit towards their research participation requirement for this study.

8. CONFIDENTIALITY: Explain how confidentiality of participants’ personal information and/or responses will be maintained. Include a description of how data kept electronically will be kept secure.

Participants will be assigned a number when they first enter the research room. This number will not be on their consent forms but will be placed at the top of all other forms that they complete. Hardcopy data will be kept in a research room that is guarded by swipe access. Data will not be stored with any identifying information. Electronic data will be saved on a secured google drive and will only be analyzed on computers that have protection against viruses and malware.

9. RISKS AND BENEFITS: Provide an account of all potential risks to participants. Note how participants will be informed of these risks, and what steps will be taken to minimize and deal with these risks. If there are any anticipated benefits to participants, describe these as well.
There is a risk of short-term emotional distress for participants who struggle with mental health issues of their own when reading through the vignettes that discuss individuals experiencing psychological conditions. During the informed consent process, this risk will be made clear to subjects, as well as their freedom to leave at any time. The researcher will also ensure that if a participant appears to become distressed during the research they will be reminded of their freedom to leave.

There are a great number of benefits to be gained from this work. Psychological therapy can change an individual’s life for the better as well as save lives. In order for this therapy to be effective, the patients have to feel that the therapy is going to be effective and worthwhile. Understanding how personality characteristics impact these perceptions can improve therapeutic outcomes by improving patient-therapy matching. The participants in this study will benefit not only from the class credit they will receive, but also from the educational impact that participating in studies can have. These students will better understand how psychological research is conducted and what it feels like to be a participant. There is even the likelihood that they may think of related research of their own or be motivated to participate in other work as a subject or a researcher.

10. INFORMED CONSENT: Explain how informed consent will be gained from participants and documented. Attach a copy of your informed consent form and other appropriate supportive documents, including any "script" read to participants describing their rights in the study. If full informed consent is not obtained from participants, explain the rationale for not obtaining full informed consent.

When participants first enter the room, they will be given a complete informed consent form to read and sign. Key points will be verbally explained to participants and marked in bold for emphasis on the form so that participants can easily follow along. Subjects will be reminded that they are free to leave at any time. See attached form: Consent

11. DEBRIEFING: Explain how participants will be debriefed (where appropriate). If your study will include a written debriefing form (or a debriefing “script” read to participants), please attach that form/information to your application.

Following completion of questionnaires, students will be handed a debriefing form and the content of the form will be explained to them. See attached form: Debriefing

12. RESEARCH TEAM INFORMATION: Will students or non-principal investigators be a part of the research team? If yes, what likely roles will they play and how will they be trained to carry out research safely and ethically? All student researchers should complete the required CITI training. Please list the names of any student researchers currently working on the project.
Keely Bieniak: Lead Researcher, psychology major, neuroscience minor, college scholars honors program
Training: PSY 255, CITI Training
Mary Jean Lynch: Project advisor, psychology professor and department chair

13. DISCLOSURE: Please disclose any sources of funding for this project and any potential conflicts of interest. For further guidance, please consult Financial Relationships and Interests in Research Involving Human Subjects: Guidance for Human Subject Protection. If no conflicts of interest exist, please state this.

None

14. As the principal investigator conducting the research contained on this form, I certify the following:

a. All research complies with federal regulations, North Central College policies, and ethical principles within my discipline

b. All faculty and student researchers, including research assistants, involved in this project have undergone the required CITI training; and have been trained by the principal investigator in how to ethically and properly carry out the research procedures utilized for this project; please submit CITI training completion report for the PI with the application

c. The study design is methodologically and ethically sound, in accordance with federal regulations, North Central College policies, and the standards of my discipline

d. I will maintain appropriate oversight of tasks that have been delegated to members of the research team

e. I will be available to answer questions (or if necessary appointing another qualified person to be available)

f. In the event the conditions and/or procedures of the proposed research undergo substantial change, I am required to submit a new approval form to the North Central College Institutional Review Board before further research activity may proceed

g. I will report to the IRB/IACUC any concerns or deviations from the approved protocol that may significantly compromise the welfare of human participants.

Mary Jean Lynch 9-16-2018
Signature of Principal Investigator Date

*If submitted electronically, typing in the name of the primary investigator is considered an electronic signature.
To: Professor Mary Jean Lynch, Principal Investigator

Student Researcher: Keely Bieniak

From: Nicole R. Rivera, Ed.D., Chair, NCC IRB/IACUC

Date: September 26, 2018

RE: Personality and Mental Health Treatment: Preferences Towards Psychological Therapy Type Based on Client Personality

IRB#: 2018-50

The North Central College Institutional Review Board has reviewed your application. This letter officially documents the approval of your study’s protocol. Thank you for your attention to detail and your thoughtful consideration of the ethical issues.

This approval is granted for a period of one year and is set to expire September 26, 2019. Federal regulations require researchers to request a renewal on an annual basis. If your project extends beyond that timeframe, you will be required to resubmit your Application for Research with Human Participants form, which has a checkbox to indicate that you are seeking renewal. The continuation of subject recruitment or data collection without current IRB approval is prohibited.

We wish you the best of luck with your project!

Sincerely,

Nicole R. Rivera, Ed.D.