

[Barry University](#)
[Institutional Repository](#)

[Theses and Dissertations](#)

2015

The Effects of Culture on Attitudes Towards Taking Psychotropic Medication; Differences in Individuals of Caucasian, Hispanic/Latino, and African American/Caribbean Descent

Dylan Rosenberg

BARRY UNIVERSITY

THE EFFECTS OF CULTURE ON ATTITUDES TOWARDS TAKING
PSYCHOTROPIC MEDICATION; DIFFERENCES IN INDIVIDUALS OF
CAUCASIAN, HISPANIC/LATINO, AND AFRICAN-AMERICAN/CARIBBEAN
DESCENT

by

Dylan Rosenberg, B.A.

A MASTER'S THESIS

Submitted to the Faculty of
Barry University in partial fulfillment
of the requirements for the degree of

Master of Science

Miami Shores, Florida

, 2015

BARRY UNIVERSITY

A thesis submitted in partial fulfillment of
the requirements for the degree of
Master of Science

The Effects of Culture on Attitudes towards Taking Psychotropic Medication;
Differences in Individuals of Caucasian, Hispanic/Latino, and African-
American/Caribbean Descent

by

Dylan Rosenberg, B.A.

Approved:

Stephen Koncsol, Ph.D.
Associate Professor of Psychology

Karen A. Callaghan, Ph.D., Dean
College of Arts and Sciences

Linda Bacheller, Psy.D./J.D.
Associate Professor of Psychology

David Feldman, Ph.D.
Associate Professor of Psychology

Date

Acknowledgements

This thesis would not have been possible without the guidance and the help of several individuals who in one way or another contributed and extended their invaluable assistance and knowledge throughout the preparation and completion of this Master's thesis.

I would like to express my deepest appreciation to those who have supported me throughout the entire process of this thesis. Because of all of the support, encouragement, and guidance I continually received from everyone in the Psychology Department, I have been able to complete a Master's thesis that I am immensely proud to have completed.

I would like to express my utmost gratitude to my thesis chair, Dr. Stephen Koncsol, who was constantly encouraging me and always made himself available to ensure that this thesis got completed. Furthermore, I'd like to thank Dr. Koncsol for his support in not only my thesis process, but in everything, including my future academic pursuits. The constant motivation and support truly helped me to complete a thesis that I was not only interested in but that I am proud of. I would also like to thank my committee members, Dr. Linda Bacheller and Dr. David Feldman, not only for your constant support and feedback throughout this process, but also for your support in my future academic pursuits. The support I have received from all of my professors in this program has been incredibly valuable in growing as a professional as I go on to pursue further academic interests.

Furthermore, I would also like to thank the entire faculty of the Psychology Department at Barry University, as well as my classmates. I have learned so much from

everyone that I have spent the last three years with, and each one of you has helped me grow as a student and professional.

Abstract

The present study addressed the effect of culture on attitudes towards taking psychotropic medication, and the willingness to take these medications. Four surveys were distributed to college students and others through the university online system and two major social media websites, Facebook and Twitter.

The current study consisted of 228 adult participants, 182 women and 46 men, over the age of 18 years, of: Caucasian-American, African-American/Caribbean, and Hispanic-American/Latino descent. A demographic questionnaire was administered for descriptive measures. Attitudes towards psychotropic medications were measured using the *Drug Attitude Inventory-30* (DAI-30) (UKPPG, 2006) and a Medication Questionnaire was created for the purpose of this study. Participants' identification with Individualism or Collectivism was measured using the *Individualism/Collectivism Scale* (House et. al, 2004). A 2x3 ANOVA and post-hoc t-tests were used to analyze the relationship between the variables.

The results of the study supported the hypothesis that culture affects attitudes towards taking psychotropic medication, as well as willingness to take these medications. The findings of the study are relevant because they established that there is a relationship between different cultures and differing attitudes towards taking medication in general, and taking psychotropic medication in particular. This information will be helpful in determining differing treatment planning for individuals from diverse cultures.

The Effects of Culture on Attitudes towards Taking Psychotropic Medication;
Differences in Individuals of Caucasian, Hispanic/Latino, and African-
American/Caribbean Descent

The purpose of this research was to determine whether individuals of different ethnicities have differing views on psychotropic medication and whether some ethnicities may be more willing to take medications than others. Psychotropic medication, in general, has always been controversial, i.e. a good versus a bad alternative to psychotherapy, especially for those who do not have the knowledge of or the access to such medication.

Much of the current research that has been conducted in this field aims to examine the effects of ethnicity on attitudes towards the use of psychotropic medication. Previous researchers revealed that more often Caucasians, both men and women, were more willing to take psychotropic medication than other ethnicities, such as African Americans and Hispanics. Individuals from more diverse ethnic backgrounds have been shown to be less willing than Caucasians to accept psychological treatment in any form, not only medication. In a study done by Harris, Edlund, and Larson (2005), the researchers found that Caucasian individuals compared to individuals from minority groups, such as African-Americans or Hispanic-Americans, were much more likely to seek help from mental health professionals. This research, as well as other research, not only showed the effect of ethnicity on attitudes towards psychotropic medication, but also attitudes towards medical treatments in general.

Other researchers have conducted studies to examine the types of mental health treatment individuals from different ethnic groups prefer. While it has been found that many Caucasian-American individuals preferred psychotropic medication, individuals

from different ethnic groups had their reservations about medication as a whole, psychotropic medication more so in particular, and preferred other options for treatment, i.e. psychotherapy. In a study done by Givens, Houston, Van Voorhees, Ford & Cooper (2007), researchers found that African-Americans and Latinos were much more likely to prefer counseling over psychotropic medications, while Caucasians preferred psychotropic medication over counseling.

The importance of research in this field is to establish empirically if there are differences between the different ethnic groups and their attitudes towards taking psychotropic medication. Once these differences in attitudes are understood, practitioners will be better able to help individuals from all different ethnic groups in treatment planning. In determining how different ethnic backgrounds affect an individual's views or attitudes towards psychotropic medications, we can establish more individualized treatment plans, and therefore, make sure people are more comfortable with the treatment modality they are receiving, whether it is through medication, counseling, or both.

Medication, broadly defined, is any manufactured substance that is used for medical treatment. There are two different types of medications, over-the-counter medications (OTCs), which can be bought at the store without a prescription and regulated medications that require a prescriber's authorization, i.e. prescription medications.

Prescription medications are those that require a physician's or a prescriber's written permission, i.e. a prescription, and are obtained from a pharmacy. Prescription medications can be used in two main ways: proper medical use or nonmedical use/abuse.

When a medication is being used properly, an individual has either seen a prescriber to obtain a prescription for that medication, or, alternatively, bought the medication over-the-counter. One type of prescription medication is psychotropic medication.

Psychotropic medications are “those medications prescribed to affect the central nervous system to treat psychiatric disorders or illnesses. They may include, but are not limited to, anxiolytic agents, antidepressants, mood stabilizers, antipsychotic medications, anti-Parkinson agents, hypnotics, medications for dementia, and psychostimulants” (2013 California Rules of Court).

Prescription medication abuse, as defined by *The National Institute on Drug Abuse* website, is when a medication is “taken for reasons or in ways or amounts not intended by a doctor, or taken by someone other than the person for whom they are prescribed.” This is commonplace in today’s society, and can be extremely dangerous. Some of the more commonly abused prescription drugs include: Oxycodone, Hydrocodone, Valium, Xanax, and often, in high school and college students, psychostimulants such as Ritalin and Adderall.

Manufactured medication was first introduced in 1899 with the development of Aspirin by the Bayer Company. After medication was made available, there were a series of court cases, such as *Webb v. US* (1919), in which the courts ruled that physicians and pharmacists could not provide addicts with medications to support their addictions. There was also *Doremus v. US* (1919), in which the court ruled that the federal government could regulate the dispensation of medications by physicians (DEA Museum). In 1951, the *Durham Humphrey Bill* was passed and required that any drug that is considered to be either habit-forming or potentially harmful be dispensed under the

supervision of a healthcare practitioner using written permission, i.e. a prescription.

These drugs must also have the following warning affixed: “Caution: Federal law prohibits dispensing without prescription” (FDA, 2009).

More recently, studies on psychotropic medication and their issues have been conducted, including studies concerning the relationship between ethnicity and use of psychotropic medications. Ethnicity can be operationalized as an individual’s self-reported social group where he/she can be identified as: Caucasian, African American, Asian/Pacific Islander, Hispanic/Latino, Native American, or other. Psychotropic medication can be operationalized as any medication that is prescribed by a doctor or healthcare practitioner for symptoms relating to mental illness, including but not limited to antidepressants, antianxiety medications, antipsychotics, mood stabilizers, hypnotics, and psychostimulants. (Krumrei, Newton, & Kim, 2010).

Willingness or nonwillingness to take psychotropic medication differs due to many variables. Although there have been many advances in pharmacological treatment in the recent years, many Americans often decline to take prescribed psychotropic medication (Croghan, Tomlin, Pescosolido, Schnittker, Martin, Lubell & Swindle, 2003). Angermeyer, Daumer & Matschinger (1993), Horne (1999), and Slovic, Kraus, Lappe, Letzel & Malmfors (1989) found that in several European studies, much of the stigma towards psychotropic medication is due to the belief that many people see psychotropic medication as “dangerous, unnatural, and harmful” (Croghan, Tomlin, Pescosolido, Schnittker, Martin, Lubell & Swindle, 2003).

Several studies have shown that despite the fact that Americans are knowledgeable about mental illness and its treatment, often times individuals believe the

treatment methods used for mental illness would not be right for them. In a study done by Link, Phelan, Bresnahan, Stueve, & Pescosolido (1999), researchers found that many Americans can correctly identify mental disorders. They also found that many Americans, when asked, reported that mental disorders can be caused by genetics, stress, and biological factors. Pescosolido, Martin, Link, Kikuzawa, Burgos, Swindle & Phelan (2000), found that many Americans also answer that they know that many mental illnesses cannot be treated without the use of psychotropic medication, and will not improve without psychotropic medication. According to Swindle, Heller, Pescosolido & Kikuzawa (2000), despite this knowledge, many Americans also reported low levels of willingness to see a doctor or use psychotropic medication if they were experiencing distressing mental health symptoms. (Croghan et al., 2003).

In a study conducted by Givens et al. (2007), differences were found between ethnicities and preferences for the treatment of depression. The choices given to participants were, psychotropic medication or counseling. The researchers found that Caucasians and Native Americans preferred psychotropic medication to counseling, whereas African Americans, Asians/Pacific Islanders, and Hispanics chose counseling over psychotropic medication. Within this study, it was found that stigma played a large role in preventing individuals from seeking help. Stigma has been found in many studies that have been conducted studying help-seeking patterns and different ethnic communities.

The Stigma Theory of Mental Illness (Mossakowski, Kaplan & Hill, 2011) states that those individuals who are diagnosed with mental illness are dangerous to themselves or others. This “involves attitudes and behaviors that reject, exclude, and disapprove

based on limited knowledge, fear, and prejudice”(Mossakowski et al., 2011).

Mossakowski et al. (2011) go on to state that society’s fear or concern of those diagnosed with mental illness or exhibiting symptoms of mental illness are likely dangerous to themselves or others; they write that this societal fear is one of the central elements of stigma. Many people believe that if they are diagnosed with a mental illness, they will be ostracized or rejected from society because of the illness, so they avoid seeking help.

Socioeconomic status is also associated with attitudes toward psychotropic medication and seeking mental health care. Those with lower socioeconomic status often have less access to health care, are less likely to receive treatment, and will therefore have more negative attitudes towards psychotropic medications and towards help-seeking. It has been found that ethnic minorities, who often do not have the same access to healthcare as others, may delay seeking help for mental health problems longer than others (Givens et al., 2007).

Although healthcare has become more readily available in recent years, differences between ethnicities still account for many individuals who go untreated for both psychiatric disorders and other medical problems. It has been shown in studies that even when given opportunities to see physicians, many individuals still will not see one (Briones, Heller, Chalfant, Roberts, Aguirre-Hauchbaum & Farr, 1990).

Psychotropic Medication

Historically, practitioners were not always able to treat mental illness with medication. It was not until the mid-20th century that psychotropic medications were developed. Before the 1950s, there were no effective psychotropic medications; people with mental illnesses were not given medications if they were experiencing distressing

symptoms (Hyman, 2013). It was in 1949 that John Cade (1912-1980) discovered the effectiveness of using lithium to treat manic symptoms. He had been interested in the properties of uric acid and had been experimenting with it, and through his experimentation with guinea pigs discovered that lithium has sedating effects on the animals (Hyman, 2013). The next step was to try the drug, a natural element, on humans; the experiment proved successful in stabilizing the moods of humans.

Despite many individuals' reservations about taking psychotropic medications, studies show that psychotropic medications are among some of the most commonly prescribed medications in the United States (Pincus, Tanielian, Marcus, Olfson, Zarin, Thompson & Zito, 1998). There have been multiple studies conducted to document prescribing practices among physicians, and more recently there have been more studies conducted regarding the relationship between who is seeking help from physicians and who is readily willing to take psychotropic medications (Pincus et al., 1998).

Psychotropic medications are among the most common drugs prescribed and taken in today's society; "...psychiatric drugs have been among the industry's most profitable product in the last several decades...one in five American adults now takes at least one psychiatric drug" (Hyman, 2013). While this is a substantial statistic, there is still an enormous number of people who go undiagnosed for many reasons and/or who refuse medication.

Types of Psychotropic Medication

Antidepressants are medications that are prescribed for depressive disorders. The most commonly prescribed medications for depressive disorders are SSRIs, or selective serotonin reuptake inhibitors, which increase the production of serotonin in the brain.

These include medications such as: Celexa, Prozac, Lexapro, Paxil, and Zoloft. These types of medications can be highly effective in treating those individuals who suffer from either chronic or acute depression.

Antipsychotics are medications that are prescribed for psychoses, which include illnesses such as schizophrenia. The first antipsychotic medication was developed in the 1950s when Henri Laborit (1914-1995) began testing the drug chlorpromazine, brand name Thorazine, as a medication to be used before anesthesia. Before this, chlorpromazine had been developed as an antihistamine. When Laborit saw that chlorpromazine was very sedating, he suggested that his colleagues in psychiatry try testing this medication with their most agitated, psychotic patients. These psychiatrists discovered that this sedation was actually a side effect of the medication, and the most beneficial part of chlorpromazine was that it was helping to reduce patients' hallucinations and delusions (Hyman, 2013). In the 1990s, "atypical" or second-generation antipsychotic medications were developed; these medications lower the level of dopamine in the brain. One of the most prominent of these second-generation medications was Clozapine, brand name Clozaril. Clozapine is very effective at treating psychotic symptoms such as hallucinations, but can have some serious side effects such as loss of white blood cells. Some other atypical antipsychotic medications have fewer side effects and therefore, these medications are typically prescribed first. For example, Risperidone, brand name Risperdal, and Olanzapine, brand name Zyprexa, have been shown to have fewer side effects than other antipsychotics.

Mood stabilizers are medications that are used to treat symptoms of mood disorders. Mood disorders, such as the bipolar disorders, are characterized by severe

mood shifts. These mood shifts are not the typical mood shifts that any individual may experience day-to-day. An individual with a mood disorder experiences intense mood shifts. The extreme highs are known as mania and the extreme lows are known as depression. Within these mood states an individual often shows poor judgment. If a mood disorder goes untreated, it can often progress into psychosis. The most common mood stabilizer is lithium carbonate, brand name Eskalith, which was approved by the FDA in the 1970's. Mood stabilizers reduce the level of several excitatory neurotransmitters in the brain. Although lithium has been proven to be very effective in treating bipolar disorder, it is often paired with an antidepressant in order to lessen the symptoms during the depressive stages (Office of Mental Health NY, 2008).

Anxiolytics, or anxiety medications, are medications that are prescribed for anxiety disorders. Symptoms experienced during anxiety include: uneasiness, jumpiness, feelings of apprehension, rapid or irregular heartbeat, stomachache, nausea, faintness, breathing problems, and sweating palms (OMH NY, 2008). Anxiety disorders include: obsessive-compulsive disorder, post-traumatic stress disorder, generalized anxiety disorder, panic disorder and social phobia. These are all common psychiatric disorders and in more recent decades, anxiety medication has been prescribed much more frequently. Common anti-anxiety medications include: Clonazepam, brand name Klonopin, Lorazepam, brand name Ativan, and Alprazolam, brand name Xanax (National Institute of Mental Health, 2012). These medications increase the level of GABA, an inhibitory neurotransmitter in the brain. In a longitudinal study conducted in Britain between 1993 and 2003, it was found that in 10 years, the use of psychotropic medication

increased significantly, especially the use of antidepressants and anxiolytics (Brugha, Bebbington, Singleton, Melzer, Jenkins, Lewis, Farrell, Bhugra, Lee, & Meltzer, 2004).

Hypnotics are medications that help to treat sleep disorders, such as insomnia. These drugs are sedatives, and aid in getting to sleep. These medications are prescribed, primarily, for insomnia, which is defined as “difficulty falling asleep, frequent awakening, early awakenings or a combination of each” (Rickels, 1986). There are many hypnotics that were developed specifically for sleep disorders, but often, physicians prescribe atypical benzodiazepines to aid with individuals sleep disorders. Popular hypnotics include Temazepam, brand name Restoril and Zolpidem, brand name Ambien. Hypnotics increase the level of GABA in the brain.

Psychostimulants are medications originally used to treat insomnia, but are now used to treat learning disorders such as Attention Deficit Disorder or Attention Deficit Hyperactivity Disorder. These disorders primarily affect attention, and those diagnosed with them have trouble paying attention and often get in trouble in school for their behavior. These medications affect impulse control and behavior regulation, as well as helping individuals pay attention. These medications are often prescribed to children diagnosed with learning disabilities in school. There are several different types of psychostimulants, but some of the medications that are more commonly prescribed include: d-Amphetamine, brand name Adderall, Methylphenidate, brand name Concerta and Ritalin. These medications increase the level of excitatory neurotransmitters in the brain.

Physicians and patients may need to try a few medications before they find the medications that will work for them. Often, people do not think medication will work for

them at all, and impulsively refuse to take medication. Many people will listen to what their physician recommends because they know that it is what will help them, while others are much more skeptical about the medication and the medical field. These differing views may be due to many determinants, such as: religion, family views, a country of origin, and other variables.

Psychotropic Medication & Socioeconomic Status.

Socioeconomic status (SES), by definition, is the social standing or class of an individual or group (APA). SES is often measured by a combination of education, income, and occupation. Those with higher SES have more availability to healthcare, and therefore access healthcare more frequently than those with lower SES.

Studies have been done to examine who takes psychotropic medications and the reasons why. Researchers have found that individuals of lower socioeconomic status are less likely to take psychotropic medication than those of higher socioeconomic status. This has been found to be due to variables such as these services being more readily available to those with higher SES and also the fact that individuals with lower SES are more often minorities (Schnittker, 2003).

Studies have also shown that individuals that come from a lower SES have different beliefs about psychotropic medication and are skeptical about medicine in general. This may be due to past events, such as the Tuskegee Syphilis Experiments or it may be due to the fact that they are simply not knowledgeable about the subject. According to Sussman, Robins, and Earls (1987), “misconceptions” about psychiatric medications have often been recognized as the reason for noncompliance, regarding the “intent, mechanism, or effects” of psychiatric medications. They go on to state that

African Americans are thought to often have a variety of incorrect beliefs about these medications that may prevent them from taking them or accepting them as a form of treatment (Schnittker, 2003).

Schnittker (2003) goes on to state that these differences in misconceptions may be due to differences in education levels and although many may have some form of education, Kuo and Hauser (1995) state that African Americans are less likely to receive a college degree. Individuals with a higher level of education are more likely to have knowledge of psychotropic medication benefits (Schnittker, 2003).

It has been shown in studies that there is a link between SES and mistrust or fear of the healthcare system. Mistrust of the healthcare system is more prevalent among individuals who report unmet needs for medical care. These individuals more often come from a lower SES and therefore do not have the healthcare readily available to them (Ojeda & Bergstresser, 2008).

According to Mechanic (1962), “illness behavior” is an essential component of whether an individual ever receives diagnosis or treatment. Mechanic (1962) states that situations of high “illness danger” can negatively affect an individual’s likelihood to seek medical care. “Illness danger”, as defined by Mechanic, is when the illness outcome is unpredictable and the amount of threat and loss are likely to result in high illness. Many people fear that if they seek help or display these behaviors, they might suffer the loss of social status or will not be able to fulfill their social role. It has been shown that variables such as gender, race, ethnicity and other socioeconomic variables are predictors of social role and status (Ojeda & Bergstresser, 2008).

Psychotropic Medication & Ethnicity.

Different cultures often have different views on medication due to their different belief systems. Many studies have been done to examine the different attitudes on psychotropic medication and treatment of mental illness across ethnicities. In a two-year longitudinal study done by Bender et al. (2007), African Americans reported that they were less willing than Caucasians to both seek mental health help and take psychotropic medications. In the same study, researchers found that Hispanics were less willing than both African Americans and Caucasians to seek help and take psychotropic medication.

Not only have studies shown that individuals from ethnically diverse backgrounds are less likely to take psychotropic medication, but they are also less likely to comply with psychopharmacological interventions. Opolka, Rascati, Brown, & Gibson (2003) found that medication adherence was significantly lower in Mexican Americans than in Caucasians. Another study done by Sleath, Rubin & Hutson (2003) found that Hispanics who were prescribed antidepressants in New Mexico were less adherent than non-Hispanics during a 100-day follow up (Rosenheck et al., 2005). Other studies done by Fleck, Hendricks, DelBello, & Strakowski (2002) and Opolka et al. (2003), found that African Americans reported lower adherence rates than Caucasians. Sellwood, Tarrier, Quinn, & Barrowclough (2003) conducted a study on patients diagnosed with schizophrenia. In this study, the researchers found that two independent variables, male gender and being Afro-Caribbean, were significant predictors of extreme noncompliance.

Many studies have shown that individuals from different ethnic backgrounds have varying attitudes towards taking psychotropic medications. In studies focusing on this subject, researchers have found that individuals from diverse ethnic backgrounds are much less likely to be willing to take psychotropic medication. In a study done by

Bender et al. (2007) on the relationship between ethnicity and mental healthcare utilization, the researchers found that participants who were Caucasian diagnosed with bipolar disorder were greater than six times more likely than Hispanic participants to use medication and seven times more likely to use medication than African American participants. In the same study, it was also found that Caucasian participants were also much more likely to use antidepressants than Hispanics or African Americans.

Ethnicity

As stated by Chaudhry, Neelam, Duddu & Husain (2008), “Ethnicity is a term, which represents social groups with a shared sense of history, sense of identity, geography and cultural roots.” This is different than a person’s race, which refers to physical characteristics. These two terms are often confused, but they are not interchangeable.

Often, on questionnaires, an individual is asked what their ethnicity is. The typical responses include: Caucasian, Black/African-American, Hispanic/Latino, Asian, Non-Hispanic/Latino, American Indian/Alaska Native, Native Hawaiian/Pacific Islander, or unknown. These questions are included, not only to find out if they are minorities, but to find out where their family or ancestors may have come from. There is often another question that asks about race, that includes similar choices.

Flaskerud (2000) cited Hautman & Bomar (1995) in her definition of ethnicity stating that ethnicity is based on a shared sense of peoplehood related to national or regional origin and sometimes on shared language, religion, and customs. Ethnicity also expresses shared kinship patterns and phenotypes or observable characteristics influenced by environment and genetics.

Ethnicity vs. Culture

Culture differs from ethnicity in that culture encompasses things such as an individual's beliefs, morals, and customs. These variables are often passed down from generation to generation. "Culture is a social construct which is characterised by the behaviour and attitudes of a social group. Determined by upbringing and choice, culture is constantly changing and is notoriously difficult to measure" (Vincent, 1994, 286).

In Flaskerud's (2000) article, "Ethnicity, Culture, and Neuropsychiatry", she stated that culture "refers to a learned system of values, beliefs, meanings, rules, and practices that are passed on from one generation to the next in patterned ways. Culture provides a way of looking at the world and experiencing it. Culture embodies all that is nonbiological and includes ideology, social structures, language, technology art, and artifacts (Hautman & Bomar, 1995; Helman, 1990; Sue, 1991, 7)."

Research done concerning culture usually looks at the differences between "individualistic" and "collectivistic" cultural perspectives. Harry Triandis (1926) was one of the first researchers to define the differences between individualism and collectivism. He wrote, "the individualism-collectivism cultural syndrome appears to be the most significant cultural difference among cultures (Triandis, 1996, 907). Triandis goes on to explain that there are a number of differences between individualistic and collectivistic cultures, both historically and cross-culturally. Marcus and Le (2013) stated that individuals that come from an individualistic culture tend to be more self-reliant with weaker family bonds; these individuals are more likely to isolate or separate themselves from their communities. Individuals that come from a collectivistic culture are more

likely to have strong family bonds and put a greater emphasis on the collective community or greater good.

Individualism and Collectivism.

Harry Triandis (2001) was one of the first researchers to write about culture in terms of individualism and collectivism. He examined the relationship between “the cultural syndrome” of individualism and collectivism and personality. Triandis stated that individuals that are a part of a collectivistic society are more likely to define themselves as a part of the group or community and give more priority to the goals of the group, whereas those who are a part of an individualistic society are more likely to define themselves as individuals rather than part of the larger group, and are more likely to put their own goals over the groups goals (Triandis, 2001, 907). Some studies have also been conducted regarding the relationship between locus of control (LOC) and individualism and collectivism. It has generally been found that people who come from individualistic cultures tend to have a more internal locus of control, whereas those who come from collectivistic cultures tend to have a more external locus of control. Those who have a more internal LOC believe that they have the power to change what is going on in their life. Therefore, an individual with an internal LOC would be more likely to seek help, because they believe that through seeking help, they can change the outcome. Those who have a more external LOC tend to blame external events for what is occurring in their life, and therefore may believe that seeking help will not help them because they cannot change what is happening to them.

In a study conducted by Kuo, Kwantes, Towson, and Nanson (2007), the authors stated that individuals with a greater external LOC tended to have a more negative

attitude toward help-seeking than those who had greater internal LOC. They stated that this was due to the fact that the “internality-externality dimension” affects ones’ recognition of need for help, the stigma associated with seeking professional help, how comfortable they may be opening up to a therapist, and whether they believe a therapist will be able to provide the necessary help (Kuo et al., 2007, 227).

Triandis (1989) also stated that people who are a part of individualistic cultures tend to sample elements of the individualistic or personal self, e.g. “I am kind”. Whereas people who are a part of collectivistic cultures tend to sample elements of the collectivistic self, e.g. “my family thinks I am kind” (Triandis, 2001, 908). Those who are a part of collectivistic cultures are reliant upon their groups, e.g. families, tribes, church, etc., and will give priority to the goals of the group over their own goals. These individuals tend to be more concerned with relationships and bonds that are built and are more concerned with the strength of the bonds. Ohbuchi, Fukushima, and Tedeschi (1999) conducted a study that indicated that when there is some type of conflict, those who are more collectivistic are more concerned with maintaining relationships, whereas those who are individualistic are more concerned with justice (Triandis, 2001, 909). While collectivists are primarily concerned with the greater group well-being and group goals, people who are part of an individualistic culture are more independent and self-reliant, and tend to give priority to their personal goals before others. Triandis also states that while this is generally how individuals from these types of cultures tend to view and respond to many situations, we cannot assume that every person in individualistic cultures has all of the characteristics of those cultures, or that all individuals in collectivistic cultures have all the characteristics of those cultures. He goes on to say

that, rather, people more often “sample from both the individualist and collectivist cognitive structures, depending on the situation” (Triandis, 2001, 909).

There are different types of individualism and collectivism that have been examined and measured. Triandis also stated individualism and collectivism can be examined on Vertical and Horizontal Scales; Vertical and Horizontal Scales of Individualism and Collectivism examine and assess horizontal and vertical social relationships. Triandis (2001) explains these differences further by stating that the horizontal-vertical aspect is important because it highlights the differences between what cultures emphasize. He states that some cultures, such as Australians, Swedes, and kibbutzim, emphasize equality, (a horizontal trait), whereas other cultures, such as Indians, and Americans, who want to be “the best”, emphasize hierarchy, (a vertical trait). Triandis (2001) goes on to explain that we can identify four types of cultures that can be formed when combined with either individualism or collectivism: horizontal individualism (HI), vertical individualism (VI), horizontal collectivism (HC), and vertical collectivism (VC).

Triandis (2001) explained the four types of cultures: Horizontal Individualism (HI), Vertical Individualism (VI), Horizontal Collectivism (HC), and Vertical Collectivism (VC). Within a Horizontal Individualistic (HI) culture, individuals want to be unique and be able to do “their own thing”. Within a Vertical Individualistic (VI) culture, individuals want to be able to do their own thing but also to be “the best” at that thing. Within a Horizontal Collectivistic (HC) culture, individuals tend to totally merge themselves with their in-groups, “we are all the same”. Within a Vertical Collectivistic (VC) culture, individuals tend to submit themselves to the authorities of the in-group and

are willing to sacrifice themselves for the their in-group, “we are all the same, but some of us are leaders” (Triandis 2001, 910).

Individualism and collectivism have also been used to explain stigma towards mental illness. Papadopoulos, Foster, and Caldwell (2013) conducted a study examining how different cultures view mental illness as well as their acceptance of it.

Papadopoulos et al., (2013) stated, “Stigma has been identified by mental health services as a key reason towards suicide attempts as potentially more disabling than the mental illness itself.” The authors go on to state that certain cultures are much more likely to stigmatize mental illness than other cultures, for example, it has been found that many people who are not native to the UK, but have immigrated there from other countries such as Greece, hold more stigmatizing views than white-English individuals who were born in the UK.

Papadopoulos et al. (2013) also explained that the more “complex” a culture is, the more likely it is to be a “loose” culture, as opposed to a “tight” culture. He states that “loose” cultures tend to have a higher tolerance for deviation from norms, and individuals do not rely on each other as much, therefore these “loose” cultures tend to be individualistic. The “tight” cultures tend to have clearer ideas about what behaviors are appropriate, and therefore have higher surveillance on those individuals who stray from the norms; therefore these “tight” cultures tend to be collectivistic. They go on to explain how stigma can affect individuals from “tight” cultures,

“Therefore, in such cultures where conformity to norms is highly valued highly valued, surveillance is high, and there are dense, multiple connections between people, it is not surprising that mental illness is easily perceived as outside of the norm and therefore devalued, rejected and stigmatized” (Triandis, 2013, 272).

In Papadopoulos et al.'s (2013) study, in examining individualism-collectivism scores within the groups, they found that the American participants scored the highest individualistic score, followed by the English, whereas the Chinese and the Greek/Greek Cypriots scored the highest collectivism scores. They also found that the American group scored higher on the vertical measure, and the white-English group scored higher on the horizontal measure. In examining mental illness attitudes within the groups, they found that there were significant differences in stigma levels between the four cultural groups. The American group scored significantly lower than all other groups on each of the four stigmatizing measures, and the Chinese group held the most stigmatizing views regarding mental illness. In examining how these constructs affect views on mental illness, the researchers found that collectivism served an explanatory role for groups who are strongly stigmatizing, whereas individualism served an explanatory role for those who tended to be more positive in their attitudes towards mental illness. Papadopoulos et al. (2013) stated that collectivistic cultures tend to be more stigmatizing due to lower levels of diversity and fragmentation generally found in such cultures, and the idea that individuals who deviate from the norm are more visible and likely to be scrutinized. Finally, the researchers stated that while these differences were examined within their study as well as others, "the likelihood of mental illness stigma occurring within a particular culture is mediated by a range of complex cultural factors such as context, norms, history and value systems such as individualism/collectivism" (Papadopoulos et al., 2013, 278).

Ethnicity and Socioeconomic Status.

Included in the concept of culture is the variable of socioeconomic status (SES). SES, as defined by the American Psychological Association (APA), is the social standing or class of an individual or group (American Psychological Association, 2015). Socioeconomic status is often measured by a combination of education, income, and occupation. The American Psychological Association states that SES, race and ethnicity are all connected; race and ethnicity often determine a person's SES (House & Williams, 2000). The APA states that communities often separate by SES, race, and ethnicity and that different individuals may share common characteristics, which may bring them together or separate them. Those with lower SES may not be able to afford healthcare, and due to not having healthcare readily available to them, they may also have their reservations about it as well.

Researchers have stated that ethnicity and socioeconomic status have a direct link to many things, including an individual's comfort level with mental health professionals and willingness to seek mental health help. It has been found that this relationship applies to all ethnicities that are of lower SES and have less frequent contact with healthcare workers (Briones et al., 1990).

Socioeconomic status and healthcare. Those with lower SES often do not have the option of receiving the healthcare that those with higher SES have readily available to them. Due to this, they may have their reservations about many medications or procedures that doctors may perform, because that is not what they are accustomed to. Ojeda and Bergstresser (2008) state that these differences in SES can significantly shape an individual's attitudes and behaviors towards help seeking.

Socioeconomic status may also have an effect on an individual's attitude toward medication, whether is it over-the-counter medication or medication prescribed by a physician. Although one reason some individuals may not seek help may be because they do not have financial resources available, there are other reasons as well. Ojeda & Bergstresser (2008) stated that stigma and shame may be some of the reasons that minority groups do not seek help. Another reason would be that some cultures emphasize the importance of self-reliance, such as the Latinos; this acts as a barrier to many seeking mental health care (Alegria, Canino, Rios, Vera, Calderon, Rusch & Ortega, 2002).

There is also the stigmatization of mental healthcare, which is more common in individuals who have lower socioeconomic statuses. Stigmatization of healthcare is a significant barrier to individuals getting the healthcare they need. The influence that stigma has on attitudes is enormous, and this causes individuals to not only decline minor medical recommendations like OTC medications, but also decline major medical recommendations like surgery (Ojeda & Bergstresser, 2008).

In the article by Briones et al. (1990), the author stated that, "the clinical literature shows that various ethnic and socioeconomic groups differ widely in their utilization of and attitudes toward professional mental health services. Findings over a 20-year period showed that persons of lower socioeconomic status tend not to utilize professional services of any kind except in extreme situations" (1333).

In the same article, Briones, Heller, Chalfant, Roberts, Aguirre-Hauchbaum & Farr (1990), referenced Hoppe & Heller (1975), who state that in their review of many studies, they found that many populations with lower SES possess similar characteristics.

They went on to say that included in these characteristics were: distrust of the world and belief that the world was chaotic and dangerous, heavy involvement with family and peers, and little involvement within their communities.

Socioeconomic Status and Prescription Drugs. Many studies have been done which demonstrate that individuals with lower socioeconomic status have less access to healthcare and therefore less access to prescription medication. This lack of access to healthcare may result in individuals suffering from poorer quality care and higher risks for medical complications (Dwight-Johnson & Lagomasino, 2007). Due to medications being less readily available to those with lower SES, individuals also have less access to medications including psychotropic medication. Due to not having access to this medication, there is a lack of knowledge of this medication, and therefore when many are offered the opportunity to take medications, they opt for other choices, such as counseling (Dwight-Johnson & Lagomasino, 2007).

Psychotropic Medication & Ethnicity

Within the research that has been done examining the relationship between ethnicity and psychotropic medication, the results from studies have varied slightly. Overall, it has been found that individuals from more diverse ethnic backgrounds are less likely to take psychotropic medication, while individuals from less diverse ethnic backgrounds are more likely to take psychotropic medication (Bender, Markowitz, Sanislow, Zonarini, Gunderson, Daversa, Dyck, Shea, Yen, Pinto, McGlashan & Grilo, 2007). It has been found in some studies that people from more individualistic societies are more likely to accept healthcare than those raised in more collectivistic societies. Individualistic cultures tend to value independence and individual goals, while

collectivistic cultures tend to value the family, community, and collective decision-making (Marcus & Le, 2013).

It has also been shown that socioeconomic status plays a role in an individual's attitude toward psychotropic medication. One is more likely to feel comfortable with these types of medication if they have a higher SES than if they have a lower SES. This is due to the fact that they have had more access to healthcare. Although not all individuals from ethnic backgrounds are classified as low SES, it has been shown that more individuals in lower SES are minorities. This data shows that these individuals have less access to healthcare and therefore tend to be more skeptical of medication and healthcare, in general (Dwight-Johnson & Lagomasino, 2007).

In a study examining the relationship between ethnicity and mental healthcare utilization, it was found that minority groups diagnosed with bipolar disorder were less likely to use medication throughout their lifetimes (Bender et al., 2007).

One study, conducted by Harris, Edlund, and Larson (2005), reported similar findings. The researchers found that mental health services were utilized less often by minorities than by Caucasians. Another similar study by Alegria et al. (2002) observed that Caucasians were more likely to receive mental health treatment than others. This data is consistent with other studies that show that, in general, African Americans and Hispanics are both less likely to take psychotropic medication and utilize health care services (Bender et al., 2007).

Bender et al. (2007) found that in their study, African Americans and Hispanics reported using medications such as anxiolytics, mood stabilizers, and antidepressants, about one-third to one-half as often as Caucasians reported using them. The researchers

stated that the data showed that African Americans remained less likely to take psychotropic medication than Caucasians over a follow-up period.

Often, individuals who are minorities have stigmatizing views about medication in general, and more so about psychotropic medication in particular. These individuals often believe that if they take psychotropic medication, they will be looked down upon by others within their community or lose status. Similarly, if these individuals are not educated about medication, they are likely to believe facts that may be incorrect.

In research done by Pescosolido et al. (2007), one of the researchers, Jensen, stated that access to healthcare and medication is not effective for those individuals who are concerned about stigma and how taking medication will affect them. He went on to say that even with access to these services or medications, many individuals are unlikely to make use of these services or accept services due to this fear of stigmatization (Pescosolido et al., 2007). In the same study, Pescosolido et al. (2007) found that almost half of the sample either agreed somewhat or strongly that by utilizing mental health care, their children would become outsiders at school and would also suffer in adulthood. Furthermore, the researchers found that most of the participants in the study stated that they strongly agreed or agreed that physicians overmedicate children who have common behavioral problems. Over half of the respondents answered that giving medication to children with psychiatric problems when they are young will only treat the problem for a short amount of time. They stated that it is simply delaying the problem, or delaying dealing with the real problems the children are having. Over half of the participants agreed that giving medication to children tends to make their personalities more dull or blunt. Overall, the researchers found that participants were less willing to medicate

children if a doctor recommended it, because they felt that it has the possibility to cause damage to the child in the short and long term (Pescosolido et al., 2007).

In an article by Papadopoulous, Foster, and Caldwell (2012), they stated that The World Health Organization highlights the damage that results from mental illness stigma. Those affected may experience the results of stigmatization in the following ways: loss of self-esteem, disruptions in relationships with their family, limitations in their ability to socialize, and problems obtaining housing or employment. Through studies done, it has been shown that certain cultures are more likely to stigmatize mental health problems and attitudes towards medication than other cultures. It was found in a study conducted nationwide by Anglin, Link & Phelan (2006), that African Americans were more likely than Caucasians to believe that individuals diagnosed with schizophrenia or major depression would act violently towards others. Similarly, in a study conducted by Whaley (1997), it was found that Asian-Pacific Islanders, African Americans, and Hispanics view individuals diagnosed with mental illness as significantly more dangerous than Caucasians view them. (Papadopoulous, Foster, and Caldwell, 2012). Link and Phelan (2001), stated that perceived stigma and fear of stigma can act as an obstacle to getting care. One of the big factors revealed was that anticipation of other's reactions can be a barrier to getting help (Ojeda and Bergstresser, 2008).

Mossakowski et al. (2011) examined Stigma Theory. They stated that "the stigma of mental illness involves attitudes and behaviors that reject, exclude, and disapprove based on limited knowledge, fear, and prejudice" (Link and Phelan, 2001). They stated that people stigmatize because they are not knowledgeable about mental illness; this theory also applies to the use of psychotropic medication. People stigmatize those who

take psychotropic medication and the idea of taking psychotropic medication due to a lack of sufficient knowledge about medication usage (Mossakowski et al., 2011).

In looking at stigma and attitudes towards the use of medication, researchers and physicians often address the difference between individualistic and collectivistic cultures. Bergstresser (2008) found that trust or fear of medical care varies consistently between ethnic groups. Takeuchi and Williams (2003) found that mistrust towards medicine is much more prevalent within minority groups, specifically African Americans.

Dwight-Johnson and Lagomasino (2007) reference Givens et al.'s research which stated that African Americans and Latinos are likely to prefer counseling over medication, whereas Caucasians are likely to prefer medication over counseling. Similarly, Bender et al. (2007) found that Caucasians not only were more likely to take psychotropic medication than African Americans or Hispanics, they were also more likely to utilize other types of treatment.

In an article by Khalsa et al. (2011), beliefs about mental illness and the causes for it are examined. The researchers state that patients identify a wide variety of beliefs about the causes of mental illness, including: interpersonal problems, developmental events, personality or cognitive causes, biological factors, environmental factors, and religious causes, as well as others. In this article, Addis and Carpenter (1999) state that it is important to understand the complexity behind the beliefs individuals have about the causes of mental illness. Understanding these beliefs may be instrumental in treatment, psychotherapy, and the overall outcome for the individual (Khalsa et al., 2011). In Khalsa's article it is stated that there are consistent differences between treatment preferences; African Americans are less willing to utilize any type of mental health

treatment than Caucasians or Hispanics, and are most reluctant towards the use of antidepressants. Khalsa and colleagues reference Dwight-Johnson et al. (2000), who stated that another factor that has an impact on whether an individual is likely to take psychotropic medication or not is experience with medication or lack thereof.

Studies examining medication adherence produce similar results. In a 2003 study conducted by Opolka et al., it was found that Mexican Americans diagnosed with schizophrenia were less likely to adhere to prescribed medications than Caucasian Americans diagnosed with schizophrenia. Similarly, in a 2003 study conducted by Sleath et al., the researchers examined Hispanics and non-Hispanics diagnosed with depression, researchers found that Hispanics were slightly less likely to be adherent than non-Hispanics in taking the anti-depressants they had been prescribed. In two studies done, data showed that African Americans reported lower medication adherence rates than Caucasians as well (Opolka et al., 2003; Fleck et al., 2002). (Diaz, Woods, & Rosenheck, 2005).

Overall, researchers have found that African Americans and Hispanics tend to be less likely to take psychotropic medication and also less likely to seek mental health care. These findings are consistent throughout this field. These differences among ethnicities are the result of many factors, including: cultural beliefs, income, and education. These factors all relate to each other and impact how an individual views the medical field. Psychotropic medication is part of the medical field that tends to be viewed with more skepticism than other forms of treatment, because to many individuals, psychotropic medications are viewed as unknown and frightening (Mojtabai, 2009, p.1022). One thing that has been consistent throughout studies examining ethnicity, culture, and psychotropic

medication is the fact that Caucasian individuals are more likely to take these medications than individuals of other ethnicities (Diaz et al., 2005; Givens et al., 2007; Ojeda & Bergstresser, 2008). While research has consistently found that Caucasians are most likely to take psychotropic medications, many of the studies that have been conducted have found discrepancies between whether Hispanics or African-Americans are more likely to take psychotropic medications.

Summary

Attitude toward medication, in general, is complex and affected by many factors. Culture and ethnicity often have significant effects on an individual's views towards medication and their willingness to take medication. There are many cultures that view medication as more taboo than others, and are less willing to take medications. Individualistic cultures are more likely to take medications than collectivistic cultures. Individuals who identify as collectivistic put an emphasis on the importance of the group or community, and are therefore less likely to seek help from a doctor or someone who is outside of their community or family. Individuals who identify as individualistic put an emphasis on the needs of the individual and doing what is best for the individual; therefore, these individuals are more likely to seek help from a doctor, or someone who is outside of their community or family. In general, Caucasian individuals tend to be the most individualistic, whereas African-American/Caribbean individuals, Hispanic-American/Latino individuals, and other cultures tend to be more collectivistic, and emphasize the importance of community and family. Past research indicates that culture is a good predictor of an individual's willingness to take medications, as well as their willingness to seek help. Understanding which types of treatment each ethnic group or

culture prefers is important in order to individualize preferred treatments and ensure that individuals receive the treatment that they need.

Rationale

The purpose of this study was to examine the relationship between culture and both attitudes towards medication and the willingness to take psychotropic medication. Past research has determined that culture has been a good predictor of attitudes towards medication as well as willingness to take medication. Studies have also determined that individuals from collectivistic and individualistic cultures have significantly different attitudes regarding all forms of treatment. While other research has examined cultural attitudes towards medication, studies have not been conducted specifically examining individuals of Hispanic/Latino and African-American/Caribbean descent. This study aimed to determine whether an individual's culture impacts their attitudes towards medication, specifically psychotropic medication, and their willingness to take medication.

Method

Participants

Participants for this study were undergraduate students from a private southeastern university as well as individuals collected through the use of social media websites, such as Facebook and Twitter. There were initially 311 participants. However, 83 participants were removed from the sample data due to failure to answer all of the questions. The resulting sample ($N = 228$) consisted of 182 females, and 46 males over the age of 18 years. Participants had the following cultural backgrounds: 110 Caucasian, 39 Hispanic/Latino, 33 African-American, 28 Caribbean, and 10 Asian/Pacific-Islander.

Those individuals who were below 18 years of age or not of the required cultural groups were excluded from the data analysis. Permission to conduct this study was granted by the University Internal Review Board.

Measures

Participants completed four online surveys via SurveyMonkey.com. A cover letter (see Appendix B), one demographic questionnaire (see Appendix C), and three psychometric measures (see Appendix D, E, and F) were anonymously presented to all participants through Survey Monkey. The first questionnaire that participants completed was an author constructed demographic questionnaire measuring: gender, age, ethnicity, primary language, birthplace, where the individual was raised, education level, marital status, religious background, employment status, current income, and previous mental health service history (see Appendix C).

The second questionnaire that participants completed was the *DAI-30*, (*Drug Attitude Inventory-30*) (Awad, G.A., Eastwood, R., & Hogan, T.P., 2015), a 30-item true or false scale that measures what people think of medications and what their experiences are while taking them. Two examples of items from this scale include: “I am not different on or off medication, T/F; It is unnatural for my mind and body to be controlled by medications, T/F” (see Appendix D).

The third questionnaire that participants completed was a medication survey questionnaire created by the author, which consists of a list of 13 types of medications, both psychotropic and non-psychotropic. This questionnaire was split into two sections; the first section listed the 13 medications and asked participants whether or not they have ever taken them. The participants answered with a simple “yes” or “no”. The second

section listed the 13 medications and asked the participants on a 5-point Likert scale how likely they would be to take these medications upon doctor recommendation. The participants were asked to choose a number from 1-5, with 1 equaling not likely at all, and 5 equaling extremely likely (see Appendix E).

The fourth questionnaire that participants completed was the *Individualism/Collectivism* scale by House et al. (2004). This is a 4-item questionnaire and uses a 5-point Likert scale that looks at the concepts of individualism and collectivism. The scores measure from 1 being “Strongly Disagree” and 5 being “Strongly Agree”. Two examples of questions from this questionnaire include: “Group welfare is more important than individual rewards” and “I focus on achieving societal goals more than individual accomplishments”. This survey was used to establish how strongly an individual identifies as individualistic or collectivistic (see Appendix F).

The surveys were distributed anonymously via SurveyMonkey.com after participants were recruited through the Barry University system and Social Media Websites. All questionnaires allowed the participants to remain completely anonymous, and no positively identifying information was requested or necessary for the surveys; participants were also able to opt out at any time if they wished to stop the survey.

Demographic Questionnaire. The demographic questionnaire was constructed by the authors in order to collect specific information about the participants of the study, including: age, gender, education level, ethnicity, language, birthplace, whether raised in the U.S. or not, religion, socioeconomic status, marital status, occupation, and psychiatric history (see Appendix C).

Drug Attitude Inventory-30 (DAI-30). The *Drug Attitude Inventory-30* (Awad, G.A., Eastwood, R., & Hogan, T.P., 2015) is a 30-item True or False Scale measures attitudes and beliefs about medication, as well as personal experiences while taking them. The items on this scale examine individual attitudes and beliefs medication and individual experiences while taking medications. Many of the items describe statements that are straightforward, such as: “I don’t need to take medication once I feel better” or “I take medications only when I feel ill”. While other items are purposely more open and left to interpretation, such as: “I feel strange, ‘doped up’ on medication” or “Medications are slow-acting poisons”. This scale is used to look at attitudes toward all medications, but because of the types of questions presented, it has shown efficacy in examining attitudes towards psychotropic medications as well (see Appendix D).

Medication Questionnaire. The *Medication Questionnaire* was author constructed and consisted of 13 types of medications, both psychotropic and non-psychotropic. The questionnaire was split into two sections: the first section listed the 13 medications and asked whether participants had taken the medications before or not with a “Yes” or “No”; the second section was a 5-point Likert scale, which listed the 13 medications again, but asked how likely the participant would be to take these medications with a physician recommendation. This questionnaire was created in order to examine attitudes toward specific medications and willingness to take them (See Appendix E).

The *Medication Questionnaire* that was developed for this study was subjected to tests of scale reliability, and the Cronbach’s Alpha was determined to be high, $\alpha = 0.853$. This indicates that there was good internal reliability, and that the results from the

Medication Questionnaire could possibly be generalized to a larger population or larger sample.

Individualism/Collectivism Scale. The Individualism/Collectivism Scale (House et. al, 2004) is a 4-item questionnaire that uses a 7-point Likert scale to examine the concepts of individualism and collectivism. The scores on this scale measure from 1 being “Strongly Disagree” to 7 being “Strongly Agree”. Two of the questions included on this questionnaire include: “Group welfare is more important than individual rewards” and “I focus on achieving societal goals more than individual accomplishments”. This survey was used to establish how strongly an individual identifies as individualistic or collectivistic (see Appendix F).

Design

The study was a 2x3 quasi-experimental design studying the relationships between gender and ethnic attitudes toward psychotropic medication. The results of this study measured the relationship of the independent variables, culture (Caucasian, Hispanic/Latino, and African-American/Caribbean) and gender (male vs. female), and the dependent variables, 1) attitudes towards psychotropic medication i.e. willingness to take these medications and 2) reported frequency of medication usage. This study predicted that individuals who were of Caucasian descent will be more willing to take psychotropic medication than individuals who were of Hispanic/Latino or African-American/Caribbean descent.

Procedure

Participants for this study were recruited anonymously through the University online system as well as through Social Media Websites, such as Facebook and Twitter.

Once agreeing to participate in the study, the participants completed four surveys anonymously on SurveyMonkey.com.

Upon opening the questionnaire, participants were first given the demographic questionnaire and asked to complete it. Once they completed the demographic questionnaire, they were presented with the *Drug Attitude Inventory-30 (DAI-30)*, a 30-item questionnaire examining individual attitudes towards medication and previous experiences with medication. After completing this, the participants were presented with the author constructed *Medication Questionnaire*, which was split into two sections. After completing the first section, which consisted of a list of 13 medications, asked them whether they have taken any of the medications before or not and answered with either a “Yes” or “No”, participants were presented with the second section. The second section included the same list of 13 medications, but the participants were asked to complete a 5-point Likert scale rating how likely they would be to take these medications if they were recommended or prescribed by a physician. After completing this questionnaire, the participant completed the *Individualism/Collectivism Scale*, a 4-item questionnaire that aids in establishing whether a participant identifies as Individualistic or Collectivistic. The entire process took approximately 15-20 minutes. After completing the questionnaires, the participants were presented with a window debriefing them and stating that if they had any questions they could contact the researchers at a specified email address, as well as thanking them for their participation. The questionnaires completed for this study were completely anonymous.

Statistical Design

Using the data output obtained, 2x3 ANOVAs were conducted using the scores from the *DAI-30* and the *Medication Questionnaire* for three cultural groups and two genders regarding attitudes towards psychotropic medication. Frequencies of medication type usage was collected and summarized. These analyses provided information about differing attitudes towards usage of psychotropic medication across three cultural groups and two genders.

Hypotheses

It was hypothesized that:

- H1:* Females of any culture will be more willing to take psychotropic medication than males of any culture.
- H2:* Caucasians will be more willing to take psychotropic medication than individuals of African-American/Caribbean descent or Hispanic/Latino descent, regardless of gender.
- H3:* Individuals of Hispanic/Latino descent will be more willing to take psychotropic medication than individuals of African-American/Caribbean descent, regardless of gender.

Results

The purpose of this analysis was to examine gender and cultural differences in attitudes towards psychotropic medication in a sample of Caucasian, Hispanic/Latino, African-American, and Caribbean males and females. Through data analysis, this study attempted to find the differences in attitudes towards psychotropic medication and willingness to take these medications in each cultural group, as well as attitudes towards

specific medications on the basis of the Theory of Individualism and Collectivism (Triandis, 2001).

The data collection for this study began in February 2015 when the questionnaires were formatted onto Survey Monkey. The URL was then emailed to undergraduate students in the psychology department at a private southeastern university in Florida and was also posted on social media websites, such as Facebook and Twitter. Data collection was completed in May 2015. The quantitative data was collected from participants anonymously through Survey Monkey and then exported onto an SPSS spreadsheet for analysis. Version 21 of the SPSS (2012) statistical package was used to analyze the quantitative data presented in this section.

The frequencies of the data collected via the Demographic Questionnaire, *DAI-30*, *Medication Questionnaire*, and *Individualism/Collectivism Questionnaire* were analyzed. Data for 228 adult participants was analyzed for descriptive measures. The data collected via the Demographic Questionnaire were analyzed for age, and indicated that the majority of participants were between the ages of 18 years and 23 years (42.1%), followed by individuals 36 years of age and older (27.2%), ages 24 years to 29 years (24.1%), and finally, ages 30 years to 35 years (6.6%). Of the 228 adult participants, the majority was female (79.8%). The data showed that the majority of participants identified as Caucasian (48.2%), followed by Hispanic/Latino (17.1%), African-American (14.5%), Caribbean (12.3%), and Asian/Pacific-Islander (4.4%). The data on the demographic questionnaire also indicated that the majority of participants' primary language was English (86.4%), followed by Spanish (5.4%), and French and Creole followed equally (1.3%). The data also indicated that the majority of participants were

raised in the United States (74.1%), with the remainder of participants indicating that they had been raised in other countries (21.9%). The data also indicated that most participants were Catholic (36.8%), followed by Christian (35.5%), Jewish (5.7%), Muslim (1.8%), Seventh Day Adventist (1.8%), Hindu (1.3%), Jehovah's Witness (.9%), and Buddhist (.4%). The data indicated that the majority of participants had consulted with neither a psychologist nor a psychiatrist in the past (46.9%), followed by having consulted with both a psychologist and a psychiatrist in the past (26.8%), having consulted with only a psychologist in the past (21.9%), and finally having consulted with only a psychiatrist in the past (3.9%). Finally, the data indicated that the majority of participants would consider consulting with a psychologist or psychiatrist if they felt it would help (71.5%), the remainder indicated that they would not seek help (13.2%).

Table 1 shows the frequencies and percentages of genders and cultures for the participants of this study. The summary data indicates that almost half of the participants were Caucasian and over half of the participants were female (See Appendix G).

Table 1

Frequencies and Percentages for the data from the *Demographic Questionnaire*.

	Frequency	Percent
Ethnicity		
Caucasian	110	48.2
Hispanic/Latino	39	17.1
African-American	33	14.5
Caribbean	28	12.3
Gender		
Female	182	79.8
Male	46	20.2
Age		
18-23	96	42.1
24-29	55	24.1
30-35	15	6.6
36+	62	27.2
Raised		
United States	169	74.1
Outside of the U.S.	50	21.9
Consulted with:		
Psychiatrist	9	3.9
Psychologist	50	21.9
Both	61	26.8
Neither	107	46.9
Would you consider consulting?		
Yes	163	71.5
No	30	13.3

Note. N = 228 (182 females, 46 males).

H1: Females will be more willing to take psychotropic medication than males, regardless of culture. For H1, Table 2 indicates that Caucasian Females ($M = 47.94$, $SD = 6.65$) presented with the highest mean score on the *DAI-30* and African-American Females ($M = 43.89$, $SD = 4.72$) presented with the lowest, with Hispanic/Latino and Caribbean Females falling somewhere in between. Hispanic/Latino Males ($M = 47.44$, $SD = 4.30$) presented with the highest mean score on the *DAI-30* and African-American Males ($M =$

41.40, $SD = 2.41$) the lowest, with Caucasian and Caribbean Males scoring somewhere in between (See Table 2).

Table 2

Means and Standard Deviations for *Drug Attitude Inventory-30 (DAI-30)* for four cultures and two genders.

Drug Attitudes Inventory Scale (DAI-30)			
Ethnicity	Gender	<i>M</i>	<i>SD</i>
Caucasian	Female	47.94	6.65
	Male	45.90	5.01
Hispanic/Latino	Female	44.03	4.77
	Male	47.44	4.30
African-American	Female	43.88	4.72
	Male	41.40	2.41
Caribbean	Female	44.55	5.38
	Male	44.50	5.2
Caucasian		47.55	6.41
Hispanic/Latino		44.84	4.84
African-American		43.50	4.56
Caribbean		44.53	5.24
Total		45.80	5.30

Note. The *DAI-30* consisted of 30 items, which were answered as T or F. Minimum = 30, Maximum = 60. $N = 228$ (Females = 182, Males = 46).

A 2x3 ANOVA was conducted on the scores on the *DAI-30* for male versus female attitudes towards psychotropic medication. The ANOVA for H1 revealed that regardless of culture, for this sample, females and males attitudes towards psychotropic medication did not differ significantly, $F(1, 198) = .656, p = .419$.

The frequencies and percentages of the scores on the *Medication Questionnaire* indicate that there are differences between male and female participant's past use of psychotropic medication (See Appendix K). For example, 45.1% of Caucasian female participants answered "Yes" when asked if they had taken Antidepressant Medications (e.g. Prozac) in the past, whereas all of the participants who identified as African-

American males and Caribbean males indicated that they had not taken Antidepressant Medications in the past.

H2: Caucasian individuals will be more willing to take psychotropic medications than individuals from other cultural groups. For H2, Table 2 indicates that Caucasians ($M = 47.55$, $SD = 6.41$) are more willing to take psychotropic medications than Hispanic/Latino individuals ($M = 44.84$, $SD = 4.84$), African-American individuals ($M = 43.40$, $SD = 4.56$), and Caribbean individuals ($M = 44.53$, $SD = 5.25$).

The descriptive statistics also indicated that Caucasian individuals in general were more likely to take psychotropic medication than individuals of other cultural groups. For example, when asked whether one had previously taken Antidepressants, 43.6% of Caucasian participants responded “Yes”, 9.1% of Hispanic/Latino participants responded “Yes”, and 10.3% of African-American participants responded “Yes” (See Table 3).

Table 3

Frequencies and Percentages of medications taken previously for *Medication Questionnaire* with medication type and culture.

Medication Type	N	%
Caucasian-American		
Antidepressant	48	43.6
Antianxiety	43	39.1
Mood Stabilizer	6	5.5
Sleep	37	33.6
Antipsychotic	3	2.7
Psychostimulants	22	20
African-American		
Antidepressant	3	9.1
Antianxiety	1	3
Mood Stabilizer	0	0
Sleep	3	12.1
Antipsychotic	2	6.1
Psychostimulants	5	15.2
Hispanic/Latino		
Antidepressant	4	10.3
Antianxiety	8	20.5
Mood Stabilizer	2	5.1
Sleep	8	20.5
Antipsychotic	0	0
Psychostimulants	10	25.6
Caribbean		
Antidepressant	1	5
Antianxiety	2	25
Mood Stabilizer	0	0
Sleep	3	22.5
Antipsychotic	0	0
Psychostimulants	3	37.5

Note. N = 228 (Females = 182, Males = 46). Table indicates how many individuals from each cultural group indicated “Yes” they had taken each medication in the past.

Five 2x3 ANOVAs were conducted to analyze the data. First, a 2x3 ANOVA was conducted on total scores from the *DAI-30* to examine differences in attitudes towards psychotropic medication among individuals of Caucasian descent, Hispanic/Latino descent and African-American/Caribbean descent. The resulting analysis showed that

there were significant differences between the attitudes towards psychotropic medication in individuals from different cultural groups, $F(4, 4) = 2.509, p = .043$. Scheffé's post-hoc t-test analysis revealed that there were significant differences in attitudes towards medication between Caucasians and African-Americans ($p = .016$). The post-hoc t-test analysis showed no significant difference between Caucasians and Hispanic/Latinos ($p = .180$), nor between Caucasians and Caribbean individuals ($p = .186$). The analysis showed no significant difference between Hispanic/Latinos and African-Americans ($p = .912$) nor between Hispanic/Latinos and Caribbean individuals ($p = 1.000$). Finally, the analysis showed no significant between African-Americans and Caribbean individuals ($p = .973$).

A second 2x3 ANOVA was conducted on the scores of the *Medication Questionnaire* Part 1 to examine prior use of medication among Caucasian, Hispanic/Latino, and African-American/Caribbean individuals. The resulting analysis showed that there was no significant difference in prior medication use in individuals from different cultural groups, $F(4, 204) = 1.805, p = .129$. Scheffé's post-hoc t-test analysis revealed significant difference between Caucasians and African-Americans ($p = .015$). The analysis showed no significant difference between Caucasians and Hispanic/Latinos ($p = .446$) nor between Caucasians and Caribbean individuals ($p = .135$). The analysis also showed no significant difference between Hispanic/Latinos and African-Americans ($p = .695$) nor between Hispanic/Latinos and Caribbean individuals ($p = .953$). Finally, the analysis also showed no significant difference between African-Americans and Caribbean individuals ($p = .987$).

A third 2x3 ANOVA was conducted on the scores of the *Medication Questionnaire* Part 2 to examine willingness to take medications with a physician referral among Caucasian, Hispanic/Latino, and African-American/Caribbean individuals. The resulting analysis showed that there was significant difference in willingness to take psychotropic medication in individuals from different cultural groups, $F(4, 192) = 6.930$, $p = .000$. Scheffé's post-hoc t-test analysis revealed significant difference between Caucasians and Hispanic/Latinos ($p = .039$), Caucasians and African-Americans ($p = .000$), and Caucasians and Caribbean individuals ($p = .005$). The analysis showed no significant difference between Hispanic/Latinos and African-Americans ($p = .214$) nor between Hispanic/Latinos and Caribbean individuals ($p = .931$). The analysis showed no significant difference between African-Americans and Caribbean individuals ($p = .778$).

A fourth 2x3 ANOVA was conducted on just the scores for Psychotropic Medications from the *Medication Questionnaire* Part 1 to examine prior use of psychotropic medication only among Caucasian, Hispanic/Latino, and African-American/Caribbean individuals. The resulting analysis showed that there were significant differences in prior psychotropic medication use in individuals from different cultural groups, $F(4, 208) = 5.282$, $p = .000$. Scheffé's post-hoc t-test analysis revealed that there were significant differences between prior use of psychotropic medication between Caucasians and Hispanic/Latinos ($p = .024$), Caucasians and African-Americans ($p = .003$), and Caucasians and Caribbean individuals ($p = .001$). The analysis showed no significant difference between Hispanic/Latinos and African-Americans ($p = .967$) nor between Hispanic/Latinos and Caribbean individuals ($p = .814$). The analysis showed no significant difference between African-Americans and Caribbean individuals ($p = .992$).

Table 4

Means and Standard Deviations for *Medication Questionnaire* Part 2 for Psychotropic Medication with Physician Recommendation with two genders, four cultures, and total.

Gender	Culture	M	SD
Female	Caucasian	18.70	6.21
	Hispanic/Latino	15.54	6.80
	African-American	11.37	6.13
	Caribbean	12.40	6.21
Male	Caucasian	17.50	7.92
	Hispanic/Latino	14.13	3.80
	African-American	10.20	1.80
	Caribbean	12.75	7.15
Total	Caucasian	18.50	6.52
	Hispanic/Latino	15.22	6.22
	African-American	11.19	5.66
	Caribbean	12.50	6.36

Note. N = 228 (Females = 182, Males = 46). The *Medication Questionnaire* Part 2 consisted of 13 items, which were answered on a 5-Point Likert scale. Minimum = 13, Maximum = 65.

Table 4 indicates that Caucasians ($M = 18.50$, $SD = 6.52$) were the most willing of the cultural groups to take psychotropic medication with a physician recommendation. Followed by Hispanic/Latinos ($M = 15.22$, $SD = 6.22$), Caribbean ($M = 12.50$, $SD = 6.36$) individuals, and African-Americans ($M = 11.19$, $SD = 5.66$).

A fifth 2x3 ANOVA was conducted on just the scores for Psychotropic Medications on the *Medication Questionnaire* Part 2 to examine a willingness to take psychotropic medication only with a physician referral among Caucasian, Hispanic/Latino and African-American/Caribbean individuals. The resulting analysis revealed significant difference in willingness to take psychotropic medications with a physician referral in individuals from different cultural groups, $F(4, 203) = 6.237$, $p = .000$. Scheffé's post-hoc t-test analysis revealed significant difference in willingness

between Caucasians and African-Americans ($p = .000$) and Caucasians and Caribbean individuals ($p = .001$). The analysis showed no significant difference in willingness between Caucasians and Hispanic/Latinos ($p = .139$), nor between Hispanic/Latinos and African-Americans ($p = .149$), nor between Hispanic/Latinos and Caribbean individuals ($p = .564$), nor between African-Americans and Caribbean individuals ($p = .962$).

H3: Hispanic/Latino individuals will be more willing to take psychotropic medication than African-American/Caribbean individuals. For H3, Table 2 indicates that Hispanic/Latino individuals ($M = 44.84$, $SD = 4.84$) were slightly more willing to take psychotropic medications than African-American individuals ($M = 43.40$, $SD = 4.56$) and Caribbean individuals ($M = 44.53$, $SD = 5.25$).

Scheffé's post-hoc t-test was conducted on the data from the *DAI-30*, and the analysis revealed that there were no significant differences between attitudes for Hispanic/Latinos and African-Americans ($p = .912$) nor between Hispanic/Latinos and Caribbean individuals ($p = 1.000$). The analysis revealed no significant difference between African-Americans and Caribbean individuals ($p = .973$).

Scheffé's post-hoc t-test was conducted on the data from the *Medication Questionnaire* Part 1, and the analysis revealed that there was no significant difference between prior use of psychotropic medication between Hispanic/Latinos and African-Americans ($p = .695$) nor between Caribbean individuals ($p = .953$). The analysis revealed no significant difference between African-Americans and Caribbean individuals ($p = .987$).

Scheffé's post-hoc t-test was conducted on the data from the *Medication Questionnaire* Part 2, and the analysis revealed that there was no significant difference between willingness to take psychotropic medications with a physician's recommendation between Hispanic/Latinos and African-Americans ($p = .214$), nor between Hispanic/Latinos and Caribbean individuals ($p = .931$), nor between African-Americans and Caribbean individuals ($p = .778$).

Scheffé's post-hoc t-test was conducted on the data from the *Medication Questionnaire* Part 1 to examine prior use of psychotropic medication (excluding non-psychotropic medication), and the analysis revealed no significant difference in prior psychotropic medication use between Hispanic/Latinos and African-Americans ($p = .967$), nor between Hispanic/Latinos and Caribbean individuals ($p = .814$), nor between African-Americans and Caribbean individuals ($p = .992$).

Scheffé's post-hoc t-test was conducted on the data from the *Medication Questionnaire* Part 2 to examine willingness to take psychotropic medication (excluding non-psychotropic medication), and the analysis revealed no significant difference in willingness between Hispanic/Latinos and African-Americans ($p = .149$), nor between Hispanic/Latinos and Caribbean individuals ($p = .564$), nor between African-Americans and Caribbean individuals ($p = .962$).

Individualism vs. Collectivism Questionnaire

In order to examine whether participants identified with either Individualistic or Collectivistic cultural influences, a 2x3 ANOVA was conducted on the results of the *Individualism/Collectivism Scale* and the culture and gender variables (See Appendix K). The resulting analysis showed that there were no significant differences between

participants and Individualistic or Collectivistic cultures, $F(4, 203) = 1.319, p = .264$.

Table 5 shows means and standard deviations of each question on the scale, and reveals that there were no significant differences between the items. Item 1 ($M = 4.32, SD = 1.62$) and Item 3 ($M = 3.36, SD = 1.57$) show the greatest difference, although both items inquire about similar values. However, Scheffé's post-hoc analysis revealed that there were significant differences in cultural values between Hispanic/Latino individuals and Caribbean individuals, ($p = .015$), as well as differences between African-American and Caribbean individuals, ($p = .017$). However, Scheffé's post-hoc analysis did not show significant differences in cultural values between Caucasian and Hispanic/Latino individuals ($p = .155$) nor between Caucasian and African-American individuals ($p = .170$), nor between Caucasian and Caribbean individuals ($p = .480$), nor between Hispanic/Latino individuals and African-American individuals ($p = 1.000$). Although this scale did not show significance initially when analyzed, after running Scheffé's post-hoc t-tests, the results indicated significant differences. However, due to the fact that this scale is composed of four questions, it may be difficult to assess cultural values in so few questions, and therefore may not be valid.

Table 5

Means and Standard Deviations for the *Individualism/Collectivism Scale*: House et al., (2004).

Individualism/Collectivism: House et al., (2004)	<i>M</i>	<i>SD</i>	<i>N</i>
1. Group welfare is more important than individual rewards	4.32	1.62	225
2. Individuals should pursue their goals only after considering the welfare of the group	3.65	1.55	221
3. I focus on achieving societal goals more than individual accomplishments	3.36	1.57	224
4. Group rewards should take priority over individual rewards	3.61	1.53	225

Note. N = 228 (Females = 182, Males = 46). This scale was a 7-point Likert Scale, 1 equaled Strongly Disagree and 7 equaled Strongly Agree; Minimum score = 4, Maximum score = 28. Higher Scores indicated stronger Collectivistic Values, Lower Scores indicated higher Individualistic Values.

Summary of Findings.

In sum, the results indicated that regardless of gender, culture has a significant influence on attitudes towards psychotropic medication and willingness to take medication. Hypothesis 1 stated that females of any culture would be more willing to take psychotropic medications than males of any culture; this hypothesis was not supported. Hypothesis 2 stated that Caucasians would be more willing to take psychotropic medications than individuals of Hispanic/Latino descent, or African-American/Caribbean descent, and this hypothesis was supported. The data indicated that Caucasians not only had taken more medications previously, but were also more willing to take medication than individuals from other cultures. Hypothesis 3 stated that Hispanics/Latinos would be more willing to take psychotropic medications than African-American/Caribbean descent, and this hypothesis was supported. The data indicated that Hispanic/Latino individuals had not only had taken more medications previously, but were also more willing to take medication than individuals from other cultures.

Discussion

The purpose of this study was to examine attitudes towards psychotropic medication and willingness to take these medications among individuals of different cultures and genders. There have been previous studies conducted examining attitudes towards psychotropic medication between different ethnic and cultural groups. However, few studies have examined attitudes towards psychotropic medication between Caucasian individuals, Hispanic/Latino individuals, and African-American/Caribbean individuals specifically. This study aimed to add to the current available literature examining this subject. Earlier research has found significant differences between attitudes towards psychotropic medication, perception, and willingness to take psychotropic medication between different groups. Previous studies also examined how stigma and concern for one's image affect willingness to seek help and willingness to take medication. Much of the existing literature indicated that attitudes towards medications in general, and specifically psychotropic medications, are influenced by culture and cultural values.

In this study, it was found that there were differences between attitudes towards psychotropic medication between females and males, regardless of culture. H1 posited that females would be more willing to take psychotropic medication than males, regardless of culture. Initially after the 2x3 ANOVA was conducted, H1 was not found to be significant. However, after examining the descriptive statistics, the means and standard deviations between specific medications and genders revealed differences between males and females and previous history of taking medication, as well as willingness to take medication. However, while previous studies have also shown significant differences between male and female attitudes towards medication in general,

and specifically psychotropic medication, due to the fact that the sample of the current study was composed of a majority of female participants (79.8%) it is likely that the data from the results may have been skewed.

In this study, it was found that regardless of gender, Caucasian individuals were significantly more willing to take psychotropic medication than individuals of other cultural groups. The data also indicated that Hispanic/Latino individuals were more willing to take psychotropic medication than African-American/Caribbean individuals. H2 posited that Caucasian individuals would be more willing to take psychotropic medication than African-American/Caribbean individuals or Hispanic/Latino individuals, regardless of gender. H3 posited that Hispanic/Latino individuals would be more willing to take psychotropic medication than African-American/Caribbean individuals, regardless of gender. This data was analyzed with 2x3 ANOVAs conducted on the scores of the *DAI-30* and the *Medication Questionnaire* to compare attitudes towards taking psychotropic medication as well as willingness to take psychotropic medication among Caucasian individuals, Hispanic/Latino individuals, and African-American/Caribbean individuals. After conducting the 2x3 ANOVAs, the Scheffé post-hoc t-tests were conducted and indicated that Caucasian individuals were more willing to take psychotropic medications than other cultural groups, and Hispanic/Latino individuals were more willing to take psychotropic medications than African-American and Caribbean individuals. Furthermore, in the descriptive statistics regarding specific medications, the data indicated that females were more willing than males to take psychotropic medications, and that Caucasian individuals were not only more willing to

take psychotropic medications, but had also taken more of these medications in the past than other cultural groups.

These findings are consistent with past literature and research, which demonstrated a relationship between cultural identity and attitudes towards medication in general. Previous literature has been conducted examining the relationship between culture and attitudes towards psychotropic medication and willingness to take medication, but few studies have focused on the populations examined in this study. Therefore, this study was conducted in order to examine the relationship between cultures that have not been studied together before, and attitudes towards psychotropic medication. Previous literature has indicated that culture and ethnicity have an effect on attitudes towards medication, medication adherence, and willingness to take medication. Some studies have indicated a clear relationship between culture and attitudes towards medication (Bender et al., 2007), while others have indicated varying results. Several previous studies have indicated disparities in the literature; some studies indicated that African-Americans were least likely to take psychotropic medication (Bender et al., 2007), and others indicated that Hispanic-Americans were least likely to take psychotropic medication (Sleath et al., 2003). Due to these differences in results, this study was conducted in order to learn more about the relationship between culture and medication attitudes. Several studies, such as the study conducted by Dwight-Johnson & Lagomasino (2007), have suggested that culture can have a large impact on attitudes towards medication and medication adherence. Similar studies, like the study conducted by Alegria et al. (2002), have demonstrated that the different types of culture, as well as

the different aspects of culture have large impacts on views towards many things, including medication.

While previous studies had examined the differences between Caucasians and other groups, no study had specifically addressed the relationship between the cultures that were examined in this study: Caucasian individuals, African-American/Caribbean individuals, and Hispanic/Latino individuals. Through data analyses, this study found that the relationship between culture and attitudes towards medication was causal. As hypothesized, Caucasian individuals were found to be the most willing to take psychotropic medication, followed by Hispanic/Latino individuals, followed by African-American individuals, and then Caribbean individuals.

The results supported both hypothesis 2 and hypothesis 3, in regards to history of psychotropic medication taken and willingness to take psychotropic medication with a physician referral with different cultures. The second hypothesis stated that Caucasian individuals would be more willing to take psychotropic medications than individuals of Hispanic/Latino or African-American/Caribbean individuals. The third hypothesis stated that Hispanic/Latino individuals would be more willing to take psychotropic medication than African-Americans/Caribbean individuals. The data revealed that Caucasians were most willing to take psychotropic medication, followed by Hispanic/Latinos, African-Americans, and then Caribbean individuals. These results indicated that psychotropic medication and willingness to take it was viewed significantly differently between cultural groups. This may indicate that individuals, regardless of cultural group or gender, may be more likely to take both psychotropic as well as non-psychotropic medications, in general, if a doctor suggests or recommends it than if they were to

consider using them independently of medical care. Past research has also shown that a physician recommendation has an impact on attitudes towards medication, in general, as well as willingness to take medication and adherence to treatment plans (Diaz et al., 2005). It is likely that these results will not only benefit the general population, but more specifically, physicians, pharmaceutical companies, therapists, and other professionals who must understand how culture affects these choices.

Furthermore, the *Individualism/Collectivism Scale* (House et al., 2004) regarding Individualistic and Collectivistic cultural values did not reflect differences frequently reported in the literature. Therefore, this scale may not be a valid scale and the results obtained from this scale may not be considered valid. Therefore, the results could not support, nor refute, the Individualism and Collectivism Theory (Triandis, 2001) we endorsed.

While previous literature has shown strong links between Collectivistic and Individualistic cultures and attitudes towards medications, and while this study did indicate slight significance on the *Individualism/Collectivism* scale, due to the fact that this scale is invalid, it is not possible to establish such a relationship between these variables, and it may be due to several reasons. First, the *Individualism/Collectivism* scale was likely not the most appropriate scale choice due to the fact that it consisted of only four questions. Because this scale is so short, there is a possibility that it cannot allow individuals to properly communicate their views about this type, or function, of culture. Second, a majority of the participants had been raised in the United States, and therefore may have less connection to their countries of origin or cultures of their

families. They may be more assimilated to American culture. Future research should use other scales, particularly those created by Triandis.

Finally, while we did not use any measures related directly to the Stigma Theory (Mossakowski et al, 2011), our results showed patterns of participant responses that supported data obtained in previous literature about culture and stigma. Previous studies on the Stigma Theory and stigma associated with taking medication and medical care indicate that Caucasians and the least likely to be affected by stigma and individuals of other cultural groups are more likely to be affected by stigma, and therefore are less likely to take medications or seek medical care. This study did not specifically examine Stigma Theory, but showed patterns of medication attitudes that support previous studies (e.g. Caucasian indicated the highest level of prior psychotropic medication use, and indicated that they were the most willing to take psychotropic medication with physician recommendation; other cultural groups indicated lower levels of prior psychotropic medication use, and indicated that they were less willing to take psychotropic medication with physician recommendation.)

Limitations

There were several limitations of this study. First, the participant sample was composed primarily of females, and therefore the effect of gender on drug-taking attitudes was not significant until post-hoc t-tests were conducted. Furthermore, males may have been under-represented to make a stronger conclusion about the contribution of male gender to overall attitudes towards medication. Therefore, while there was significance found for gender in post-hoc tests, it is likely that the data is skewed due to the uneven number of males and females in the study. The suggestion for future research

would be to recruit more evenly distributed groups of males and females to calculate whether gender is a contributing variable.

Second, while the hypothesis about Caucasian drug-taking attitudes towards medications was supported, it is unclear whether this finding was due to the large number of Caucasian participants or whether this cultural group was in fact a mediating variable. It is likely that the high percentage of Caucasian participants is a reflection on the participant pool, which was drawn from various states and other countries and therefore may be representative of a typical population sample of the U.S. population. According to the U.S. Census data, there are significantly more Caucasians in the United States than other cultural groups, so it would seem that this sample might be representative of the larger population sample (U.S. Census Bureau, 2014). Future studies should attempt to recruit equally sized groups for each culture being considered in an effort to reduce sample size as a confounding variable.

Third, the *Individualism/Collectivism Scale* (House et al., 2004) consists of only four questions, which may limit the amount of information an individual can give regarding their cultural values. Therefore, the data from this scale is probably not an accurate reflection of the participant's Individualistic and Collectivistic cultural values. Due to limited the number of questions, the scale most likely lacks validity. Therefore, for future research should use different scales.

Fourth, the descriptive data indicated that the majority of the participants were born and raised in the United States, and therefore may have weaker ties to their countries and cultures of origin. Many of the participants have probably assimilated to the American lifestyle, and therefore may not identify with the cultural values that their

families may identify with. Therefore, future research should be limited to newly immigrated individuals.

Finally, the sample size for this study consisted of 228 participants, and the majorities were female and Caucasian. Due to the sample size consisting of primarily one gender and one culture, results may have been skewed. There is the possibility that if the sample sizes of this study had been equivalent, there may have been more significant results.

Directions for Future Research

There are several questions to consider before conducting future research. Past research has shown that there is a relationship between culture and attitudes towards psychotropic medication and willingness to take psychotropic medication. This study was conducted examining cultural groups that had not been extensively examined together in past studies. While the data did show significance between gender and medication attitudes, due to a disproportionate number of females in this study, the data may have been skewed and may not be valid or reliable. Future research should focus on the impact of gender differences on medication attitudes using more equal sample sizes, without culture as a mediating variable.

Additionally, future research should examine the importance of physician recommendations and their impact on individual willingness to take medications, in general. This is particularly important when considering psychotropic medications, given cultural stigma towards mental illness and its treatment, as opposed to milder OTC remedies. In this study, as discussed, significance was observed for past psychotropic medication use, as well as when participants were asked whether a medical opinion or

recommendation would affect their likelihood of taking both psychotropic and non-psychotropic medications. This finding was evident for both psychotropic and non-psychotropic medications, indicating that regardless of medication type, a doctor's opinion is highly valued and therefore, a mediating variable. However, these findings may be skewed due to sample sizes of both the cultural groups and genders, and therefore may not be a reliable representation of drug-taking attitudes. Therefore, future studies should not only attempt to attain equal sample sizes but should also consider physician versus non-physician (e.g. nurse practitioner, prescribing psychologist, etc.) recommendations for medication when examining attitudes toward taking medication.

Appendix A

Announcement Letter

You are invited to participate in an anonymous psychological survey examining the relationship between culture and attitudes towards psychotropic medication.

This survey will take approximately 20-25 minutes to complete, and no longer than 30 minutes to complete. You may be able to receive extra credit for your participation. If necessary, please print the last page as proof of your participation.

Please go to the following link:

<https://www.surveymonkey.com/s/DRosenbergGradSurvey>

If you have any questions or concerns regarding this study, please contact me, Dylan Rosenberg, at dylan.rosenberg@mymail.barry.edu, my supervisor, Dr. Stephen Koncsol, at skoncsol@barry.edu, or Barbara Cook, at bcook@barry.edu.

Thank you,

Dylan Rosenberg, B.A.

Appendix B

**Barry University
Cover Letter**

Dear Research Participant:

Your participation in a research project is requested. The title of the study is: *The Effects of Culture on Attitudes towards Taking Psychotropic Medication; Differences in Individuals of Caucasian, Hispanic/Latino, and African-American/Caribbean Descent*. The research is being conducted by Dylan Rosenberg, a graduate student in the Psychology Department at Barry University, and it is seeking information that will be useful in the field of psychology and treatment planning. The aims of the research are to examine the attitudes towards psychotropic medications between individuals from different cultures and genders. In accordance with these aims, the following procedure will be used: four questionnaires follow this letter; these questionnaires are a simple demographic questionnaire, *the Drug Attitude Inventory-30*, a simple medication questionnaire, and *the Individualism/collectivism scale*. I anticipate the number of participants to be 400.

If you decide to participate in this research, you will be asked to complete four questionnaires. The first is a 12-item demographic questionnaire; the second questionnaire is the *Drug Attitude Inventory-30 (DAI-3)*, a 30-item true/false scale, which measures an individual's attitude about medications and their experiences while taking medications. The third questionnaire is a two-part 13-item yes/no medication questionnaire that lists which 13 types of medications and is split into two sections. The last questionnaire is the *Individualism/Collectivism scale*, which is a 4-item scale. The demographic and questionnaires are estimated to take no longer than 30 minutes to complete.

Your consent to be a research participant is strictly voluntary and should you decline to participate or should you choose to drop out at any time during the study, there will be no adverse effects. If you are a student there will be no effect on your grades.

There are no foreseeable risks associated with this study. The following procedures will be used to minimize any potential risks: participants can skip any questions you do not want to answer and may decline to participate in the study at any time. There are no direct benefits to you for participating in this study; however, your participation will contribute to research in the area of psychology and treatment planning.

If you are an undergraduate student currently enrolled in a psychology course at Barry University, you may be able to receive extra credit for your participation. Print a copy of this cover letter as proof of your participation.

As a research participant, information you provide is anonymous, that is, no names or other identifiers will be collected. SurveyMonkey.com allows researchers to suppress the delivery of IP addresses during the downloading of data, and in this study no IP address will be delivered to the researcher. However, SurveyMonkey.com does collect IP addresses for its own purposes. If you have concerns about this you should review the privacy policy of SurveyMonkey.com before you begin.

By completing and submitting this electronic survey you are acknowledging that you are at least 18-years-old and that you voluntarily agree to participate in the study.

If you have any questions or concerns regarding the study or your participation in the study, you may contact me, Dylan Rosenberg by email at Dylan.rosenberg@mymail.barry.edu or Dr. Stephen Koncsol by telephone at (305) 899-3270 or by email at skoncsol@barry.edu. You may also contact the Institutional Review Board point of contact, Barbara Cook, by phone at (305) 899-3020 or by email at bcook@mail.barry.edu.

Thank you for your participation.

Sincerely,
Dylan Rosenberg, B.A.

Print this page if you need proof of participation.

Appendix C

Demographic Questionnaire

1. What is your age?
 - a. 18-23
 - b. 24-29
 - c. 30-35
 - d. 36+
2. What is your gender?
 - a. Female
 - b. Male
3. What is your primary language?
 - a. English
 - b. Spanish
 - c. Creole
 - d. French
 - e. Other: _____
4. What is your ethnicity?
 - a. Caucasian
 - b. Hispanic/Latino
 - c. African-American
 - d. Caribbean: _____
 - e. Asian/Pacific Islander
 - f. American Indian or Alaskan Native
 - g. Prefer not to answer
 - h. Other: _____
5. Where were you born? _____
6. Where were you raised?
 - a. United States
 - b. Outside of the United States: _____
7. What is the highest level of education you have completed?
 - a. Elementary school
 - b. High school
 - c. Some college
 - d. Associates degree
 - e. Bachelor's degree
 - f. Master's degree
 - g. Doctorate degree
 - h. Professional (MD, JD, DDS, etc..)
8. What is your current marital status?
 - a. Single, never married
 - b. Married or in a domestic partnership
 - c. Divorced
 - d. Separated
 - e. Widowed
 - f. Other: _____

9. What is your religious background?
 - a. Catholic
 - b. Christian
 - c. Jewish
 - d. Muslim
 - e. Buddhist
 - f. Hindu
 - g. Seventh Day Adventist
 - h. Jehovah's Witness
 - i. Other: _____
10. Are you currently:
 - a. Employed for hourly wages
 - b. Employed for salary
 - c. Self-employed
 - d. A student
 - e. Retired
 - f. Unable to work
 - g. Unemployed
11. Which of these best represents your combined family income for the past 12 months?
 - a. Less than \$5,000
 - b. \$5,000 through \$11,999
 - c. \$12,000 through 15,999
 - d. \$16,000 through \$24,999
 - e. \$25,000 through \$34,999
 - f. \$35,000 through \$49,999
 - g. \$50,000 through \$74,999
 - h. \$75,000 through \$99,999
 - i. \$100,000 and greater
 - j. Don't know
 - k. No response
12. Have you ever consulted with a:
 - a. Psychiatrist
 - b. Psychologist
 - c. Both
 - d. Neither
13. If you have never consulted with a psychiatrist or psychologist, would you consider it if you felt it would help?
 - a. Yes
 - b. No
 - c. No response

Appendix D

Drug Attitude Inventory-30 (DAI-30)

With Modified Scoring: T = 1, F = 2

The aim of this questionnaire is to gain some understanding of what people think about medications and what experiences people have of them. Your answers will be used for research purposes only, are strictly confidential and will in no way affect your treatment.

How to fill in this questionnaire;

- 1 Read each statement and decide whether it is true as applied to you or false as applied to you.
- 2 If a statement is TRUE or MOSTLY TRUE to you, circle the T at the end of the line.
- 3 If a statement is FALSE or MOSTLY FALSE to you, circle the F at the end of the line.
- 4 If you want to change an answer, mark an X over the incorrect answer and circle the correct answer
- 5 If a statement is not worded quite the way you would put it, please decide whether the answer is mostly true or mostly false to you.
- 6 There are no right or wrong answers. Please give YOUR OWN OPINION, not what you think we might want to hear.
- 7 Do not spend too much time on any one question.
- 8 Please answer every question.
- 9 The medications referred to are those for mental health needs only.

1. I don't need to take medication once I feel better. T F
2. For me, the good things about medication outweigh the bad. T F
3. I feel strange, "doped up", on medication. T F
4. Even when I am not in hospital I need medication regularly. T F
5. If I take medication, it's because of pressure from other people. T F
6. I am more aware of what I am doing, of what is going on around me, when I am on medication. T F
7. Taking medications will do me no harm. T F
8. I take medications of my own free choice. T F
9. Medications make me feel more relaxed. T F
10. I am no different on or off medication. T F
11. The unpleasant effects of medication are always present. T F
12. Medication makes me feel tired and sluggish. T F
13. I take medication only when I feel ill. T F
14. Medications are slow acting poisons. T F
15. I get along better with people when I am on medication. T F
16. I can't concentrate on anything when I am taking medication. T F
17. I know better than the doctors when to stop taking medication. T F
18. I feel more normal on medication. T F
19. I would rather be ill than taking medication. T F
20. It is unnatural for my mind and body to be controlled by medications. T F

21. My thoughts are clearer on medication. T F
22. I should keep taking medication even if I feel well. T F
23. Taking medication will prevent me from having a breakdown. T F
24. It is up to the doctor to decide when I should stop taking medication. T F
25. Things that I could easily do are much more difficult when I am on medication. T F
26. I am happier and feel better when I am taking medications. T F
27. I am given medication to control behavior that other people (not myself) don't like. T F
28. I can't relax on medication. T F
29. I am in better control of myself when taking medication. T F
30. By staying on medications I can prevent myself getting sick. T F

Appendix E

Medication Questionnaire

Yes = 1, No = 2

Have you ever taken any of the following medications?

Please read each question and answer “yes” if you have taken the medication, or “no” if you have not.

1. Antidepressant, e.g. Prozac & Lexapro? Yes ___ No ___
2. Antianxiety Medication, e.g. Xanax & Ativan? Yes ___ No ___
3. Mood Stabilizer, e.g. Lithium & Lamictal? Yes ___ No ___
4. Sleep Medication, e.g. Ambien & Lunesta? Yes ___ No ___
5. Antipsychotic Medication, e.g. Risperdal & Zyprexa? Yes ___ No ___
6. Psychostimulants, e.g. Ritalin & Adderall? Yes ___ No ___
7. Anti-Inflammatory Medication, e.g. Advil & Tylenol? Yes ___ No ___
8. Antacids, e.g. Tums & Maalox? Yes ___ No ___
9. Cough Medication, e.g. Robitussin & Mucinex? Yes ___ No ___
10. Allergy Medication, e.g. Zyrtec & Claritin? Yes ___ No ___
11. Laxatives, e.g. Ex-Lax & Miralax? Yes ___ No ___
12. Antidiarrheal Medication, e.g. Imodium & Kaopectate? Yes ___ No ___
13. Cold and Flu Medication, e.g. Nyquil & Sudafed? Yes ___ No ___

On a scale from 1 to 5, with 1 being Not At All Likely and 5 being Very Likely, how likely would you be to take the following medications if a physician recommended or prescribed them?

- 1 = Not At All Likely
- 2 = Not Likely
- 3 = Somewhat Likely
- 4 = Likely
- 5 = Very Likely

1. Antidepressant e.g. Prozac & Lexapro: 1 2 3 4 5
2. Antianxiety Medication e.g. Xanax & Ativan: 1 2 3 4 5
3. Mood Stabilizer e.g. Lithium & Lamictal: 1 2 3 4 5
4. Sleep Medication, e.g. Ambien & Lunesta: 1 2 3 4 5
5. Antipsychotic, e.g. Risperdal & Zyprexa: 1 2 3 4 5
6. Psychostimulants, e.g. Ritalin & Adderall: 1 2 3 4 5
7. Anti-Inflammatory Medication, e.g. Advil & Tylenol: 1 2 3 4 5
8. Antacids, e.g. Tums & Maalox: 1 2 3 4 5
9. Cough Medication, e.g. Robitussin & Mucinex: 1 2 3 4 5
10. Allergy Medication, e.g. Zyrtec & Claritin: 1 2 3 4 5
11. Laxatives, e.g. Ex-Lax & Miralax: 1 2 3 4 5
12. Antidiarrheal Medication, e.g. Imodium & Kaopectate: 1 2 3 4 5
13. Cold and Flu Medication, e.g. Nyquil & Sudafed: 1 2 3 4 5

Appendix F

Individualism/Collectivism Scale: Dorfman & Howell (1998); House et al. (2004)

1. Group welfare is more important than individual rewards. **1 2 3 4 5 6 7**
2. Individuals should pursue their goals only after considering the welfare of the group. **1 2 3 4 5 6 7**
3. I focus on achieving societal goals more than individual accomplishments.
1 2 3 4 5 6 7
4. Group rewards should take priority over individual rewards. **1 2 3 4 5 6 7**

- 1 = Strongly Disagree**
2 = Moderately Disagree
3 = Slightly Disagree
4 = Neutral
5 = Slightly Agree
6 = Moderately Agree
7 = Strongly Agree

Appendix G

Frequencies and Percentages of Demographic Questionnaire Scores.

Demographic Questionnaire	N	%
Barry Student?		
Yes	92	40.4
No	135	59.2
Age?		
18-23	96	42.1
24-29	55	24.1
30-35	15	6.6
36+	62	27.2
Gender?		
Female	182	79.8
Male	46	20.2
Primary Language?		
English	197	86.4
Spanish	13	5.7
Creole	3	1.3
French	3	1.3
Ethnicity?		
Caucasian	110	48.2
Hispanic/Latino	39	17.1
African-American	33	14.5
Caribbean	28	12.3
Asian/Pacific-Islander	10	4.4
Where were you raised?		
United States	169	74.1
Outside of the United States	50	21.9
Highest level of education completed?		
High school	34	14.9
Some college	54	23.7
Associates degree	25	11
Bachelor's degree	73	32
Master's degree	25	11
Doctorate degree	5	2.2
Professional (MD, JD, DDS, etc...)	12	5.3
Current Marital Status?		
Single, never married	149	65.4
Married or in a domestic partnership	59	25.9
Divorced	13	5.7
Separated	1	0.4
Widowed	4	1.8
Religious background?		

Catholic	84	36.8
Christian	81	35.5
Jewish	13	5.7
Muslim	4	1.8
Buddhist	1	4
Hindu	3	1.3
Seventh Day Adventist	4	1.8
Jehovah's Witness	2	0.9
Are you currently:		
Employed for hourly wages	59	25.9
Employed for salary	49	21.5
Self-employed	24	10.5
A student	83	36.4
Retired	6	2.6
Unemployed	5	2.2
Combined family income for the past 12 months?		
Less than \$5,000	10	4.4
\$5,000 through \$11,999	13	5.7
\$12,000 through \$15,999	8	3.5
\$16,000 through \$24,999	12	5.3
\$25,000 through \$34,999	26	11.4
\$35,000 through \$49,999	19	8.3
\$50,000 through \$74,999	29	12.7
\$75,000 through \$99,999	29	12.7
\$100,000 and greater	43	18.9
Don't know	32	14
No response	6	2.6
Have you ever consulted with a:		
Psychologist	50	21.9
Psychiatrist	9	3.9
Both	61	26.8
Neither	107	46.9
If not, would you consider doing so if you felt it would help?		
Yes	163	71.5
No	30	13.2

Appendix H

Means and Standard Deviations for DAI-30 for Two Genders and Cultural Groups

Drug Attitudes Inventory Scale (DAI-30)			
Ethnicity	Gender	<i>M</i>	SD
Caucasian	Female	47.94	6.65
	Male	45.90	5.01
Hispanic/Latino	Female	44.03	4.77
	Male	47.44	4.30
African-American	Female	43.88	4.72
	Male	41.40	2.41
Caribbean	Female	44.55	5.38
	Male	44.50	5.21

Appendix I

Frequencies and Percentages of Medication Questionnaire Scores for Culture Variable.

Medication Questionnaire Part 1	N	%
<u>Caucasian</u>		
<i>Antidepressant</i>		
Yes	48	43.6
No	62	56.4
<i>Antianxiety Medication</i>		
Yes	43	39.1
No	66	60
<i>Mood Stabilizer</i>		
Yes	6	5.5
No	104	94.5*
<i>Sleep Medication</i>		
Yes	37	33.6
No	72	65.5
<i>Antipsychotic Medication</i>		
Yes	3	2.7
No	107	97.3*
<i>Psychostimulants</i>		
Yes	22	20
No	88	80
<i>Anti-Inflammatory Medication</i>		
Yes	104	94.5
No	6	5.5
<i>Antacids</i>		
Yes	82	74.5
No	27	24.5
<i>Cough Medication</i>		
Yes	89	80.9
No	21	19.1
<i>Allergy Medication</i>		
Yes	72	65.5
No	37	33.5
<i>Laxatives</i>		
Yes	36	32.7
No	73	66.4
<i>Antidiarrheal Medication</i>		
Yes	43	39.1
No	67	60.9
<i>Cold & Flu Medication</i>		
Yes	96	87.3
No	14	12.7

Hispanic/Latino

<i>Antidepressant</i>		
Yes	4	10.3
No	35	89.7
<i>Antianxiety Medication?</i>		
Yes	8	20.5
No	31	79.5
<i>Mood Stabilizer?</i>		
Yes	2	5.1
No	37	94.9*
<i>Sleep Medication</i>		
Yes	8	20.5
No	31	79.5
<i>Antipsychotic Medication</i>		
Yes	0	0
No	39	100*
<i>Psychostimulants</i>		
Yes	10	25.6
No	29	74.4
<i>Anti-Inflammatory Medication</i>		
Yes	35	89.7
No	4	10.7
<i>Antacids</i>		
Yes	25	64.1
No	14	35.9
<i>Cough Medication</i>		
Yes	35	89.7
No	4	10.3
<i>Allergy Medication</i>		
Yes	26	66.7
No	13	33.3
<i>Laxatives</i>		
Yes	11	28.2
No	28	71.8
<i>Antidiarrheal Medication</i>		
Yes	9	23.1
No	30	76.9
<i>Cold & Flu Medication</i>		
Yes	37	94.9
No	2	5.1

African-American

<i>Antidepressant</i>		
Yes	3	9.1
No	30	90.9*
<i>Antianxiety Medication</i>		
Yes	1	3

No	32	97
<i>Mood Stabilizer</i>		
Yes	0	0
No	33	100*
<i>Sleep Medication</i>		
Yes	4	12.1
No	29	87.9
<i>Antipsychotic Medication</i>		
Yes	2	6.1
No	31	93.9
<i>Psychostimulants</i>		
Yes	5	15.2
No	28	84.8
<i>Anti-Inflammatory Medication</i>		
Yes	26	78.8
No	6	18.2
<i>Antacids</i>		
Yes	15	45.5
No	18	54.5
<i>Cough Medication</i>		
Yes	27	81.8
No	6	18.2
<i>Allergy Medication</i>		
Yes	17	51.5
No	16	48.5
<i>Laxatives</i>		
Yes	16	48.5
No	17	51.5
<i>Antidiarrheal Medication</i>		
Yes	1	3
No	32	97*
<i>Cold & Flu Medication</i>		
Yes	30	90.9
No	3	9.1

Appendix J

Frequencies and Percentages of Number of “Yes’s” answered on Medication Questionnaire for Psychotropic Medications.

Number of "Yes's" on Psychotropic Medications		
<i>N</i> = 228	N	%
Antidepressant	116	50.9
Antianxiety Medication	46	20.2
Mood Stabilizer	37	16.2
Sleep Medication	17	7.5
Antipsychotic Medication	9	3.9
Psychostimulants	3	1.3

Appendix K

Frequencies and Percentages for *Medication Questionnaire* for two genders and four cultures.

Medication Type	N	%
Antidepressant		
Caucasian Female	41	45.1
Caucasian Male	7	36.8
Hisp/Lat Female	3	10.0
Hisp/Lat Male	1	11.1
Afr.-Am. Female	3	10.7
Afr.-Am. Male	0	0
Caribbean Female	1	5.0
Caribbean Male	0	0
Antianxiety		
Caucasian Female	36	39.6
Caucasian Male	7	36.8
Hisp/Lat Female	7	23.3
Hisp/Lat Male	1	11.1
Afr.-Am. Female	1	3.6
Afr.-Am. Male	0	0
Caribbean Female	0	0
Caribbean Male	2	25.0
Mood Stabilizer		
Caucasian Female	5	5.5
Caucasian Male	1	5.3
Hisp/Lat Female	2	6.7
Hisp/Lat Male	0	0
Afr.-Am. Female	0	0
Afr.-Am. Male	0	0
Caribbean Female	0	0
Caribbean Male	0	0
Sleep Medication		
Caucasian Female	26	28.6
Caucasian Male	11	57.9
Hisp/Lat Female	6	20
Hisp/Lat Male	2	22.2
Afr.-Am. Female	2	7.1
Afr.-Am. Male	2	40
Caribbean Female	2	10
Caribbean Male	1	12.5
Antipsychotic		
Caucasian Female	3	3.3
Caucasian Male	0	0

Hisp/Lat Female	0	0
Hisp/Lat Male	0	0
Afr.-Am. Female	1	3.6
Afr.-Am. Male	1	20
Caribbean Female	0	0
Caribbean Male	0	0
<hr/>		
Psychostimulants	N	%
<hr/>		
Caucasian Female	17	18.7
Caucasian Male	5	26.3
Hisp/Lat Female	6	20
Hisp/Lat Male	4	44.4
Afr.-Am. Female	2	7.1
Afr.-Am. Male	3	60
Caribbean Female	0	0
Caribbean Male	3	37.5

Note. The *Medication Questionnaire* was made up of two parts and each part consisted of 13 items. Part one was answered “Yes” or “No” and part two was answered on a 5-Point Likert Scale.

Appendix L

Means and Standard Deviations Individualism/Collectivism Scale by House et al. (2004)

Individualism/Collectivism: House et. al, (2004)	M	SD
Caucasian		
Female		
Group welfare is more important than individual rewards	4.44	1.64
Pursue own goals after considering welfare of the group	3.80	1.57
Focus on achieving societal goals more than indiv. accomplishments	3.40	1.55
Group rewards should take priority over individual rewards	3.76	1.40
Male		
Group welfare is more important than individual rewards	4.58	1.61
Pursue own goals after considering welfare of the group	3.70	1.73
Focus on achieving societal goals more than indiv. accomplishments	3.70	1.60
Group rewards should take priority over individual rewards	3.70	1.53
Hispanic/Latino		
Female		
Group welfare is more important than individual rewards	3.90	1.44
Pursue own goals after considering welfare of the group	3.00	1.49
Focus on achieving societal goals more than indiv. accomplishments	2.73	1.17
Group rewards should take priority over individual rewards	2.87	1.31
Male		
Group welfare is more important than individual rewards	3.63	0.74
Pursue own goals after considering welfare of the group	3.50	1.20
Focus on achieving societal goals more than indiv. accomplishments	4.14	1.21
Group rewards should take priority over individual rewards	3.88	1.46
African-American		
Female		
Group welfare is more important than individual rewards	3.86	1.41
Pursue own goals after considering welfare of the group	3.36	1.64
Focus on achieving societal goals more than indiv. accomplishments	2.54	1.45
Group rewards should take priority over individual rewards	2.75	1.48
Male		
Group welfare is more important than individual rewards	3.00	2.55
Pursue own goals after considering welfare of the group	4.20	2.17
Focus on achieving societal goals more than indiv. accomplishments	4.20	2.39
Group rewards should take priority over individual rewards	4.20	2.17
Caribbean		
Female		
Group welfare is more important than individual rewards	4.85	1.81
Pursue own goals after considering welfare of the group	3.95	1.39
Focus on achieving societal goals more than indiv.	4.10	1.86

accomplishments		
Group rewards should take priority over individual rewards	4.10	1.65
	Male	
Group welfare is more important than individual rewards	5.50	1.20
Pursue own goals after considering welfare of the group	4.00	1.31
Focus on achieving societal goals more than indiv.		
accomplishments	3.50	1.41
Group rewards should take priority over individual rewards	4.38	1.60

Appendix M

Means and Standard Deviations for Individualism/Collectivism Scale

Individualism/Collectivism: House et al., (2004)			
This questionnaire is answered on a 7-Point Likert scale, 1 equaling Strongly Disagree and 7 equaling Strongly agree.			
A higher score indicates a trend towards Collectivism, whereas a lower score indicates trend towards Individualism.			
	N	<i>M</i>	<i>SD</i>
	22	4.3	1.6
1. Group welfare is more important than individual rewards	5	2	2
2. Individuals should pursue their goals only after considering the welfare of the group	22	3.6	1.5
3. I focus on achieving societal goals more than individual accomplishments	1	5	5
	22	3.3	1.5
	4	6	7
	22	3.6	1.5
4. Group rewards should take priority over individual rewards	5	1	3

References

- Ban, T.A., Healy, D., & Shorter, E. (2004). Reflections on twentieth-century psychopharmacology. *Volume 4 of the series: The History of Psychopharmacology and the CINP, As Told in Autobiography*, 1-720.
- Baumann, T. (2004). Defining ethnicity. *The SAA Archaeological Record*, 12-14.
- Bayard-Burfield, L., Sundquist, J. & Johansson, S-E. (2001). Ethnicity, self reported psychiatric illness, and intake of psychotropic drugs in five ethnic groups in Sweden. *J Epidemiol Community Health*, 55(9), 657-664. PMID: 11511645
- Bender, D.S. & Skodol, A.E., Markowitz, J.C., Sanislow, C.A., Zanarini, M.C., Gunderson, J.G. & Daversa, M.T., Dyck, I.R., Shea, M.T. & Yen, S., Pinto, A, McGlashan, T.H., & Grilo, C.M. (2007). Ethnicity and Mental Health Treatment Utilization by Patients With Personality Disorders. *Journal of Consulting and Clinical Psychology*, 75(6), 992-999. doi: 10.1037/0022-006X.75.6.992
- Briones, D.F., Heller, P.L., Chalfant, P., Roberts, A.E., Aguirre-Hauchbaum, S.F., & Farr, W.F. (1990). Economic status, ethnicity, psychological distress, and readiness to utilize a mental health facility. *Am J Psychiatry*, 147(10), 1333-1340.
- Brown, J.D., Wissow, L.S., Zachary, C. & Cook, B.L. (2007). Receiving advice about child mental health from a primary care provider: African American and Hispanic parent attitudes. *Medical Care*, 45(11), 1076-1082.
- Brugha, T.S., Bebbington, P.E., Singleton, N., Melzer, D., Jenkins, R., Lewis, G., Farrell, M., Bhugra, D., Lee, A. & Meltzer, H. (2004). Trends in service use and treatment for mental disorders in adults throughout Great Britain. *The British Journal of Psychiatry*, 185, 378-385. doi: 10.1192/bjp.185.5.378.

- Chaudhry, I.B., Neelam, K., Duddu, V. & Husain, N. (2008). Ethnicity and psychopharmacology. *Journal of Psychopharmacology*, 22(6), 673-680. doi: 10.1177/0269881107082105.
- Cooper, L.A., Gonzales, J.J., Gallo, J.J., Rost, K.M., Meredith, L.S., Rubenstein, L.V., Wang, N-Y. & Ford, D.E. (2003). The acceptability of treatment for depression among African-American, Hispanic, and White primary care patients. *Medical Care*, 41(4), 479-489.
- Croghan, T.W., Tomlin, M., Pescosolido, B.A., Schnittker, J., Martin, J., Lubell, K. & Swindle, R. (2003). American attitudes toward and willingness to use psychiatric medications. *The Journal of Nervous and Mental Disease*, 191(3), 166-174. doi: 10.1097/01.NMD.0000054933.52571.CA.
- Diaz, E., Woods, S.W. & Rosenheck, R.A. (2005). Effects of ethnicity on psychotropic medications adherence. *Community Mental Health Journal*, 41(5), 521-538. doi: 10.1007/s10597-005-6359-x.
- Dorfman & Howell (1998) & House et al., (2004). Individualism/Collectivism scale.
- Drapeau, A., Boyer, R. & Lesage, A. (2009). The influence of social anchorage on the gender difference in the use of mental health services. *Journal of Behavioral Health Services & Research*, 36(3), 372-384. doi: 10.1007/s11414-009-9168-0.
- Dwight-Johnson, M. & Lagomasino, I. (2007). Addressing depression treatment preferences of ethnic minority patients. *General Hospital Psychiatry*, 29(3), 179-181. doi: 10.1016/j.genhosppsy.2007.02.
- Fillenbaum, G.G., Hanlon, J.T., Corder, E.H., Ziqubu-Page, T., Wall, W.E. & Brock, D.

- (1993). Prescription and nonprescription drug use among black and white community-residing elderly. *American Journal of Public Health*, 83(11), 1577-1582.
- Flaskerud, J.H. (2000). Ethnicity, culture, and neuropsychiatry. *Issues in Mental Health Nursing*, 22, 5-29.
- Givens, J.L., Houston, T.K., Van Voorhees, B.W., Ford, D.E. & Cooper, L.A. (2007). Ethnicity and preferences for depression treatment. *General Hospital Psychiatry*, 29(3), 182-191. doi: 10.1016/j.genhosppsych.2006.11.002.
- Gu, Q., Dillon, C.F. & Burt, V.L. (2010). Prescription drug use continues to increase: U.S. prescription drug data for 2007-2008. *NCHS Data Brief*, 42, 1-9.
- Hyman, S.E. (2013). Psychiatric drug development: diagnosing a crisis. *Cerebrum*, 1-11, <http://www.pubmedcentral.nih.gov/articlerender.fc>.
- Kaufman, D.W., Kelly, J.P., Rosenberg, L., Anderson, T.E. & Mitchell, A.A. (2002). Recent patterns of medication use in the ambulatory adult population of the United States: the Slone Survey. *The Journal of the American Medical Association*, 287(3), 337-344.
- Kessler, R.C., Brown, R.L. & Broman, C.L. (1981). Sex differences in psychiatric help-seeking: evidence from four large-scale surveys. *Journal of Health and Social Behavior*, 22(1), 49-64.
- Khalsa, S-R., McCarthy, K.S., Sharpless, B.A., Barrett, M.S. & Barber, J.P. (2011). Beliefs about the causes of depression and treatment preferences. *Journal of Clinical Psychology*, 67(6), 539-549. doi: 10.1002/jclp.20785
- Krumrei, E.J., Newton, F.B. & Kim, E. (2010). A multi-institution look at college

- students seeking counseling: nature and severity of concerns. *Journal of College Student Psychotherapy*, 24(4), 261-283. doi: 10.1080/87568225.2010.509223.
- Kuo, B. C., Kwantes, C. T., Towson, S., & Nanson, K. M. (2007). Social beliefs as determinants of attitudes toward seeking professional psychological help among ethnically diverse university students. *Canadian Journal of Counselling and Psychotherapy/Revue canadienne de counseling et de psychothérapie*, 40(4).
- Lambert, M., Conus, P., Eide, P., Mass, R., Karow, A., Moritz, S., Golks, D. & Naber, D. (2004). Impact of present and past antipsychotic side effects on attitude toward typical antipsychotic treatment and adherence. *European Psychiatry*, 19(7), 415-422. doi: 10.1016/j.eurpsy.2004.06.031.
- Leaf, P.J. & Bruce, M.L. (1987). Gender differences in the use of mental health-related services: a re-examination*. *Journal of Health and Social Behavior*, 28(2), 171-183.
- Malhotra, A.K., Murphy, G.H. & Kennedy, J.L. (2004). Pharmacogenetics of psychotropic drug response. *The American Journal of Psychiatry*, 161(5), 780-796.
- Marcus, J. & Le, H. (2013). Interactive effects of levels of individualism—collectivism on cooperation: a meta-analysis. *Journal of Organizational Behavior*, 34, 813-834. doi: 10.1002/job.
- Miller, M.J. (2006). Attitudes toward different formulations of psychotropic drugs: the view of patients and healthcare providers. *The American Journal of Drug Delivery*, 4(1), 33-41.
- McEvoy, J.P., Johnson, J., Perkins, D., Lieberman, J.A., Hamer, R.M., Keefe, R.S.E.,

- Tohen, M., Glick, I.D. & Sharma, T. (2006). Insight in first-episode psychosis. *Psychological Medicine*, 36(10), 1385-1393. doi: 10.1017/S0033291706007793
- Mojtabai, R. (2007). Americans' Attitudes Toward Mental Health Treatment Seeking: 1990-2003. *Psychiatric Services (Washington, D.C.)*, 58(5), 642-651. doi: 10.1176/appi.ps.58.5.642.
- Mojtabai, R. (2009). Americans' Attitudes Toward Mental Health Treatment Seeking: 1999-2006. *Psychiatric Services (Washington, D.C.)*, 60(8), 1015-1023. doi: 10.1176/appi.ps.60.8.1015.
- Mossakowski, K.N., Kaplan, L.M. & Hill, T.D. (2011). Americans' attitudes toward mental illness and involuntary psychiatric medication. *Society and Mental Health*, 1(3), 200-216. doi: 10.1177/2156869311431100.
- Norman, R.M.G., Malla, A.K., Verdi, M.B., Hassall, L.D. & Fazekas, C. (2004). Understanding delay in treatment for first-episode psychosis. *Psychological Medicine*, 34(2), 255-266. doi: 10.1017/S0033291703001119.
- Ojeda, V.D. & Bergstresser, S.M. (2008). Gender, Race-Ethnicity, and Psychosocial Barriers to Mental Health Care: An Examination of Perceptions and Attitudes among Adults Reporting Unmet Need*. *Journal of Health and Social Behavior*, 49, 317-334.
- Papadoulos, C., Foster, J. & Caldwell, K. (2013). 'Individualism-Collectivism' as an explanatory device for mental illness stigma. *Community Mental Health Journal*, 49(3), 270-280. doi: 10.1007/s10597-012-9534-x.
- Pescosolido, B.A., Perry, B.L., Martin, J.K., McLeod, J.D. & Jensen, P.S. (2007).

Stigmatizing attitudes and beliefs about treatment and psychiatric medications for children with mental illness. *Psychiatric Services*, 58(5), 613-618. doi:

10.1176/appi.ps.58.5.613.

Pincus, H.A., Tanielian, T.L., Marcus, S.C., Olfson, M., Zarin, D.A., Thompson, J. & Zito, J.M. (1998). Prescribing trends in psychotropic medications. *JAMA*, 279(7), 526-531. doi: 10.1001/jama.279.7.526.

Schnittker, J. (2003). Misgivings of medicine?: African Americans' skepticism of psychiatric medication. *Journal of Health and Social Behavior*, 44(4), 506-524.

Shavers, V.L., Bakos, A. & Shappard, V.B. (2010). Race, ethnicity, and pain among the U.S. adult population. *Journal of Health Care for the Poor and Underserved*, 21(1), 177-220. doi: 10.1353/hpu.0.0255.

Triandis, H.C. (2001). Individualism-collectivism and personality. *Journal of Personality*, 69(6), 907-921.

Velligan, D.I., Lam, F., Ereshefsky, L., & Miller, A.L. (2003). Perspectives on medication adherence and atypical antipsychotic medications. *Psychiatric Services*, 54(5), 665-667.

Antipsychotic Medications. (2004). Provided with permission from NIMH. Retrieved from:<http://www.medicinenet.com/script/main/art.asp?articlekey=26299&page=2>

Prescription Drugs. (2012). What is Prescription Drug Abuse. Retrieved from:

<http://www.drugabuse.gov/drugs-abuse/prescription-drugs>

DEA Museum & Visitors Center. (2007). Good Medicine, Bad Behavior: Drug Diversion

in America: *The History of Prescription Drugs*. Retrieved from:

http://www.goodmedicinebadbehavior.org/explore/history_of_prescription_drugs.html

2013 California Rules of Court. (2009). Retrieved December 5,

2013, from

http://www.courts.ca.gov/cms/rules/index.cfm?title=five&linkid=rule5_640

Ethnic and Racial Minorities & Socioeconomic Status. Retrieved December 5, 2013 from

the APA website: <https://www.apa.org/pi/ses/resources/publications/factsheet-erm.aspx>

FDA U.S. Food and Drug Administration. (2009). About FDA: This week in FDA

history – Oct. 26, 1951. Retrieved November 22, 2014 from

<http://www.fda.gov/AboutFDA/WhatWeDo/History/ThisWeek/ucm117875.htm>

United Kingdom Psychiatric Pharmacy Group (UKPPG). (2006). Drug attitude inventory

(DAI-30). Retrieved January 30, 2015 from <http://www.ukppg.org.uk/DAI-30.html>

U.S. Census Bureau. (2014). Selected population profile in the United States: 2014

American Community Survey 1-Year Estimates. Retrieved March 11, 2015 from

http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_1YR_S0201&prodType=table

