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# The Effects of Self-Regulation Depletion and Race on the Willingness to Interact with Individuals with Mental Illness

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The Effects of Self-Regulation Depletion and Race on the Willingness to Interact with  
Individuals with Mental Illness

By

Kenocha K. Epperson, Bachelor of Science

Presented to the Faculty of the Graduate School of

Stephen F. Austin State University

In Partial Fulfillment

Of the Requirements

For the Degree of

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May 2020

The Effects of Self-Regulation Depletion and Race on the Willingness to Interact with  
Individuals with Mental Illness

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## **Abstract**

Although the discrimination that Black individuals encounter is unique, it is similar in some ways to the discrimination experienced by individuals with mental illness (Corrigan & Wassel, 2008; Follmer & Jones, 2018; Jackson & Stewart, 2003). Research has found that these kinds of stigma can be overridden (Baumeister et al., 1998), but doing so requires self-regulation, which can be depleted (Gailliot et al., 2007). Because stigma exists against both Black individuals and those with mental illness, and because self-regulation is necessary to override those stigmas, the purpose of this project was to examine the relationships to which Black participants would want to interact with a person with mental illness depending on their level of self-regulation. The results, however, indicated that the race of the target on desire for future interaction was significant. The participants had more desire for future interaction with the Black target than the White target.

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Best,

Kenocha K. Epperson

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## **The Effects of Self-Regulation Depletion and Race on the Willingness to Interact with Individuals with Mental Illness**

Throughout the United States' history, Black individuals have been treated more negatively than other American citizens (Brandt, 1978; Wallis, 2007). Black individuals have encountered discrimination in almost all aspects of their lives, which translates into having less access to health care, jobs, and education (Jackson & Stewart, 2003; Ward, et al., 2009). Although, the discrimination that Black individuals encounter is unique; however, it is similar in some ways to the discrimination experienced by individuals with mental illness (Corrigan & Wassel, 2008; Follmer & Jones, 2018; Jackson & Stewart, 2003).

Individuals who are diagnosed with a mental illness are often negatively stigmatized and discriminated against in employment, housing, and medical care (Lo & Cheng, 2014; Stuber et al., 2014), and are perceived as dangerous and unpredictable (Angermeyer & Matchschinger, 2003). Research has found that these kinds of stigma can be overridden (Baumeister et al., 1998; Muraven et al., 1998), but doing so requires self-regulation, which can be depleted (Gailliot et al., 2007; Gordijn et al., 2004). Because stigma exists against both Black individuals and those with mental illness, and because self-regulation is necessary to override those stigmas, the purpose of this project was to



examine the effect to which Black participants would want to interact with a person with mental illness depending on their level of self-regulation.

### **Perception of and Discrimination Against Black Individuals**

The perception of Black individuals in American society remains largely negative (West et al., 2014). Research has found that Black individuals are commonly described as “violent” (West et al., 2014, p. 81), “lazy” (Katz & Braly, 1933, p. 284), “poor, stupid, and ignorant” (Devine & Elliot, 1995 p. 1144). Katz and Braly (1933) conducted a study at Princeton University in which White participants chose adjectives that described Negroes. The predominant adjectives chosen were “lazy, ignorant, stupid, physically dirty, slovenly, and naïve” (Katz & Braly, 1933, p. 284). At the University of Wisconsin-Madison, Devine and Elliot (1995) replicated Katz and Braly’s (1933) study to determine whether the stereotypes about Black individuals remained consistent 60 years later. The results of this study were consistent with Katz and Braly’s (1933) results, which rated Black individuals as “superstitious, lazy, ignorant, ostentatious, stupid, physically dirty, naïve, slovenly, and unreliable” (Devine & Elliot, 1995, p. 1144). Researchers then looked at how participants’ levels of prejudice predicted the descriptions provided of Black individuals. Low-prejudice participants’ personal beliefs regarding Black individuals were positive, and they rated Black individuals as “sensitive, loyal to family, artistic, honest, intelligent, kind, sportsmanlike, and straightforward” (Devine & Elliot, 1995, p. 1146). Conversely, high-prejudice participants rated Black individuals as “lazy, loud, athletic, rhythmic, poor, hostile, and rude” (Devine & Elliot, 1995, p. 1146).

African American college students have been negatively impacted by stereotypes. African Americans have a 20 to 25 percent higher dropout rate than White Americans, and African Americans' grade point averages are two-thirds of those of White students (Steele, 2003). Steele (2003) found that stereotype threat – the fear of being viewed through a negative lens or confirming the negative stereotypes – affected African American students' academic performance. African American students performed significantly worse than their White counterparts, even though they were matched in abilities.

African Americans' secondary education has also been impacted because of race. Predominantly African American schools receive less funding than schools that are predominantly White (Blanchett, 2006; Blanchett et al., 2005; National Research Council, 2002). Schools that receive higher funding employ certified teachers with more advanced degrees, have better access to technology, and have advanced placement classes, travel-abroad programs, and college preparatory classes (Blanchett, 2006). Not only have African American students been affected by stereotype threat, but their schools have received less funding with which to provide an adequate education to students.

In addition to negative stereotypes affecting academic performance, Black individuals are also discriminated against in the workplace (Jackson & Stewart, 2003). Black women and men are the second-lowest paid race/ethnicity in America, only earning more money than individuals who identify as Hispanic (Hegewisch et al., 2019).

On average, Black women earned \$654 per week compared to \$817 per week earned by White women, and Black men earned an average of \$735 per week compared to \$1,002 per week earned by White men (Hegewisch et al., 2019). There are many explanations for why Black individuals experience higher rates of unemployment. One reason could be because Black individuals receive callbacks for jobs about half as often as White individuals (Bertrand & Mullainathan, 2004).

An explanation for Black individuals receiving fewer callbacks than White individuals is based on differences in names. Many Black individuals have African-sounding names, and research has shown that names that are difficult to pronounce are viewed more negatively than easier-to-pronounce names (Laham et al., 2012). Indeed, those with traditionally African-sounding names received fewer callbacks for jobs than Black individuals with Anglo-sounding names (Bertrand & Mullainathan, 2004). This suggested that Black individuals were discriminated against in various nontraditional ways that affected their working lives and income, many of which extend beyond the color of their skin.

The consequences of negative stereotypes affecting Black individuals' personal lives can be seen in the mass incarceration and police brutality of Black individuals. In 2012, for example, these individuals made up approximately 13.4% of the United States' population (United States Census Bureau, n.d.), but they comprised 40% of the prison/jail population (United States Census Bureau, 2012). The beating of Rodney King in 1991 and the killings of Amadou Diallo and Tamar Rice are examples of police brutality in the

Black community. Black men have been targeted because White individuals tended to perceive Black men as prototypical criminals (Chaney & Robertson, 2013; Eberhardt et al. 2006; Eberhardt et al., 2004). This has led to what is referred to as Negrophobia – a fear of Black individuals that can result in harm of Black individuals based on criminal/racial stereotypes – which has been used to justify the increase of police-related shootings of Black individuals in America (Armour, 1997; Chaney & Robertson, 2013). Stereotypes may affect the perception of Black individuals, especially Black men, because individuals may perceive Black individuals as having a higher criminal characteristic, which in turn affects the personal lives of Black individuals.

As outlined above, racial discrimination exists in nearly every aspect of the lives of Black individuals. Although genetically, Black and White individuals are nearly indistinguishable (Kolbert, n.d.; Worrall, 2017), phenotypically, the appearance of Black and White individuals extends beyond skin color. Black individuals, for example, have naturally Afro-textured (i.e., tightly curled) hair, whereas White individuals tend to have much looser curl patterns. Because of this inherent difference in hair, Black individuals' natural hair is a common source of prejudice and discrimination. Brewer and Tryals (2016) found that Black women with natural hair worn in traditionally Afro-centric styles were less likely to be hired than Black women with hair that had been processed to make it look more like the hair of White women but only when the hiring individual was White. In other words, Afro-centric hairstyles are not considered professional by White employers, and those Black individuals who choose to wear their hair in these styles put

themselves at a competitive disadvantage in the hiring process, especially if the hiring individual is White. This is another example of how Black individuals, especially women, are discriminated against because of their hair, which is often tied to their Blackness.

Discrimination exists within race as well. For example, light-skinned Black individuals are treated more favorably than dark-skinned Black individuals, a phenomenon often referred to as colorism or shadeism (Hunter, 2002). Colorism began during slavery when slaves were separated based on skin color. The lighter-skinned Black individuals did housework, a preferential duty, whereas darker-skinned Black individuals did manual labor, a duty generally described as undesirable (Hunter, 2002). In modern times, research has found that light-skinned Black individuals were more likely to be hired than their dark-skinned counterparts (Hunter, 2002). In women, lighter skin tones are associated more with beauty, which could be used as a privilege in gaining social and economic capital (e.g. social relationships and better jobs; Hunter, 2002). Black women's skin color also predicts their level of education and income, such that Black women with lighter skin tones receive the highest levels of both education and income. Lighter-skin Black women earn \$673-\$2,600 more annually than their darker-skin counterparts (Hunter, 2002). Black individuals, especially those with darker-skin tones, have additional stigma to overcome.

Stereotypes have not only affected within-race dynamics but have also affected how Black children perceive their race. In one study, young Black children were

presented with two identical dolls whose only difference was the race of the doll (Black or White). The young Black child called the White doll “nice” and the Black doll “bad.” When probed, the young Black child said the Black doll was bad because the doll was Black (Spencer, 2010). This experiment was based on a previous experiment examining factors in racial preferences in Negro children (Clark & Clark, 1950). Researchers found the majority of the Negro children, ages 3-7, rejected the color brown and preferred to be White, and by the age of five the Negro child had a sense that to be a Black individual in American society was to be perceived as “inferior” (Blakemore, 2018). The children were experiencing unconscious bias – internalizing stereotypes that have been learned over time and unconsciously influence decisions (Moule, 2009). Stereotypes are learned at a young age, which unconsciously influences the decision-making process. The research supporting unconscious bias towards Black individuals in American society has been consistent since 1950, and this unconscious racial bias has continued to influence decisions.

Compared to White individuals, Black individuals experience higher levels of race-based prejudice and discrimination. Factors contributing to this include physical (e.g., hair texture, skin tone) and cultural (e.g., names, food preferences and flavors, dialects and languages, fashion) differences between Black and White individuals. The consequences of race-based stereotyping and prejudice mean limited opportunities and job attainments for Black individuals, which may further perpetuate stereotypes about Black individuals being lazy. Moreover, these stereotypes may affect the willingness of

others, especially White individuals, to interact with Black individuals. Black individuals, who have additional hindrances (e.g., physical or mental illnesses), are likely to experience even more prejudice and discrimination than Black individuals without such limitations.

### **Mental Illness and Mental Illness-Related Stigma**

Mental illnesses are disturbances in an individual's cognition, emotion regulation, and behavior that affect underlying mental functioning. They are characterized by significant distress, dysfunction, dangerousness, and deviant behavior to self or others (American Psychiatric Association, 2013). In general, laypeople hold very negative attitudes toward individuals with mental illnesses (Stuber et al. 2014) and lack proper knowledge about mental illnesses (Aljedanni, 2018; Cortez, 2016). For instance, individuals with schizophrenia are often associated with violence and criminality. However, individuals with schizophrenia are more likely to be victims rather than perpetrators of violence (Wehring & Carpenter, 2011). Each separate mental illness has its own unique stigma, and mental illness, as a whole, has a separate unique stigma.

Individuals with mental illnesses are often (illegally) discriminated against in the workplace (Follmer & Jones, 2018) and throughout their everyday lives (Corrigan & Wassel, 2008). In the workplace, individuals with mental illnesses are less likely to be considered for promotions and have reduced access to quality jobs (Corrigan et al., 2004; Follmer & Jones, 2018). In addition, many individuals with mental illnesses risk unemployment and, if hired, are at a disadvantage by being given fewer responsibilities

and lower incomes (Krupa et al., 2009; Louvet, 2007; Starcke & Brand, 2012).

Individuals without mental illnesses are less willing to interact with individuals with mental illnesses in their personal and professional lives (Aljedanni, 2018).

Researchers have found that individuals with any type of mental illnesses are perceived as dangerous, volatile, and unpredictable (Angermeyer & Matchschinger, 2003; West et al., 2014; Wong et al., 2018) It is likely, however, that participants in these studies were thinking of people with specific mental illnesses, like schizophrenia, when making these assertions. It is important to note that this is an inaccurate description for most mental disorders. However, it is not uncommon for individuals with schizophrenia to appear more aggressive when compared to individuals without mental illness (American Psychiatric Association, 2013; Wehring & Carpenter, 2011), especially if they have a comorbid diagnosis of substance abuse disorder (Gameiro et al., 2015). The rate of violence committed by an individual with schizophrenia and substance abuse disorder is nearly the same as individuals with substance abuse disorder without psychosis (Gameiro et al., 2015).

A study conducted by Link and colleagues (Link et al., 1999) found that the public perceives individuals with mental illness as dangerous and, because of this, desires social distance from these individuals. Furthermore, the symptoms of some mental illnesses are associated with perceived violence, like cocaine and alcohol dependence, and, in some cases, schizophrenia (Link et al., 1999). Consistent with these findings, Phalen and colleagues (2019) found participants believed that targets who heard negative



voices, ostensibly from God, were likely to have mental illness. In addition, participants who rated the negative voices as a symptom of mental illness perceived the target as dangerous and wanted social distance. The results of this study suggest having mental illness may not only lead to stigma but that having certain symptoms enhance the negative stigma about individuals with mental illness.

The negative stigma surrounding mental illness has been intensified by the media (Corrigan & Watson, 2002). Many have argued the media (e.g., television, movies) depict those with mental illness in ways that exacerbate stereotypes and negative attitudes toward those with mental illnesses (Coverdale et al., 2002; Stout et al., 2004). Wahl and Lefkowitz (1989) studied the influence of the media on attitudes toward mental illness. Participants in the experimental group, who watched a video about a murder being committed by a person with mental illness, had less sympathy for individuals with mental illness and were especially concerned about the potential danger of those with mental illness relative to those in the control group. Furthermore, participants in the experimental group had harsher views of individuals with mental illness relative to those in the control group (Wahl & Lefkowitz, 1989), which suggests that viewers leave television shows and films with inaccurate understandings of the real experiences of individuals with mental illness (Coverdale et al., 2002).

### **Black Individuals' Views About Mental Illness**

Although Black individuals may view mental illness, especially mental illness experiences by Black individuals, as negative (Connor et al., 2010), many (not all)

individuals with mental illness still lead normal, productive lives. Lisa Nicole Carson (actress; bipolar disorder), Kendrick Lamar (rapper; depression), Gabourey Sidibe (actress; depression and bulimia), Wayne Brady (actor, singer, comedian; depression), and Kid Cudi (rapper; depression) are all Black individuals who suffer from mental illness and are able to lead successful public lives (Singh, 2019). Although some individuals with mental illness are able to be successful, others cannot lead successful lives. In fact, most people without mental illness will never achieve the fame or notoriety of the individuals mentioned above.

In general, individuals hold negative attitudes about those who have been diagnosed with a form of mental illness. Although this is true broadly, racial minority groups (e.g., individuals of Mexican origin and Asian Americans) hold uniquely negative views of individuals with mental illness within their race (Anglin et al., 2006; Holley et al., 2019). Specifically, older (60+ years of age) Black individuals who currently or previously had symptoms of depression believed the African American community as a whole was not accepting of individuals with depression (Connor et al., 2010). Moreover, the participants generally viewed mental illness as a weakness and believed mental illness (i.e., depression) was not and should not be discussed (Connor et al., 2010). This is consistent with data from a survey distributed by the National Mental Health Association (NMHA; 1998) that found the majority of African Americans perceived depression as a weakness. Similarly, Asian Americans' views are congruent

with African Americans in perceiving mental illness as shameful and weak (Connor et al., 2010; Holley et al., 2019).

The African American community, especially older African American women, may perceive mental illness (i.e., depression) as negative (Connor et al., 2010), which may affect Black individuals' perception of other Black individuals with mental illness. A negative perception of Black individuals with mental illnesses by Black individuals may affect their willingness to interact with Black individuals with mental illnesses in the future. Of course, this is likely not true for all people or in all situations.

Mental illness and individuals with mental illness are viewed negatively by many Black individuals. Black individuals reported perceiving Black individuals with mental illness as “crazy” and “untrustworthy” (Connor et al., 2010, p. 980). Moreover, Black individuals surveyed perceived mental illness as being more severe for individuals of color and believed Black individuals with mental illness were treated worse than those of other races (Connor et al., 2010). Consequently, the negative perception of Black individuals with mental illness may lead to self-stigmatizing behavior. Self-stigmatizing behavior occurs when a member of a stigmatized group internalizes stigmatizing social attitudes (West et al., 2014). Black individuals may self-stigmatize these negative perceptions of Black individuals with mental illness, which may result in behaviors to distance themselves from other Black individuals, who have mental illness. In other words, Black individuals may be unwilling or uninterested in interacting with a person with mental illness, especially if that person is Black. However, self-stigmatizing

behavior does not always occur, especially when an individual is high in self-regulation to override default stereotypes.

### **Self-regulation**

In general, individuals hold negative attitudes toward both Black individuals and those who are mentally ill. Because those attitudes are reflections of deeply self-held beliefs, they are triggered automatically. It is important to note, however, that humans possess the ability to override these automatically triggered impulses; that ability is referred to as self-regulation. Self-regulation has been defined as the ability to control one's self by altering one's decisions, resisting temptations, and inhibiting initial responses (Baumeister et al., 1998; Gailliot et al., 2007; Muraven et al., 1998).

Research on self-regulation has suggested that the energy needed to control one's own behavior is limited. Muraven and colleagues (1998) manipulated participants' self-regulation by having them watch an emotionally evocative movie and either control their emotions (self-regulation depletion condition) while watching the movie or feel whatever emotion they would naturally feel without exerting any emotion regulation (control condition) while watching the movie. Participants were then asked to engage in follow-up tasks that required self-regulation. Those who had previously exerted self-regulation performed worse on the subsequent tasks requiring self-regulation than participants who had not previously exerted self-regulation. Results suggested self-regulation is a limited resource such that after using self-regulation, less remains for use on future tasks. This state of having reduced self-regulatory capacity is called self-regulation depletion.

Self-regulation depletion is a temporary reduction in the capacity to demonstrate self-regulation (Baumeister et al., 1998; Muraven et al., 1998). It has also been described as a reduction in the readiness to engage in volitional acts caused by prior acts of volition (Baumeister et al., 1998). According to the limited resource model (Muraven et al., 1998), an individual becomes depleted after using self-regulation resources (e.g., making choices and decisions, overriding initial impulses; Baumeister et al., 1998). The limited resource model of self-regulation suggests not only that self-regulation capacity is limited but also that acts of self-regulation deplete this valuable resource – leaving individuals in a state of self-regulation depletion. When depleted, individuals have less of this precious self-regulation resource to spend in other domains requiring self-regulation.

Because racial and mental illness-based stereotypes and prejudice are often triggered automatically, self-regulation is required for many to override these impulses. Research has shown that participants who were in a state of self-regulation depletion were less able to perform tasks requiring self-regulation. Specifically, these individuals in a state of self-regulation depletion were less able to overcome their own biases (Baumeister et al., 1998; Gailliot et al., 2007). One study found that for some, especially those high in prejudice, suppressing racial stereotypes required self-regulation (Gailliot et al., 2007). Throughout a series of studies, Gailliot and colleagues (2007) found that stereotype suppression caused self-regulation depletion. In other words, suppressing stereotypes about individuals in stigmatized groups required self-regulation and led to a state of self-regulation depletion. This phenomenon is particularly noteworthy because

many everyday activities require self-regulation, thus leaving the actor in a state of self-regulation depletion.

In addition to Gailliot and colleagues' (2007) finding that suppressing stereotypes can result in a state of self-regulation depletion, Gordijn and colleagues (2004) found that suppressing stereotypes required self-regulation for individuals who were not internally motivated to suppress stereotypes. For individuals who were internally motivated to suppress stereotypes, personal beliefs were not congruent with these stereotypes. Individuals who were externally motivated to suppress stereotypes were trying to avoid negative reactions from others (Gordijn et al., 2004). Internally motivated individuals experience more depletion when suppressing stereotypes than externally motivated individuals, but both become depleted. This may be due to conflicting thoughts in suppression for internally motivated individuals. In addition, researchers found that stereotype suppression required self-regulation, and stereotypes were easier to access during self-regulation depletion. Suppressing stereotypes depleted self-regulation in externally motivated individuals (Gailliot et al., 2007), which is consistent with Gordijn and colleagues' (2004) study.

It is clear that suppressing stereotypes can lead to self-regulation depletion, and when individuals are in a state of self-regulation depletion, they may be less able to suppress stereotypes. This might lead to further discrimination of individuals from stigmatized groups. In other words, if participants had their self-regulation depleted, they might be more likely to espouse prejudicial feelings towards individuals they have

negative stereotypes about (e.g., individuals with mental illness or Black individuals) and be less willing to interact with those individuals, compared to non-depleted individuals.

### **Willingness to Interact**

Ample research on stereotyping and prejudice shows that individuals prefer not to interact with those with mental illness (Aljedanni, 2018) and those who are Black (Samochowiec & Florack, 2010). Although interacting with individuals in stigmatized groups is possible, research has shown that it is effortful and requires self-regulation (Baumeister & Vohs, 2007) to override initial prejudicial impulses. Therefore, it is posited that when individuals are in a state of self-regulation depletion, they will lack the resources needed to override their initial prejudicial impulses and will report being less willing to interact with a target than individuals who have the self-regulation capacity needed to override their initial prejudicial impulses.

### **Current Study**

As previously noted, it has been documented that Black individuals are perceived negatively in American society (Devine & Elliot, 1995; Katz & Braly, 1933; West et al., 2014). This perception has affected the views of Black individuals toward other Black individuals, especially Black individuals with mental illnesses (Connor et al., 2010). Many Black individuals view other Black individuals with mental illness harshly (Connor et al., 2010). Relatedly, self-regulation depletion – a temporary reduction in self-regulation – significantly reduces one’s ability to suppress stereotypes (Baumeister et al., 1998; Muraven et al., 1998). When suppressing stereotypes, self-regulation energy is

being used, which could cause self-regulation depletion, and consequently allow stereotypes to become more accessible. Through self-stigma and unconscious bias, the negative stereotypes about Black individuals and Black individuals with mental illness may be more accessible because of self-regulation depletion.

Therefore, it is hypothesized that Black individuals will have less desire for future interactions with a Black individual with mental illness while in a state of self-regulation depletion than a White individual with mental illness regardless of depletion state. In other words, it is expected that being in a state of self-regulation depletion will inhibit participants' ability to override stereotypes, and that will be especially true when there are more stereotypes to override (race and mental-illness status) than fewer (mental-illness status only). As a result, it is predicted that participants will be least willing to interact with a Black person with mental illness when those participants are depleted.



## **Chapter 2:**

### **Method**

#### **Participants**

One hundred and sixty-one participants were recruited from Stephen F. Austin State University (SFA), social media, SFA's Black Student Caucus, and flyers posted on SFA's campus, however, only 78 participants completed the study. Because this study focused on how Black individuals interacted with other Black or White individuals, 20 participants were excluded from analyses for not identifying as Black and/or African American, resulting in 58 participants (12 males and 45 females, 1 unreported). Participants' ages ranged from 18 to 53 ( $M = 24.00$ ,  $SD = 8.22$ ). The high attrition rate may have resulted from an insufficient incentive.

#### **Measures**

##### ***Attention Control Video***

To experimentally manipulate self-regulation, participants were randomly assigned to read one of two sets of instructions, and then all were instructed to watch the Attention Control Video (DeWall et al., 2007; Gailliot, Baumeister et al., 2007; Gilbert et al., 1988; Gino et al., 2011; Schmeichel, 2007; Vohs et al., 2005). The video is a seven-minute clip of a woman being interviewed but is silent, ostensibly to protect the privacy of the woman and the off-screen interviewer. In addition to seeing the woman being

interviewed, there are words that appear and change every 10 seconds in the bottom right corner of the screen. The words are neutral and have been shown not to affect the mood of participants (DeWall et al., 2007; Gino et al., 2011; Vohs et al., 2005). Sample words included glue, crutch, and disk.

The instructions for the control condition were adapted from previous research (Gilbert et al., 1988) and were as follows:

For the first activity, you are going to watch a short film clip that shows a woman being interviewed. To protect the privacy of the woman, the video doesn't have any sound so that you can only see her. Later you will answer some questions about this woman's personality. Since you won't be able to hear what she's saying you'll have to base your impressions of her on her nonverbal behavior. Then, when the clip is over you will fill out a short questionnaire, but you'll receive those instructions at the end of the video. *When the video starts, you are to watch it just as if you were sitting at home watching TV. Although people don't usually watch TV with the sound off, try to imagine that you are watching it at home. Although you'll be answering some questions about the woman's personality, don't worry about trying really hard to form an impression or anything like that. When the clip ends, click the arrow to proceed to the next part of the study.* (Italics are added here for emphasis and were not included in the study itself.)

These instructions were designed so that participants watched the video but did not expend any self-regulation doing so. After this manipulation, participants in this condition should have had the same level of self-regulation they had before the manipulation.

The instructions for the depletion condition were also adapted from previous research (Gilbert et al., 1988) and were as follows:

For the first activity, you are going to watch a short film clip that shows a woman being interviewed. To protect the privacy of the woman, the video doesn't have any sound so that you can only see her. Later you will answer some questions about this woman's personality. Since you won't be able to hear what she's saying you'll have to base your impressions of her on her nonverbal behavior. Then, when the clip is over you will fill out a short questionnaire, but you'll receive those instructions at the end of the video. *In addition to the woman being interviewed, you will also see some words on the bottom corner of the screen. It is very important for the purposes of this experiment that you keep your attention focused only on the woman's face and do not look down at the words that appear at the bottom of the screen. If you do accidentally look at the words, you are to re-focus your attention on the woman as quickly as possible. This task may be kind of difficult because the words take up a decent portion of the screen, but you should try really hard to ignore those words and focus only on the woman. When the clip ends, click the arrow to proceed to the next part of the study. Remember, focus*

*only on the woman and try to ignore the words.* (Italics are added here for emphasis and were not included in the study itself.)

These instructions were designed so that participants watched the video to expend self-regulation energy, however; there was no way to be sure participants completed this task as instructed. After this manipulation, if participants in this condition followed the directions, they should have had lower levels of self-regulation than they had before the manipulation.

#### ***Attention Control Instructions Attention Check***

This question was included to serve as an attention check and was assessed after participants read the video instructions, but before they watched the video. To assess whether participants read the instructions, participants answered the following question: “What did the instructions from the previous page tell you to do when watching the video you will see on the next page?” Answer options included the following: imagine that you are watching the video at home, remember every word that appears on the screen, count how many words have two or more vowels in them, and only focus on the woman and do not look down at the words that appear at the bottom of the screen. If participants in the control condition were paying attention to the directions, they should have selected the first answer, “imagine that you are watching the video at home,” whereas if participants in the depletion condition were paying attention to the directions, they should have selected the final answer, “only focus on the woman and do not look down at the words that appear at the bottom of the screen.” Responses to this item

determined whether the participant paid attention to the instructions. If participants answered incorrectly, they were redirected back to the instructions, asked to reread the questions, and then asked to answer this attention check item again. Regardless of whether their second-attempt answer was correct, participants proceeded to the video. Only final answers to this attention-check were used in data analysis.

### ***State Self-Control Capacity Scale***

This scale was included to serve as a self-regulation (i.e., self-control) depletion manipulation check. After watching the video, participants were told that before they rated the woman they just saw in the video, they needed to reflect on their own psychological state first. State self-regulation levels were assessed using the brief version of the State Self-Control Capacity Scale (SSCCS-B; Ciarocco et al., 2012). Sample items included, “I feel mentally exhausted,” and “If I were given a difficult task right now, I would give up easily.” Responses to this 10-item scale were given using a 7-point Likert scale (1-*not at all true* to 7-*very true*). Items 1, 2, 3, 4, 6, 7, 9, and 10 were reverse scored. Scores were averaged, and higher scores indicated more state self-regulation. If participants in the depletion condition had their self-regulation resources depleted, then they should have scored lower on this measure than participants in the non-depletion condition. If participants in the depletion condition did not score lower on this measure than participants in the non-depletion condition, then self-regulation depletion did not occur.

### ***Target Race Manipulation***

Because the purpose of this study was to test the effect of race of a target and participants' self-regulation levels (i.e., ego depletion status) on desire for future interactions, race of the target was manipulated. In order to manipulate race, participants viewed a short biography about a male target. Paired with the short biography (described below), participants were randomly assigned to view a picture ostensibly of the target about whom the biography was written. Participants were randomly assigned to view a photograph of either a Black or White male. The photographs of the two male targets used in this study were selected from the Chicago Face Database (Ma et al., 2015). The Black male target was rated by Chicago Face Database participants as being 18 years old and was rated on attractiveness as a 2.91 on a 7-point Likert scale (1-*not at all attractive* to 7-*extremely attractive*). The Black male target also had a trustworthiness rating of 2.42 on a 7-point Likert scale (1- *not at all trustworthy* to 7- *extremely trustworthy*). The White male target was rated by Chicago Face Database participants as being 19 years old and was rated on attractiveness as a 2.43 on a 7-point Likert scale. The White male target had a trustworthiness rating of 3.02 on a 7-point Likert scale. The two photographs were selected so that the only meaningful difference between the males in the photographs was their race.

### ***Target Information***

Paired with the selected faces from the Chicago Face Database (Ma et al., 2015) was a description of the target. The target's name, Joshua, was chosen from the Social

Security Administration website with the birth year set as 2001 (Social Security Administration, n.d.). Joshua was the fourth most popular boys' name that year. This year was chosen to match the rating of ages of the faces selected. The description of the target was as follows:

This is Joshua. He is a 19-year-old SFA student who is majoring in Kinesiology. Joshua enjoys playing video games and watching Netflix. His favorite part of college is going to football and basketball games. His biggest challenge is trying to succeed in college while also dealing with mental illness. Joshua hopes to get a job teaching and coaching when he graduates.

Both target pictures had the same biographical information about Joshua including the important detail that Joshua had mental illness. The only difference between the two conditions was whether Joshua, the male target, was presented as Black or White.

### ***Target Information Manipulation Check***

In order to manipulate race, participants were exposed to pictures and ostensible short biographies of a male target, who was either Black or White. To assess whether participants read the target's short biography and paid attention to the race of the target when viewing the picture, participants answered several manipulation check items. Specifically, participants were asked "What was Joshua's race?" Answer options were as follows: Black or African American and White. The answer to this question was used as the primary manipulation check item. Participants in the condition in which Joshua

was presented as White should have indicated that Joshua was White more than any other race. Participants in the condition in which Joshua was presented as Black should have indicated that Joshua was Black more often than any other race. If participants answered this race question incorrectly, they were redirected to the target's picture and ostensible biographical information, asked to reread the information about Joshua, and then asked to answer this manipulation check item again. Regardless of whether their second answer was correct, participants proceeded to the dependent variable, desire for future interaction. Only the final answers were used in data analysis.

#### ***Desire for Future Interaction Scale***

To assess participants' desire for future interaction with the target individual ("Joshua"), the primary dependent variable for this study, participants completed a modified version of the 8-item Desire for Future Interaction (DFI) Scale (Coyne, 1976). Sample items included, "Would you like to meet Joshua?" and "Would you like to sit next to Joshua on a 3-hour bus ride?" Responses to these items were given on a 5-point Likert scale (1-*not at all* to 5-*definitely*). Responses were averaged, and higher scores indicated a greater desire for future interaction with Joshua, the target.

#### ***Mental Illness Stigma Scale***

To assess participants' stigma towards mental illness, a potential covariate, Day's Mental Illness Stigma (MISS) Scale (Day et al., 2007) was used. Sample items included, "People with mental illnesses tend to neglect their appearance" and "People with mental illnesses ignore their hygiene, such as bathing and using deodorant." Responses were



assessed using a 28-item questionnaire on a 6-point Likert scale (1-*strongly disagree* to 6-*strongly agree*). Items 11 and 20 were reverse scored. Responses were averaged, and higher scores indicated more stigma toward individuals with mental illness.

### ***IMS/EMS Scale***

To assess participants' motivation for responding in a non-prejudiced way, participants completed the Internal/External Motivation to Respond without Prejudice (IMS/EMS) Scale (Plant & Devine, 1998). Sample items included, "If I acted prejudiced toward Black people, I would be concerned that others would be angry with me" and "I am personally motivated by my beliefs to be non-prejudiced toward Black people." Responses to these items were given on a 6-point Likert scale (1-*strongly agree* to 6-*strongly disagree*). Responses were averaged, and higher scores indicated more internal and/or external motivation to respond without prejudice.

### ***Familiarity***

To assess participants' familiarity with mental illness, participants completed the 5-item familiarity questions. Sample items included, "What is your familiarity with mental illness?" and "Have you been diagnosed with a mental illness?" Responses to these items were given using "yes" and "no" and open-answer responses.

### **Procedure**

Participants were recruited via SFA's SONA System, social media, SFA's Black Student Caucus, and flyers posted around SFA's campus. Participants who were recruited

via SFA's SONA System, an online participation management platform, self-selected into this online study. Participants recruited via social media, SFA's Black Student Caucus, and flyers posted around campus accessed the study through an anonymous web link. Data were collected using Qualtrics, an online data collection website. Before obtaining informed consent, participants viewed the requirements for completion of the survey, which included thirty minutes of uninterrupted time, to be taken on a computer, and in a quiet location or have headphones available (Appendix A). Next, participants were presented with a consent form and were asked whether they agreed to participate in the study (Appendix B). Participants who did not consent were thanked for their interest in this study and told that they were ineligible to participate. Those who consented to participate were randomly assigned to a depletion manipulation condition (Appendix C). Specifically, participants were either told to watch the forthcoming silent video of a woman being interviewed as they would at home (control condition) or to effortfully control their attention while watching the video by focusing on the woman and refraining from looking at the words that appeared on the bottom right corner of the screen (depletion condition). Before actually watching this video, an attention check was given to assess whether participants read the instructions correctly (Appendix D). Participants then watched the video in the way in which they were instructed to do in the previous instructions.

After watching the video (Appendix E), participants completed a measure of state self-regulation (Appendix F) and were randomly assigned to view a photograph of and

short biography about an ostensible SFA student with mental illness. Although all participants viewed the same biographical information, participants were randomly assigned to view a photograph of either a Black or White male target, both of whom were ostensibly named Joshua (Appendix G). Then the participants completed a manipulation check (Appendix H) regarding the race of the target and completed a questionnaire about their desire for future interaction with the target (Appendix I), which served as a measure of the dependent variable. Specifically, participants were told the following: “Think about what you have learned about Joshua. Imagine that you were to meet Joshua in person but the only information you had about him was what was presented to you on the previous page. Answer the questions below to indicate how willing you would be to interact with Joshua based on what you know about him.”

After completing the DFI questionnaire, the participants completed the MISS (Appendix J) and the IMS/EMS questionnaire (Appendix K). Next, the participants completed the demographics questionnaire (Appendix L), were debriefed (Appendix M), thanked for their participation, and granted course credit or asked whether they wanted to enter into a raffle for one of two \$25 Amazon cards. Participants who wished to enter the raffle were directed to a separate website to enter contact information. By doing this, participants’ responses could not be linked to their contact information.

## Chapter 3:

### Results

This study used a 2 (depletion manipulation condition: depleted or not depleted) X 2 (race of target: Black or White) between-subjects design. The dependent variable was the desire for future interaction and the covariate was the stigma towards mental illness.

To determine whether Joshua's race was successfully manipulated, a chi-square test was performed. It examined the relation between manipulated race condition and the participants' perceived race of Joshua. The relation between these variables was significant  $\chi^2(1, N = 60) = 60.000, p < .001$ , which indicated that Joshua's race was successfully manipulated.

A between-subjects *t*-test was conducted to assess whether self-regulation depletion was successfully manipulated. Depletion condition served as the independent variable, and State Self-Control Capacity Scale scores, which were assessed after the depletion manipulation, served as the dependent variable. Contrary to prediction, there was no significant difference found between the depletion condition ( $M = 5.263$ ) and the control condition ( $M = 5.107$ ),  $t(56) = -.482, p = .631$ , indicating participants in the depletion condition did not have less self-regulation than those in the control condition.

This lack of significant difference suggested that depletion was not successfully manipulated.

A 2 (depletion manipulation condition: depleted or control) X 2 (race of target: Black or White) analysis of variance (ANOVA) was conducted to examine the effects of depletion manipulation condition and race of Joshua on desire for future interaction. The main effect of depletion condition was not significant ( $M_{\text{control}} = 3.069$ ,  $M_{\text{depletion}} = 2.908$ ),  $F(1,53) = .959$ ,  $p = .332$ , partial  $\eta^2 = .018$ , however; this should be interpreted with caution because depletion was not successfully manipulated. The main effect of race of target was significant ( $M_{\text{Black}} = 3.449$ ,  $M_{\text{White}} = 2.629$ ),  $F(1, 53) = 14.014$ ,  $p < .001$ , partial  $\eta^2 = .209$ . The interaction between depletion manipulation condition and race was not significant,  $F(1, 53) = .212$ ,  $p = .647$ , partial  $\eta^2 = .004$ . Again, this should be interpreted with caution because depletion was not successfully manipulated.

Because all participants were asked about their desire for future interaction with Joshua, a man with a mental illness, it is possible that participants' desire for future interaction was influenced by their own stigma about mental illness. To control for mental illness stigma, a 2 (depletion manipulation condition: depleted or control) X 2 (race of target: Black or White) analysis of covariance (ANCOVA) was conducted with mental illness stigma as the covariate and desire for future interaction as the dependent variable. Levene's test and normality checks for an ANCOVA were all met. After controlling for mental illness stigma, results remained essentially the same. The main

effect of depletion manipulation was not significant ( $M_{\text{control}} = 3.034$ ,  $M_{\text{depletion}} = 2.866$ ),  $F(1,48) = 1.153$ ,  $p = .288$ , partial  $\eta^2 = .023$ . The main effect of race of target was significant ( $M_{\text{Black}} = 3.420$ ,  $M_{\text{White}} = 2.527$ ),  $F(1, 48) = 15.250$ ,  $p < .001$ , partial  $\eta^2 = .241$ . The interaction between depletion manipulation and race of target was not significant,  $F(1, 48) = .093$ ,  $p = .762$ , partial  $\eta^2 = .002$ .

Because participants' responses could have been influenced by the motivation to respond without prejudice and mental illness stigma, a 2 (depletion manipulation: depleted or control) X 2 (race of target: Black or White) ANCOVA was conducted controlling for mental illness stigma and internal and external motivation to respond without prejudice. The main effect of depletion manipulation was not significant ( $M_{\text{control}} = 3.033$ ,  $M_{\text{depletion}} = 2.818$ ),  $F(1, 43) = .815$ ,  $p = .372$ , partial  $\eta^2 = .019$ . The main effect of race of target was significant ( $M_{\text{Black}} = 3.396$ ,  $M_{\text{White}} = 2.500$ ),  $F(1, 43) = 10.546$ ,  $p = .002$ , partial  $\eta^2 = .197$ . The interaction between depletion manipulation and race of the target was not significant,  $F(1,43) = .058$ ,  $p = .810$ , partial  $\eta^2 = .001$ .

## **Chapter 4:**

### **Discussion**

The primary aim of this study was to assess the influence of self-regulation depletion and race of target on the desire for future interaction with a person with mental illness. Specifically, a main effect of race of the target was predicted such that participants would show a lower desire for future interaction with a Black individual with mental illness than a White individual with mental illness. Contrary to prediction, participants expressed significantly greater desire for future interaction with a Black individual with mental illness than a White individual with mental illness, perhaps suggesting that within-group racial preferences (Castano et al., 2002) overrode prejudices against individuals with mental illness in Black communities (Connor et al., 2010).

Additionally, a main effect of depletion condition was predicted such that participants would show a lower desire for future interaction with an individual with mental illness when the participants themselves were in a state of self-regulation depletion (i.e., when they were experiencing reduced self-regulation capacity) compared to when the participants were not in a state of self-regulation depletion. The results, however, indicated that self-regulation capacity was not effectively manipulated, which was one explanation for why the predicted main effect of self-regulation condition was not observed. Lastly, an interaction was predicted such that Black participants who were

depleted of their self-regulation resources would have less desire for future interaction with a Black target with mental illness than a White target with mental illness. This interaction hypothesis was not supported by the data either.

Additional tests were conducted to assess whether other variables might have exerted an influence on participants' desire for future interaction. Results suggested that, even after controlling for participants own mental illness stigma, the main effect of race on desire for future interaction remained significant. Even after controlling for variability related to participants' innate differences in mental illness stigma, participants were more willing to interact with a Black individual, a member of their own race, than a White individual. Further, a subsequent analysis was conducted to examine the effect of depletion condition and race condition on desire for future interaction controlling for mental illness stigma and internal and external motivation to respond without prejudice. These results indicated that mental illness stigma and motivation to respond without prejudice did not influence the effect of the depletion state on desire for future interaction but does influence the race of Joshua on desire for future interaction with Joshua.

Taken together, the results suggested that Black participants had more desire for future interaction with the Black target with mental illness than the White target with mental illness. This could be due to in-group versus out-group bias. According to Social Identity Theory, social identity concept is derived from knowledge of membership of a specific group or groups (Castano et al., 2002; Tajfel, 1978). Members of a group,



especially those who highly identify with that group, are more likely to display higher levels of in-group bias (Castano et al., 2002). This could explain why the main hypothesis – Black individuals would have more desire for future interaction with the White target with mental illness than the Black target with mental illness – was not supported by the data. The participants may have displayed more desire for future interaction with the Black target because of in-group biases.

### **Limitations**

There are several limitations to this study that could have affected the results. Most notably, the depletion manipulation task that was used did not successfully deplete the participants of their self-regulation resources. Practically, although participants were not able to skip the video when taking the survey, participants may not have actually watched the video in the depletion task as instructed. Unfortunately, the design of this study offered no way to be sure participants watched the video and followed the directions. According to Baumeister (2019), some studies have reported not successfully manipulating depletion in participants because of the specific depletion task used. Baumeister suggested that depletion tasks lasting less than five minutes and those that are conducted online result in less depletion than tasks taking longer than five minutes or that are conducted in face-to-face lab settings, respectively (Baumeister, 2019). Based on Baumeister's explanation, it is unsurprising that depletion effects were not observed.

In addition, the State Self-Control Capacity Scale that was used to assess participants' state self-regulation may not have been successful at detecting participants' self-regulation. A different self-regulation assessment may have been successful at detecting the participants' self-regulation state.

This study was conducted online, and the depletion manipulation itself only lasted seven minutes. The depletion manipulation was longer than the five-minute minimum identified by Baumeister (2019). Further, because all of the participants in this study were required to identify as Black and/or African American, and because the SFA psychology participant pool simply did not contain enough Black participants to meet the required sample size for this study, researchers made the decision to move this study from the lab to the internet in an effort to reach Black participants beyond the SFA campus. Unfortunately, doing so meant sacrificing the face-to-face nature of the study and likely the depletion manipulation as well. Researchers designing future studies should consider this guidance by Baumeister (2019) when making important methodological decisions about implementing a depletion manipulation.

Another limitation of this study was the inherent race and gender differences. The participants – all Black and/or African American – viewed a seven-minute video of a White woman. This inherent race difference between the participants and the women in the video could have activated an implicit or unconscious bias toward this White individual. In addition, the target's sex was male, and the majority of the participants

were female (78.9%). This could have also caused a bias in the participants by first watching a female in the video and then rating a male target. Perhaps the race and gender of the target in the video primed participants to respond in unanticipated ways to the target with mental illness. Researchers designing future studies should consider ways to control for these inherent racial and gender effects by having multiple videos or use race/gender matching with the person in the depletion manipulation video and the target who is presented as having a mental illness.

This study was underpowered. A power analysis with the power at .80 (Faul et al., 2007) was conducted before data collection began and revealed that 150 participants were necessary. Although 161 participants began the survey, most of them did not finish. Thirty-six participants dropped out of the depletion condition, 34 dropped out of the control condition, and 34 participants failed to complete the manipulation. After excluding participants who did not complete the survey or who failed to identify as Black and/or African American, only 58 participants remained. Although the obtained N is only about a third of the necessary N, previous research has found that at least seven participants are needed for each cell to yield a power at .5 (VanVoorhis & Morgan, 2007). Although this study was objectively underpowered, having at least eight participants in each cell in this study should have been sufficient for observing significance.

Another consideration was that the participants may have already been depleted at the beginning of the study, which could be why their levels of self-regulation did not differ between the depletion and non-depletion groups. Researcher have found that highly stigmatized groups have less self-regulation than non-stigmatized groups. This could be due to the stigmatized groups having to present a positive image and suppressing the negative stereotypes about their stigmatized group (Inzlicht et al., 2006). Furthermore, interracial interactions between Black and White individuals have been found to be depleting (Richeson et al., 2005). The more negative the attitude of Black individuals towards White individuals, the greater the self-regulation depletion effect (Richeson et al., 2005).

A final limitation is that the target's information included that Joshua's favorite part of college was going to football and basketball games. This information may have activated a positive stereotype of Black men in some of the participants. Black and/or African Americans have been stereotyped as athletic since at least 1933 (Devine & Elliot, 1995; Katz & Braly, 1933). Furthermore, the White Joshua had a smaller build than the Black Joshua. The differences between the White and Black targets' body builds may have influenced the participants. Perhaps participants' greater willingness to engage with Black Joshua resulted from the compatibility between Joshua's interests and stereotypes about Black men.

## **Future Directions**

Because of the inherent limitations of this study, many future directions are possible. Stereotyping of individuals with mental illness occurs by individuals of all races. The current study, however, only looked at Black participants. Future studies might implement a 2 (race of target: Black or White) X 2 (race of the participant: Black or White) design that would assess willingness to interact with a target with mental illness. Additionally, conducting an in-person study would allow for the depleting of self-regulation to be closely monitored to ensure participants are correctly following directions. The use of an eye-tracking device would confirm that participants in the depletion condition did, in fact, look away from the words at the bottom of the screen. Because of the cumbersome nature of this suggestion, researchers might also consider changing the depletion manipulation altogether. Although the Attention Control Video manipulation has been used successfully to deplete participants in past studies (DeWall et al., 2007; Gailliot, Baumeister et al., 2007; Gilbert et al., 1988), other depletion tasks might yield better results. A meta-analysis by Haggard and colleagues (2010) suggested the Modified Stroop Test (Dang et al., 2018; Stroop, 1935) and Handgrip task (Muraven et al., 1998) might be better depletion manipulations than the attention control video manipulation.

Previous research noted that members of a group are likely to display high levels of in-group bias, especially when those group members highly identify with the group

(Castano et al., 2002). In the current study, perhaps Black participants who highly identified with their racial identity had the greatest interest in interaction with the Black target, Joshua. Future research should include a measure of identification with one's racial identity to elucidate the role of a potential high identification in in-group bias.

A study that manipulated both the target's race and his/her mental illness status would allow for direct comparisons between race-based and mental illness-based prejudices. The unpredictability of an individual from a different race and having a mental illness has been shown to play a role in the willingness to interact with a target (Aljedanni, 2019; Samochoweic & Florack, 2010). Individuals were less willing to interact with an individual from a different culture than their own (Samochoweic & Florack, 2010). Perhaps, the participants – all Black and/or African American – were more willing to interact with the Black target because of the uncertainty of the White target's behavior. In addition, individuals have been shown to be less willing to interact with an individual with mental illness because of the unpredictability of their behavior (Aljedanni, 2019). A study manipulating both race and mental illness status of a target would allow for a direct test of the competing hypotheses between race and mental illness status on willingness to interact.

In the current study, a specific mental illness was not mentioned. The participants may have envisioned Joshua with a specific mental illness, even though one was not mentioned, and this could have affected desire for future interaction with Joshua. Future

studies should ask participants what specific mental illness participants envisioned Joshua having or should assign a specific mental illness to Joshua.

These results may help inform how Black mental health care workers approach their clients. Results of this study suggested that Black participants expressed a preference for the Black rather than White target with mental illness. Although the participants in this study were unlikely to be mental health care workers, if these results hold for that population, it is possible that Black mental health practitioners might express a preference for same-race over other-race clients. Future research should focus on mental health professionals to determine whether they show the same within-race preferences participants in this study expressed. Further, future research should focus on whether Black individual with mental illness prefer a same-race mental health professional.

## **Conclusion**

The primary hypothesis – Black individuals would have less desire for future interactions with a Black individual with mental illness while in a state of self-regulation depletion than with a White individual with mental illness regardless of depletion state – was not supported by the data. The interaction was not significant indicating race of a target and depletion state of the participants did not interact to affect the desire for future interaction with an individual with mental illness. However, a main effect of race of the target on desire for future interaction was significant. Specifically, it was found that Black participants reported more desire to interact with the target with mental illness

when the target was Black rather than White, a finding contrary to the hypothesis but that is supported by research focusing on within-group preference (Castano, Yzerbyt, Paladino, & Sacchi, 2002; Tajfel, 1978). Contrary to prediction, results provided no evidence for the role of self-regulation depletion on desire for future interaction with an individual with a mental illness. Additional studies are needed to determine whether this self-regulation effect exists and whether it interacts with race of the target to predict desire for future interaction.



## Chapter 5:

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## **Chapter 6:**

### **Appendix A**

#### Additional Instructions

This survey will require 30 minutes of uninterrupted time and to be taken on a computer. You will need to be in a quiet location or have headphones available. If you are ready to proceed, please click the arrow to move forward.

Do you have 30 minutes of uninterrupted time?

Yes

No

Are you ready?

Yes

No

## Appendix B

### INFORMED CONSENT

#### Investigator's statement

**PURPOSE:** In this study, we are interested in how the perception of mental illness is influenced.

**DURATION:** The length of time you will be involved with this study is approximately 20-30 minutes.

**PROCEDURES:** If you agree to be in this study, we will ask for you to watch a video, answer questions regarding the video, complete four questionnaires, and answer demographic questions. You may leave a question blank if you feel uncomfortable answering it. You may discontinue answering questions at any time.

**RISKS:** No risks are anticipated. Participants will be advised that they may choose to leave questions blank and/or discontinue completing the study immediately if they feel uncomfortable answering a question. If discomfort or a depressive state persists, please contact one of the numbers located on the debriefing sheet for referral information.

**CONFIDENTIALITY:** The records of this study will be kept private. Your name will not be attached to answers you provide. The investigators will have access to the raw data. In any sort of report that is published or presentation that is given, we will not include any information that will make it possible to identify a participant. This number will not be tied to any type of identifying information about you. Once collected, all data will be kept in secured files, in accord with the standards Stephen F. Austin State University (SFASU), federal regulations, and the American Psychological Association. In addition, please remember that the researchers are not interested in any individual person's responses. We are interested in how people in general respond to the measures.

**VOLUNTARY NATURE OF THE STUDY:** Your participation in this study is voluntary. In addition, you may choose to not respond to individual items in the survey. Your decision whether or not to participate will not affect your current or future relations with SFASU nor any of its representatives. If you decide to participate in this study, you are free to withdraw from the study at any time without penalty and without affecting those relationships.

#### **CONTACTS AND QUESTIONS:**

Kenocha Epperson: [eppersonkk1@jacks.sfasu.edu](mailto:eppersonkk1@jacks.sfasu.edu)

Dr. Lauren Brewer: [brewerle@sfasu.edu](mailto:brewerle@sfasu.edu)

If you have questions or concerns regarding this study and would like to speak with someone other than the researchers, you may contact The Office of Research and Sponsored Programs at (936) 468-6606.

**BENEFITS:** Students recruited from participating introductory psychology classes will



receive one (1) credit for every 30 minutes of research participation. This study is worth 1 research participant credit. Students from other classes will receive credit in that class in an amount that is considered appropriate by the course instructor (e.g., 5 points extra credit or 1-2% of the overall points possible in the class). Students also have the choice of entering into the raffle for one of two \$25 Amazon gift cards. Participants recruited via social media, the Black Student Caucus, and flyers posted around campus may enter into the raffle for one of two \$25 Amazon gift card.

**Statement of Consent:** The procedures of this study have been explained to me and my questions have been addressed. The information that I provide is confidential and will be used for research purposes only. I am 18 years of age and I understand that my participation is voluntary and that I may withdraw anytime without penalty. I have read the information in this consent form and I agree to be in the study.

**Signature of Participant: (Participant will click confirm as their electronic signature)\_**

## **Appendix C**

### **Attention Control Video Instructions (Control)**

#### **IMPORTANT- READ THESE INSTRUCTIONS CAREFULLY**

For the first activity, you are going to watch a short film clip that shows a woman being interviewed. To protect the privacy of the woman, the video doesn't have any sound so that you can only see her. Later you will answer some questions about this woman's personality. Since you won't be able to hear what she's saying you'll have to base your impressions of her on her nonverbal behavior. Then, when the clip is over you will fill out a short questionnaire, but you'll receive those instructions at the end of the video.

When the video starts, you are to watch it just as if you were sitting at home watching TV. Although people don't usually watch TV with the sound off, try to imagine that you are watching it at home. Although you'll be answering some questions about the woman's personality, don't worry about trying real hard to form an impression or anything like that. When the clip ends, click the arrow to proceed to the next part of the study.

### **Attention Control Video Instructions (Depletion)**

#### **IMPORTANT- READ THESE INSTRUCTIONS CAREFULLY**

For the first activity, you are going to watch a short film clip that shows a woman being interviewed. To protect the privacy of the woman, the video doesn't have any sound so that you can only see her. Later you will answer some questions about this woman's personality. Since you won't be able to hear what she's saying you'll have to base your impressions of her on her nonverbal behavior. Then, when the clip is over you will fill out a short questionnaire, but you'll receive those instructions at the end of the video.

In addition to the woman being interviewed, you will also see some words on the bottom corner of the screen. It is very important for the purposes of this experiment that you keep your attention focused only on the woman's face and do not look down at the words that appear at the bottom of the screen. If you do accidentally look at the words, you are to re-focus your attention on the woman as quickly as possible. This task may be kind of difficult because the words take up a decent portion of the screen, but you should try really hard to ignore those words and focus only on the woman. When the clip ends click the arrow to proceed to the next part of the study. Remember, focus only on the woman and try to ignore the words.

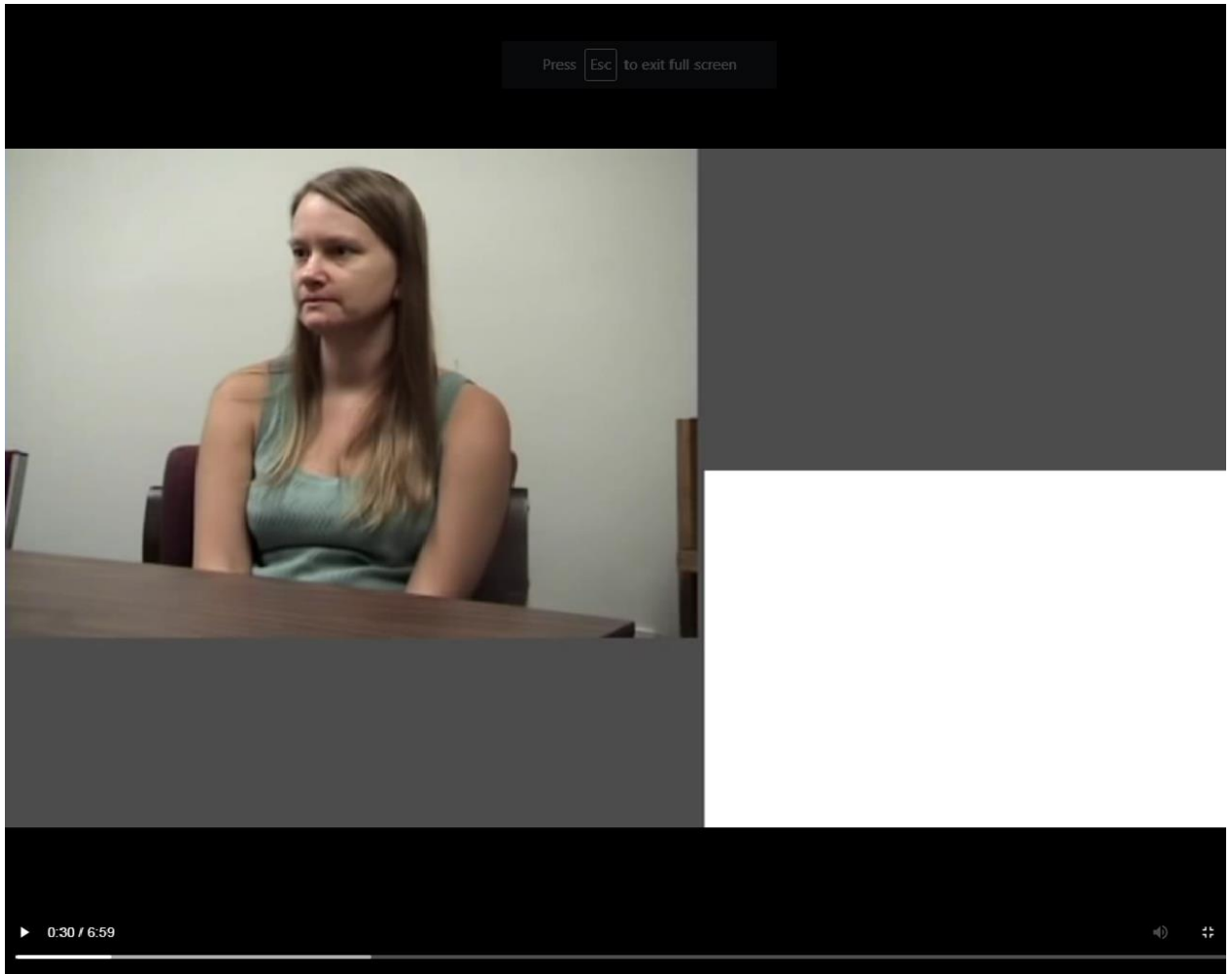
## **Appendix D**

### Attention Control Instructions Attention Check

What did the instructions from the previous page tell you to do when watching the video you will see on the next page?

- a. Imagine that you are watching the video at home.
- b. Remember every word that appears on the screen.
- c. Count how many words have two or more vowels in them.
- d. Only focus on the woman and do not look down at the words that appear at the bottom of the screen.

## Appendix E



[https://www.youtube.com/watch?v=EDudVLkXk\\_4](https://www.youtube.com/watch?v=EDudVLkXk_4)

## Appendix F

### Short form State Self-Control Capacity Scale

Please respond to the statements below, describing how you feel right now (not usually). We are interested in your feelings at this moment.

1. I need something pleasant to make me feel better.
2. I feel drained.
3. If I were tempted by something right now, it would be very difficult to resist.
4. I would want to quit any difficult task I was given.
5. I feel calm and rational.
6. I can't absorb any more information.
7. I feel lazy.
8. I feel sharp and focused.
9. I want to give up.
10. I feel like my willpower is gone.

Responses will be on a 7-point Likert scale (1– *not true* to 7– *very true*).

Items 1, 2, 3, 4, 6, 7, 9, and 10 will be reversed scored.

## Appendix G



### Description:

This is Joshua. He is a 19-year-old SFA student who is majoring in Kinesiology. Joshua enjoys playing video games and watching Netflix. His favorite part of college is going to football and basketball games. His biggest challenge is trying to succeed in college while also dealing with mental illness. Joshua hopes to get a job teaching and coaching when he graduates.



Description:

This is Joshua. He is a 19-year-old SFA student who is majoring in Kinesiology. Joshua enjoys playing video games and watching Netflix. His favorite part of college is going to football and basketball games. His biggest challenge is trying to succeed in college while also dealing with mental illness. Joshua hopes to get a job teaching and coaching when he graduates.

## **Appendix H**

1. What was Joshua's age?
2. What was Joshua's biggest challenge in college?
3. What was Joshua's race?



## Appendix I

### Desire for Future Interaction Scale

Think about what you have learned about Joshua. Imagine that you were to meet Joshua in person but the only information you had about him was presented to you on the previous page. Answer the questions below to indicate how likely you would be to have future interactions with Joshua based on what you know about him.

1. “Would you like to meet Joshua?”
2. “Would you like to spend time with Joshua?”
3. “Would you like to work with Joshua?”
4. “Would you like to sit next to Joshua on a 3 hour bus ride?”
5. “Would you invite Joshua to visit you?”
6. “Would you like to get to know Joshua better?”
7. “Would you ask Joshua for advice?”
8. “Would you consider having Joshua for a roommate?”

Responses will be on a 5–point Likert scale (1– *not at all* to 5– *definitely*).

## Appendix J

### Day's Mental Illness Stigma Scale

Please indicate the extent to which you agree or disagree with the statements listed below using the following scale. Responses will be on a 6–point Likert scale (1– *strongly disagree* to 6– *strongly agree*).

1. There are effective medications for mental illnesses that allow people to return to normal and productive lives.
2. I don't think that it is possible to have a normal relationship with someone with a mental illness.
3. I would find it difficult to trust someone with a mental illness.
4. People with mental illnesses tend to neglect their appearance.
5. It would be difficult to have a close meaningful relationship with someone with a mental illness.
6. I feel anxious and uncomfortable when I'm around someone with a mental illness.
7. It is easy for me to recognize the symptoms of mental illnesses.
8. There are no effective treatments for mental illnesses.
9. I probably wouldn't know that someone has a mental illness unless I was told.
10. A close relationship with someone with a mental illness would be like living on an emotional roller coaster.
11. There is little that can be done to control the symptoms of mental illness.
12. I think that a personal relationship with someone with a mental illness would be too demanding.
13. Once someone develops a mental illness, he or she will never be able to fully recover from it.
14. People with mental illnesses ignore their hygiene, such as bathing and using deodorant.

15. Mental illnesses prevent people from having normal relationships with others.
16. I tend to feel anxious and nervous when I am around someone with [a mental illness].
17. When talking with someone with a mental illness, I worry that I might say something that will upset him or her.
18. I can tell that someone has a mental illness by the way he or she acts.
19. People with mental illnesses do not groom themselves properly.
20. People with mental illnesses will remain ill for the rest of their lives.
21. I don't think that I can really relax and be myself when I'm around someone with a mental illness.
22. When I am around someone with a mental illness I worry that he or she might harm me physically.
23. Psychiatrists and psychologists have the knowledge and skills needed to effectively treat mental illnesses.
24. I would feel unsure about what to say or do if I were around someone with a mental illness.
25. I feel nervous and uneasy when I'm near someone with a mental illness.
26. I can tell that someone has a mental illness by the way he or she talks.
27. People with mental illnesses need to take better care of their grooming (bathe, clean teeth, and use deodorant).
28. Mental health professionals, such as psychiatrists and psychologists, can provide effective treatments for mental illnesses.

Items 11 and 20 were reverse-scored.

## Appendix K

### Internal Motivation to Respond Without Prejudice Scale (IMS) and External Motivation to respond Without Prejudice Scale (EMS) Items

We are trying to get an idea of the types of motivations that people in general have for responding in non-prejudiced ways. It is important that you respond to each of the questions openly and honestly. Please give your response according to the choices below. Responses will be on a 6-point Likert scale (1– *strongly agree* to 6– *strongly disagree*).

#### External motivation items

1. Because of today's PC (politically correct) standards I try to appear non-prejudiced toward Black people.
2. I try to hide any negative thoughts about Black people in order to avoid negative reactions from others. If I acted prejudiced toward Black people, I would be concerned that others would be angry with me.
3. I attempt to appear non-prejudiced toward Black people in order to avoid disapproval from others.
4. I try to act non-prejudiced toward Black people because of pressure from others.

#### Internal motivation items

5. I attempt to act in non-prejudiced ways toward Black people because it is personally important to me. According to my personal values, using stereotypes about Black people is OK.
6. I am personally motivated by my beliefs to be non-prejudiced toward Black people.
7. Because of my personal values, I believe that using stereotypes about Black people is wrong.
8. Being non-prejudiced toward Black people is important to my self-concept.

Question 5 was reverse-scored.

## **Appendix L**

### Demographics

1. Sex
  - a. Male
  - b. Female
  - c. Transman
  - d. Transwoman
  - e. Other
2. Age?
3. What is your country of origin?
4. I would describe my ethnicity as:
  - a. Hispanic or Latino
  - b. Not Hispanic or Latino
5. Race (Select all that apply)
  - a. White
  - b. Black or African American
  - c. American Indian or Alaska Native
  - d. Asian
  - e. Native Hawaiian or Pacific Islander
  - f. More than one race
  - g. Other
6. Classification:
  - a. Freshperson
  - b. Sophomore
  - c. Junior
  - d. Senior

e. Graduate

7. What is your mental health status?

- a. Extremely good
- b. Somewhat good
- c. Neither good nor bad
- d. Somewhat bad
- e. Extremely bad

8. What is your familiarity with mental illness?

- a. A great deal
- b. A lot
- c. A moderate amount
- d. A little
- e. None at all

9. Do you have a family member(s) or friend(s) with a diagnosed mental illness?

10. If yes, what is the name of the mental illness(es)?

11. Have you been diagnosed with a mental illness?

12. If yes, what is the name of the mental illness(es)?

## **Appendix M**

### **Debrief Sheet**

Thank you for participating in this study. In this study, we are interested in determining if race influences your willingness to interact with a person with mental illness. You watched a silent video of a woman and answered questions regarding the video. Depending on which condition you were in, you received a set of instructions for watching the video. After watching the video, you viewed a picture and read a short description about Joshua. Joshua was either Black or White depending on which condition you were in. Next, you answered a questionnaire about imagining you met Joshua in person. Finally, you answered two questionnaires regarding mental illness and motivation and completed questions about yourself.

In this study, we are interested in seeing the effects of self-regulation depletion and race on the perception of mental illness. This means we hypothesized when in a state of self-regulation depletion your perception of individuals with mental illness will change when the individual with mental illness is Black or White.

Thank you for your participation in this study. Please do not discuss the study with anyone for the next year. This will help ensure that the data is accurate. Again, thank you for your time and interest in this study.

If you have any emotional distress, please contact our campus counseling center at 936-468-2401 or [counseling@sfasu.edu](mailto:counseling@sfasu.edu).

If you have further questions in the future, please feel free to contact:

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## Vita

Kenocha K. Epperson completed her work at Jefferson High School in Jefferson, Tx, in 2013. After completing her work at the Texas State University, San Marcos, Tx, in 2017, Kenocha K. Epperson entered Stephen F. Austin State University in Nacogdoches, TX. During her time at Stephen F. Austin State University, she worked as a Graduate Teaching Assistant for the department of psychology. She received the degree of Master of Arts in General Psychology in May of 2020.

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This thesis was typed by Kenocha K. Epperson