

Spring 5-2019

## **Patient-Perceived Stigma & Communication in Mental Healthcare: Predictors of Medication Adherence and Mental Health Outcomes**

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The University of Southern Mississippi

Patient-Perceived Stigma & Communication in Mental Healthcare: Predictors of  
Medication Adherence and Mental Health Outcomes

by

Cameron A. Cloud

A Thesis  
Submitted to the Honors College of  
The University of Southern Mississippi  
in Partial Fulfillment  
of Honors Requirements

April 2019



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## Abstract

Patients with mental illness often report feeling stigmatized by their mental healthcare providers, which may deter them from seeking care services altogether. Although workplace interventions can be implemented to reduce stigma, outcomes are limited and may not be long-lasting. The objectives of this study are to investigate which variables of interpersonal communication are significant predictors of medication adherence and mental health outcomes in patients with mental illness. This study surveyed 258 participants from the United States who were at least 18 years of age and reported seeing a mental healthcare provider and taking psychotropic medication within the past five years. Each respondent completed an online survey that involved the following measures: patient-perceived stigmatization, patient-physician communication, trust, satisfaction, medication adherence, and mental health outcomes. Responses suggested that the presence of patient-perceived stigma reveals statistically inverse relationships with patient-provider communication, trust, and satisfaction. Significant predictors of medication adherence included patient-perceived stigma, patient-provider communication, trust, and satisfaction. The only identified significant predictor for mental health outcomes was satisfaction. The responses to survey questions suggested patient-provider communication skills must be taught to mental health providers, leading to enhanced mental healthcare satisfaction and ultimately, improved care for patients treated for mental illness.

Key Words: patient-perceived stigma, patient-provider communication, patient trust, patient satisfaction, mental health outcomes, medication adherence, illness, healthcare

## **Dedication**

To my brother Cole D. Whaley (ΘA 428):

I would not have made it this far in the Honors College had it not been for you. Thank you for teaching me to live life to the fullest. I wish we could share this moment together.

Until we meet again...

Psalm 133:1

## Acknowledgements

I would like to take a moment to thank my academic and thesis advisor, Dr. Kathryn Anthony, for her guidance and encouragement throughout my college career. I would not be a Communication Studies major, nor would I be graduating in four years, had it not been for you. Thank you for your patience when helping me complete this Honors Thesis. Thank you for overcoming class conflicts and navigating course scheduling for my majors and minors. Your time, alone, means more than you know.

To my fiancé, McKenna Stone. Thank you for your constant love and support. We have completed our Honors College theses! I cannot wait to begin a new chapter of life with you, and I am thrilled for the memories we will make together.

Additionally, I pay special thanks to the faculty of The Honors College. Thank you for providing me with the tools to succeed while at Southern Miss and for preparing me to soar after graduation. The opportunities and growth that you provided helped me to discover my life passions and aspirations.

Sweet Home Southern Miss, and #SMTTTT!

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## List of Abbreviations

ADAA	Anxiety and Depression Association of America
ARMS	Adherence to Refills and Medications Scale
CCMH	Center for Collegiate Mental Health
DPCQ	Doctor-Patient Communication Questionnaire
DSM	Diagnostic and Statistical Manual of Mental Disorders
IRB	Institutional Review Board
MMAS-8	Eight-Item Morisky Medication Adherence Scale
MOS	Medical Outcomes Study
MTurk	Amazon Mechanical Turk
NIMH	National Institute of Mental Health
NSDUH	National Survey on Drug Use and Health
PSOSH	Perceptions of Stigmatization by Others Seeking Help
SAMHSA	Substance Abuse and Mental Health Services Administration
SPSS	Statistical Package for the Social Sciences
USM	University of Southern Mississippi
WHO	World Health Organization

## Chapter 1: Introduction

According to the World Health Organization (WHO), health is “...a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” (WHO, 2014). The domains of physical, mental, and social well-being are shown to correlate; however, little is known about how they truly influence one another (Ohrnberger, Fichera, & Sutton, 2017). Mental illnesses can impair one’s mental health, just as physical ailments can impair one’s physical health and overall well-being. Nationally, research shows that “one in five U.S. adults live with a mental illness (46.6 million in 2017)” (National Institute of Mental Health [NIMH], 2019, para. 1), and more than 40,000 Americans commit suicide annually (Twenge, Joiner, Rogers, & Martin, 2017). Suicide has become the second leading cause of death for young adults and adolescents and the fourth leading cause of death for middle-aged adults (NIMH, 2018).

Given its pervasiveness, mental illness has become a topic of concern for Americans, and some mental illnesses, such as depression, have continued to increase in prevalence in adult populations (Center for Collegiate Mental Health [CCMH], 2018). Unfortunately, many patients with mental illness do not seek treatment for their disorders (Shannon, Goldberg, Flett, & Hewitt, 2018). Stigmatization of mental illness that proliferates during healthcare encounters *partially* explains why 36% of Americans who battle serious mental illness do not seek treatment services (Substance Abuse and Mental Health Services Administration [SAMHSA], 2017).

Given these staggering statistics, physicians must be skilled communicators in mental healthcare. Shifts toward patient-centered care models require physicians to

provide their patients with comfortable environments for disclosure, to remain aware of their psychological, physical, and social needs, to express feelings of togetherness, and to involve them as active participants when determining treatment and care (Lee & Lin, 2010). An issue associated with integrated care models is diagnostic uncertainty, which has been shown to proliferate with mental illness (Pomare, Ellis, Churruca, Long, & Braithwaite, 2018). Psychological disorders often have symptoms that overlap with other diagnoses, and the Diagnostic and Statistical Manual of Mental Disorders (DSM) is regularly being revised as new findings emerge (Pomare et al., 2018). As a result, patients may feel uncertain about their formal diagnosis and may rate their overall communication experience as negative (Perkins, Ridler, Browes, Peryer, Notley, & Hackmann, 2018). The medium of communication (e.g., phone v. face-to-face), perceived physician sensitivity for disclosure, quality of assessment, time taken to diagnose, ability to express diagnoses, and patient expectations for diagnoses are qualities shown to influence degrees of diagnostic uncertainty experienced by patients (Perkins et al., 2018). When patients perceive their diagnoses as more socially acceptable, they will find it easier to accept (Perkins et al., 2018). Ultimately, using a holistic approach to collaborate with and care for individuals with mental illness can reduce feelings of uncertainty and stigmatization (Perkins et al., 2018).

Interactions among patients and their providers can be problematic if patients report encountering mental health stigma during those encounters. Patients have reported “feeling devalued, dismissed, and dehumanized” by their healthcare providers and society, and consequently, this fear of stigmatization makes them reluctant to access essential care services (Knaak, Mantler & Szeto, 2017, p. 111). These patterns and fears

of stigmatization become even more apparent among patients with severe mental illnesses (Fox, Smith, & Vogt, 2018). Recently, researchers have begun to clarify the ways stigma can create barriers to care (Knaak et al., 2017). Hurdles to treatment services for mental health patients, in part, proliferate from the conscious or unconsciously-driven discriminative behaviors and communicative displays enacted by healthcare workers and providers (Knaak et al., 2017). Thornicroft, Rose, and Mehta (2010) suggest that physicians are more likely to stigmatize mental health patients than other healthcare employees, and these negative attitudes may contribute to disparities in care. A healthcare provider's ability to communicate efficiently with patients is equally as meaningful as the health information being shared (Travaline, Ruchinkas, & D'Alonzo, 2005), and a focus on bettering patient-centered communication can improve health outcomes for patients (Stewart et al., 2000). These findings highlight the growing need for healthcare providers to work to become more skilled communicators with their patients (Duffy et al., 2004).

Although stigma-reducing interventions have been developed for mental health providers, consumer contact interventions are limited in reducing stigma, and additional research may reveal which variables are involved to maintain and maximize long-term impacts (Morgan, Reavley, Ross, Too, & Jorm, 2018). Primarily, qualitative measures have been used to study mental illness-related stigma alongside patient-provider encounters (Knaak et al., 2017, Morgan et al., 2018, Vistorte et al., 2018). Few studies have employed *quantitative* measures to understand the interplay between patient-physician communication and the perceptions of stigma experienced by mental health patients. Patient-perceived stigmatization during patient-provider encounters must be

studied more from patients' perspectives to better understand their lived experiences (Link & Phelan, 2001, Schulze & Angermeyer, 2003, Corrigan & Nieweglowski, 2019).

The goal of the current study is to investigate additional variables of patient-provider communication alongside patient-perceived stigma in patients battling mental illness. The variables investigated involved patient-perceived stigmatization, patient-provider communication, patient trust, patient satisfaction, and medication adherence. Ultimately, the researcher hopes to identify how different degrees of patient-perceived stigmatization correlate with a patient's reported medication adherence and mental health outcome. The current study has important implications to reveal how patient-provider relationships affect treatment adherence behaviors and patients' mental health outcomes; these findings could be useful to inform researchers and developers of stigma intervention programs that improve healthcare services for patients who battle mental illness.

## Chapter 2: Literature Review

### Patient-Perceived Stigma

Stigmatization involves “social, economic, and political power” that can be used to “label, stereotype, exclude... and discriminate” against others (Link & Phelan, 2001, p. 375, 377). Stigma is a multidimensional concept (Pattyn, Verhaeghe, Sercu, & Bracke, 2014), and labeling people for stigmatization is an issue that extends to one’s mental and physical health (Stangl et al., 2019). Refusing treatment for mental illness can negatively influence one’s overall health and well-being, as a result of mental health stigmatization (Corrigan, Druss, & Perlick, 2014). Stigma is not limited to the healthcare field, as researchers have considered that patients may feel stigmatized by their family members, friends, or the general public (Morgan et al., 2018). For the purposes of this study, the researcher investigated patient-perceived stigma associated with mental illness.

Erving Goffman suggested that stigmatization is experienced by people who are somehow excluded from society (Goffman, 1963). He presented stigma as an aspect of one’s social identity that involves the attributes and stereotypes associated with a person or group (Goffman, 1963). Stigma can be enacted internally, interpersonally, or institutionally by greater society through policy and law (Knaak et al., 2017). Self and public stigma are two factors that may discourage people with mental illness from seeking care services (Corrigan, 2004). Self-stigma reflects internal reactions that may occur when one feels that he or she is stigmatized, which results in low self-esteem, incompetence, or diminished ego (Corrigan, 2004); Public stigma involves external prejudices and reactions that proliferate as a result of stigma, which can include



criminalization, hindered job searches, or receiving sub-par healthcare services (Corrigan, 2004). Anne Stangl et al. have attested that stigma is a form of judgement that can involve “marking” others’ health conditions or social qualities and can lead to stereotyping, prejudice, and discriminatory behaviors that can influence access to healthcare services, quality of treatment services provided, and legal policies for affected populations (Stangl et al., 2019). Stangl et al. have begun to use “common domains and terminology,” to minimize chances of increasing feelings of stigmatization when interacting with patients (Stangl et al., 2019, p. 10). One of their recommended strategies is to eliminate the “‘us’ versus ‘them’” or “‘stigmatized’ from the ‘stigmatizer’” attitudes displayed with stigma research (Stangl et al., 2019, p. 3).

Power imbalance in healthcare is a critical issue, and patients who battle mental illness often do report feeling stigmatized by their providers (Knaak et al., 2017). Many stigma interventionist researchers in the mental healthcare field strive to find stigma-reducing techniques to guide and shape workplace intervention procedures to reduce stigma (Morgan et al., 2018); however, to develop such stigma-reducing techniques for mental healthcare facilities and their physicians would require theorists to become informed about the impact of stigma on the communication between patients and their healthcare providers (Morgan et al., 2018).

Patient-perceived stigma reflects if, or to what extent, a patient may feel stigmatized when interacting with his or her physician. The most similar concept to patient-perceived stigma that the researcher of this current study identified was the “Pygmalion effect” found in patients with dementia; this effect parallels the self-fulfilling prophecy, involving diminished expectations for life, abilities, and self-care (Love,

2016). Love predicted that a patient's degree of feeling stigmatized is affected by how well that patient communicates with and trusts his or her physician. Additionally, stigmatization is also affected by the patient's overall satisfaction with his or her appointments with a provider. The following section will detail the importance of the patient-provider relationship among mental health patients.

## **Patient-Provider Communication**

Patient-provider communication is the degree a physician interacts with a patient to strengthen a relationship, share health information, present treatment options, and involve the patient in decision-making (Sustersic et al., 2018). Patient-provider relationships have progressively shifted from the paternalistic models of the 18<sup>th</sup> and 19<sup>th</sup> centuries to more modern patient autonomous, "patient-centered" medical care models (Kaba & Sooriakumaran, 2007). Interpersonal verbal and nonverbal exchanges between doctors and their patients often involve describing symptoms and family health histories, evaluating treatment options, providing instructions for care, and displaying empathy (Ha & Longnecker, 2010). Ideally, the culmination of these information exchanges can drive clinical decision-making, improve patient health, and provide satisfactory healthcare experiences (Ha & Longnecker, 2010). Nonetheless, being a good listener, remaining attentive, being genuine, and upholding respect for privacy are a few additional dimensions of patient-provider communication (Sustersic et al., 2018).

Stigma in communication may manifest itself as disregarding one's concerns, sharing misleading information, displaying negative attitudes, and presenting socially distant behaviors (Vistorte et al., 2018), and "[stigma] may contribute to disparities in physical health care for persons with serious mental illness..." (Vistorte et al., 2018, p.

334). A provider's ability to communicate with his or her patients in mental healthcare settings is critical to providing patient-centered care and may influence the patient's perceived stigmatization. Given the importance of effective communication, patients with mental illness who experience higher degrees of doctor-patient communication may be less likely to report feeling stigmatized by their providers. Therefore, based on the existing scholarship, the first hypothesis is offered:

H1a: Patient-perceived stigma will result in a statistically significant inverse relationship with patient-provider communication.

## **Patient Trust**

Patient trust reflects the level of confidence a patient has that his or her provider is both reliable and will provide quality care (Chandra, Mohammadnezhad, & Ward, 2018). Trust involves a sense of assurance that the physician wants the best possible health outcomes for the patient and is a critical factor of communication known to influence health outcomes (Chandra et al., 2018). Trust involves "confidence and reliance" and "can be considered as either institutional trust or interpersonal trust" (Chandra et al., 2018, p. 2). Also known as therapeutic alliance, trust is a critical component for patient care, and patients must be confident that their providers will keep their best interests in mind (Birkhäuer et al., 2017). Just like patient-provider communication, trust often takes time to develop and can fluctuate during patient-physician encounters (Chandra et al., 2018). Measures of trust may include domains of loyalty and support, communication competence, truthfulness, and intent to protect health information (Hall et al., 2002).

Considering stigma, a patient's level of trust for his or her physician will likely reflect his or her patient-perceived stigma from provider encounters. Thus, patients with

mental illness who feel stigmatized will likely have less trust for their providers.

Therefore, based on existing information, a second hypothesis is offered:

H1b: Patient-perceived stigma will result in a statistically significant inverse relationship with patient trust.

## **Patient Satisfaction**

Patient satisfaction is the degree of fulfillment of one's hopes, expectations, and needs from the overall healthcare experience (Miglietta, Belessiotis-Richards, Ruggeri, & Priebe, 2018). Patient satisfaction appears to be studied less with stigma and more with patient trust and treatment adherence. Sanatinia et al. (2016) determined that relationship development can become difficult if patients regularly switch physicians; additionally, lower health outcomes and lower reported patient satisfaction levels may also occur. Chandra et al. (2018) suggest that as communication and patient trust increase, patient satisfaction increases similarly.

Mental illness stigma in healthcare can result from the physician displaying negative attitudes and behaviors through lack of awareness of unconscious bias, pessimism regarding potential for patient recovery, and a lack of competence or experience. These can culminate and lead to reduced quality of care or termination of the patient-provider relationship (Knaak et al., 2017). Reported satisfaction also improves with patient-centered care models (Lee & Lin, 2010) A patient's degree of satisfaction with his or her overall healthcare experience will reflect his or her patient-perceived stigma from provider encounters. Patients with mental illness who report lower satisfaction ratings are more likely to have felt stigmatized by their providers. Therefore, based on the existing scholarship, a third hypothesis is offered:

H1c: Patient-perceived stigma will result in a statistically significant inverse relationship with patient satisfaction.

## **Medication Adherence**

Medication adherence is defined as “The process by which patients take their medications as prescribed,” comprised of “initiation, implementation, and discontinuation” (Vrijens et al., 2012, p. 691). This reflects starting the medication regimen, taking the medication as prescribed, and stopping the prescription, respectively. The WHO defined adherence as “the extent to which a person’s behavior—taking medication, following a diet, and/or executing lifestyle changes—corresponds with agreed recommendations from a health care provider” (WHO, 2003, para. 5). With advancing patient-centered care models, the term “concordance” has been used to describe decision-making during healthcare encounters, where the doctor and patient will negotiate treatment regimens (Vrijens et al., 2012). If mutually agreed upon, the term “adherence” can be used, while “compliance” reflects a regimen that was enforced by the provider (Brown & Bussell, 2011). For this study, medication adherence will be investigated. A patient’s degree of adherence to medication and recommended practices from his or her provider reflects patient-perceived stigma from provider encounters.

Patients with mental illness who adhere to physician recommendations are less likely to report feeling stigmatized by their providers. Of 4,939 adult participants who took the National Survey on Drug Use and Health (NSDUH), 33% reported that they chose to evade care services for their mental health concerns because doing so “might cause their neighbors/community to have negative opinions, might have negative effects on their jobs, or they did not want others to find out” (SAMHSA, 2017, 8.55A). As

degrees of patient-centered care improve, medication adherence also improves (Chandra et al., 2018). Furthermore, as degrees of communication, patient trust, and patient satisfaction increase, patients are more likely to comply with medication regimens and adhere to medical advice (Chandra et al., 2018).

Causes for decreased medication adherence may be difficult to pinpoint. Although patient-related factors have the greatest influence, physician-related and healthcare-system related variables must also be considered (WHO, 2003). These variables include patient-centeredness and involvement in decision-making, health literacy, previous experiences with physicians and taking medication, socioeconomic statuses, severity of the disease, and access to healthcare support services (WHO, 2003). The WHO researchers suggested that patient-provider communication is a critical aspect for influencing medication adherence. Furthermore, patients who adhere to their physician's recommendations concerning their medications generally experience lower degrees of self-stigma. Further, medication adherence does not appear to vary by mental illness type (Kamaradova et al., 2016). Therefore, based on existing research findings, a fourth hypothesis is offered:

H1d: Patient-perceived stigma will result in a statistically significant inverse relationship with medication adherence.

## **Mental Health Outcome**

In 1954, the first Director-General of the WHO, psychiatrist Dr. Brock Chisholm, coined the phrase, "Without mental health there can be no true physical health" (Kolappa, Henderson & Kishore, 2013, p.3). The WHO considers mental health as, "A state of well-being in which every individual realizes [their] potential, can cope with the normal

stresses of life, can work productively and fruitfully, and is able to make a contribution to [their] community” (WHO, 2014). As noted previously, stigma can extend to both physical and mental health ailments (Stangl et al., 2019), and “one in five U.S. adults live with a mental illness (46.6 million in 2017)” (NIMH, 2019). Over 40 million (18.1%) have anxiety disorders, which can be readily treated and comprise the most common category of mental illness (Anxiety and Depression Association of America [ADAA], 2018). Despite treatment availability, only 36.9% of those with anxiety disorders seek treatment services (ADAA, 2018).

Anxiety, as it relates to the measures of this study, is defined as the “amount of time in [the] past month [that someone feels] very nervous, bothered by nervousness, tense, high strung, [has] difficulty calming down, [feels] rattled or upset, restless, [and] fidgety” (Hays, Sherbourne, & Mazel, 1995, p. 9). Psychological well-being is the “amount of time in [the] past month [that the patient has] been happy, enjoyed things, felt calm and peaceful, happy, satisfied, pleased, felt living was an adventure, felt cheerful, [felt] daily life [was] interesting, [felt] love relationships [were] full, felt loved, [and] felt close to people” (Hays et al., 1995, p. 9). A patient’s mental health outcome will reflect his or her degree of patient-perceived stigma from physician encounters. Patients with mental illness who have worse mental health outcomes are more likely to report feeling stigmatized by their providers.

Birkhäuer et al. (2017) conducted a large meta-analysis on patient trust and health outcomes. They noted, overall, data of larger studies suggested patient trust and *objective* reports of health statuses have moderate associations with one another. *Self-reported* health outcome reports have greater association with mental health statuses, but they are

limited. More objective measures involved variables, such as medication adherence and patient satisfaction (Birkhäuer et al., 2017). Overall, degrees of patient trust and communication among patients and their physicians do appear to have some connection to one's mental health and wellbeing. Therefore, based on existing scholarship, a fifth hypothesis is offered:

H1e: Patient-perceived stigma and mental health outcomes will reveal a statistically significant inverse relationship.

The current study also considers communication-related variables including patient-perceived stigma, patient-provider communication, patient trust, and patient satisfaction as potential predictors of medication adherence and reported mental health outcomes. Based on the preceding review of literature, the following research questions are offered:

RQ1: What communication variables are significant predictors of medication adherence in patients with mental illness?

RQ2: What communication variables are significant predictors of mental health outcomes in patients with mental illness?



## Chapter 3: Methodology

### Participants

The current study surveyed 258 participants from the United States who were at least 18 years of age and reported having seen a mental healthcare provider and taking psychotropic medication within the past five years. These participants completed a Qualtrix survey containing 77 items that inquired about their interactions with their mental health providers. Most respondents self-identified as being 25-34 or 35-44 years old ( $n = 120$ , 46.5%;  $n = 59$ , 22.9%), female ( $n = 174$ , 67.4%), heterosexual ( $n = 192$ , 74.4%), white ( $n = 197$ , 76.4%), having attended some college or attained a bachelor's degree ( $n = 61$ , 23.6%;  $n = 104$ , 40.3%) within the United States. Furthermore, the majority of participants reported some history of mental illness in their families ( $n = 174$ , 67.4%) and a previous diagnosis of at least one mental illness ( $n = 200$ , 77.5%). Appendix A presents additional demographic data collected for all participants.

### Participant Recruitment Process

Upon obtaining Institutional Review Board (IRB) approval (Appendix B) through the University of Southern Mississippi (USM), the researcher completed an Amazon Mechanical Turk (MTurk) project profile to link qualified participants to the informed consent form (Appendix C) and study questionnaire (Appendix D) loaded into Qualtrics. The researcher used MTurk to recruit participants from the United States. The project profile contained a brief description of the study's purpose and respondent qualification requirements.

The researcher offered a \$0.25 incentive to participants recruited through MTurk, who effortfully completed the survey and did not submit multiple survey responses. After following the weblink in MTurk to the survey in Qualtrics, each participant previewed the study consent form. Respondents were required to provide consent to participate before they could begin the survey. When the questionnaire was completed, the participant was asked to type a custom verification code into a dialogue box in Qualtrics. That participant also typed the identical code into the dialogue box provided on MTurk's project profile to be approved for compensation.

Respondents were compensated for participation, and their responses were included in the study results after being validated. The researcher used three survey monitoring techniques to ensure effortful responses were submitted. If a respondent submitted multiple surveys from an identical IP address, he or she did not qualify for compensation, and associated survey responses were voided accordingly. Survey submissions that were completed within 240 seconds or less were reviewed for effortful completion, and incomplete surveys were disregarded. Three items were added to the questionnaire to ensure participants were paying close attention to the survey. These questions were included at the beginning (Q4.14), middle (Q6.6), and end (Q8.10) of the survey, located in Appendix D. For example, Q4.14 is as follows: "The researcher of this study wants to ensure you're paying close attention. Please select the option 'possibly no' here to show you're paying attention." If two or more of these monitoring questions were answered incorrectly, the data was voided and excluded entirely from results, and these participants did not qualify for compensation through MTurk. All respondents remained anonymous throughout the recruitment process.

## Measurement Instruments

This researcher modified measurement tools (Hall et al., 2002, Hays et al., 1995, Hojat et al., 2011, Kripalani, Risser, Gatti, & Jacobson, 2009, Morisky, Ang, Krousel-Wood, & Ward, 2008, Sustersic et al., 2018, Vogel, Wade, & Aschman, 2009) to study patients in mental healthcare, including the following measures: patient-perceived stigma, patient-provider communication, patient trust, patient satisfaction, medication adherence, and mental health outcomes.

**Patient-perceived stigma.** Patient-perceived stigma was measured using a modified version of the Perceptions of Stigmatization by Others Seeking Help (PSOSH) scale, developed by Vogel et al. (2009), which was considered a good predictor of public stigma and self-stigma (Vogel et al., 2009). The modified scale measured patient-perceived stigmatization from their healthcare provider. Five items were measured using a 5-point Likert-type scale, which remained unmodified from the original study. Patients were asked, “If you sought mental health services, to what degree do you believe that the people you interact with would...” A few example items included the following: “react negatively to you?” and “think of you in a less favorable way?” Participants could respond as follows: 1 = Not at All, 2 = A little, 3 = Some, 4 = A lot, and 5 = A great deal. After the respondents read the instructions and reflected on their experiences, they answered the questions accordingly. The scoring reflected the mean sum of the five items, with a maximum score of five. Higher scores reflected higher degrees of patient-perceived stigma, while lower scores suggested patients felt less stigmatized by their mental health providers. Vogel et al. (2009) reported that the Cronbach’s alpha for this 5-item scale, unmodified, was  $\alpha = 0.88$  and differed slightly when considering respondents’

demographic factors such as ages and socioeconomic statuses. Results showed the Cronbach's alpha for this measure as  $\alpha = 0.928$ , which represents good internal consistency reliability.

**Patient-provider communication.** This variable refers to how well the patient feels the doctor communicated with him or her throughout the patient-physician interaction. This variable was measured using the Doctor-Patient Communication Questionnaire (DPCQ) (Sustersic et al., 2018), and it was modified for this study. With the original measure, patients were asked questions over the telephone by physicians. In the modified study, patients were told, "Reflecting on your latest experience with your mental health provider, please respond to the following statements below." The modified questionnaire consisted of 15 items, which included a 5-point Likert-type scale that ranged as follows: 1 = No, 2 = Possibly no, 3 = Maybe, 4 = Possibly yes, and 5 = Yes. A few example items included, "My provider examined me thoroughly" and "My provider involved me in decision-making." Scoring reflected the mean sum of the 15 items, with a maximum score of 5. Higher scores suggested greater degrees of communication among patients and their providers. This scale was selected for its high reliability. The creators of the DPCQ reported the Cronbach's alpha for this 15-item scale was  $\alpha = 0.89$  (Sustersic et al., 2018). The scale's reliability suggests it can effectively measure patient-physician communication from the patient's perspective. The researcher of this study determined that this measure was reliable, with a Cronbach's alpha of  $\alpha = 0.945$ .

**Patient trust.** Patient trust refers to a patient's degree of confidence in his or her provider. It reflects how a patient perceives his or her physician's reliability and desire to provide quality and affordable care, along with the belief that the physician

desires the best possible health outcomes for the patient. Respondents' trust in their providers was measured using The Wake Forest Physician Trust Scale developed by Hall et al. (2002). This survey was originally distributed over the telephone, and the name of each patient's respective physician was included for each question. The researcher of the current study modified the survey instructions to say, "Please answer how strongly you agree or disagree with the following statements." Example items included, "I completely trust my provider's decisions about which medical treatments are best for me" and "All in all, I have complete trust in my provider." The modified questionnaire consisted of 10 items, which included a 5-point Likert scale that ranged as follows: 1 = Strongly disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, and 5 = Strongly agree. Scoring reflected the mean sum of the 10 items, with a maximum score of 5. Three of the questions had to be reverse coded when scoring. Higher scores suggested greater degrees of trust among patients and their providers. The creators of the Wake Forest Physician Trust Scale reported the Cronbach's alpha was  $\alpha = 0.93$  (Hall et al., 2002). The scale's high reliability suggested it is a great tool to evaluate degrees of patient trust among patients and their providers. The researcher of this current study determined this measure was reliable, with a good internal consistency reliability of  $\alpha = 0.902$ .

**Patient satisfaction.** Patient satisfaction refers to the degree of fulfillment of a patient's hopes, expectations, and needs from the overall healthcare experience. The Patient Satisfaction Scale developed by Hojat et al. (2011) was modified and used to measure patients' satisfaction with their providers and overall healthcare experiences. The items were modified slightly, but new instructions were included, which read, "Please respond how strongly you agree or disagree with the following statements

below.” The modified questionnaire consisted of 10 items that included a 5-point Likert scale, which ranged as follows: 1 = Strongly disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, and 5 = Strongly agree. A few example items included, “I am satisfied with the level of care I have been getting from my provider,” and “My provider spends enough time with me.” Scoring reflected the mean sum of the 10 items, with a maximum patient satisfaction score of 5. Higher scores suggested greater patient satisfaction with their provider and overall healthcare experience. This scale was also selected for its brevity and reliability. The measurement tool’s creators reported that the Cronbach’s alpha for this 10-item scale, unmodified, was satisfactory at  $\alpha = 0.87$  (Hojat et al., 2011). The scale’s reliability suggested it was an effective tool to measure patient satisfaction. The researcher of this current study determined that this measure was reliable, with a Cronbach’s alpha of  $\alpha = 0.923$ .

**Medication adherence.** Medication adherence refers to the degree a patient believes he or she has followed their provider’s instructions when taking their medications. Items were selected from the Eight-Item Morisky Medication Adherence Scale (MMAS-8) (Morisky et al., 2008) and the Adherence to Refills and Medications Scale (ARMS) (Kripalani et al., 2009). Several additional questions were written to investigate medication adherence alongside patient-perceived stigma. In total, seven items measured medication adherence. The MMAS-8 was selected for its popularity and adaptability to study medication adherence in mental healthcare. The Cronbach’s alpha for the unmodified MMAS-8 had a satisfactory reliability of  $\alpha = 0.83$  (Morisky et al., 2008). The ARMS was chosen for its adaptability and ease of use for people across a

variety of literacy levels (Kripalani et al., 2009). The Cronbach's alpha for the unmodified ARMS had satisfactory reliability of  $\alpha = 0.814$  (Kripalani et al., 2009).

Respondents were instructed to answer each question based on their personal experiences with their prescribed psychotropic medication(s). The measurement tool was comprised by seven items and incorporated a five-point Linkert scale, which ranged as follows: 1 = Strongly disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, and 5 = Strongly agree. Scoring reflected the mean sum of the seven items, with a maximum patient satisfaction score of five. Question 7.4 was removed from study results because it showed a lower internal consistency reliability at  $\alpha = 0.808$ . The overall final measure was reliable, with a Cronbach's alpha of  $\alpha = 0.839$ .

**Mental health outcome.** Mental health outcome includes domains of anxiety and psychological well-being. The 15-item measure was derived from the 37-item RAND Corporation Mental Health Inventory, which was a part of the larger 116-question Medical Outcomes Study (MOS) survey (Hays et al., 1995), and it was modified for this study. The researcher of the current study selected questions to assess patient anxiety and psychological well-being. The 15 items were categorized into 3 separate sections by their associated scales. Participants were asked to reflect on their feelings from the past month. The instructions displayed for all three sections noted, "For each question, please select a number for the one answer that comes closest to the way you have been feeling during the past month."

Section one contained 11 questions with a 5-point Linkert-type scale, which ranged as follows: 1 = None of the time, 2 = A little of the time, 3 = Some of the time, 4 = Most of the time, and 5 = All of the time. Example items included, "How much of the time,

during the past month, have you felt calm and peaceful?” and “During the past month, how much of the time have you been a happy person?” Section two contained three questions with a five-point Linkert-type scale, which ranged as follows: 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Very often, and 5 = Always. Example items included, “During the past month, how often did you feel there were people you were close to?” and “During the past month, how often did you get rattled, upset, or flustered?” Section three contained a single question with a separate five-point Linkert-type scale. Participants were asked, “During the past month, how much of the time have you been happy, satisfied, or pleased with your personal life?” The related scale ranged as follows: 1 = Very dissatisfied, unhappy most of the time; 2 = Generally dissatisfied, unhappy; 3 = Not satisfied nor dissatisfied; 4 = Generally satisfied, happy; and 5 = Extremely happy, could not have been more satisfied or pleased. The items from the RAND MOS survey were modified from a 6-item to 5-item survey to parallel the other questionnaire sections, and the mean sum scoring was altered from 0-100 to 1-5, with a max score of 5. In the larger 116-question MOS questionnaire, blocks of questions were weighted differently when scoring; however, the specific items selected for this study were from the same block and were scored with the same weight in the larger study (Hays et al., 1995). Consequently, scoring methods for these items could easily be altered to parallel other scoring methods used for this study. Higher scores correlated with reduced anxiety and greater degree of psychological well-being (Hays et al., 1995). Reverse coding was employed for all questions except Q8.5, Q8.6, Q8.11, Q9.3, and Q9.4. The RAND MOS measure was selected for its overall reliability from a credible online health research database (Hays et al., 1995).nThe Cronbach’s alpha for the unmodified overall RAND 36-Item Health Survey was satisfactory at  $\alpha = 0.93$  for anxiety



and  $\alpha = 0.95$  for psychological well-being (Hays et al., 1995). Question 10.3 was removed from study results because it showed a low internal consistency reliability at  $\alpha = 0.6$ . Results for the 15 total items suggested good internal consistency reliability with a Cronbach's alpha of  $\alpha = 0.906$ .

## **Data Collection**

Participants who have sought treatment for mental health concerns were recruited to take an anonymous online questionnaire to understand how patient-provider communication influences their self-reported mental health. This study entailed a cross-sectional survey design, and the Qualtrics online survey platform contained the informed consent form and survey questions. Qualtrics was also used to collect and store respondents' survey responses. Once participants were recruited through MTurk's online crowdsourcing platform, participants completed the online questionnaire in Qualtrics. Qualtrics predicted the survey would take about 20 minutes for each participant to complete; however, the actual average time was about 10 minutes (~ 621.46 seconds), overall.

The survey asked participants to reflect on their interactions with mental health providers, overall healthcare experiences, and adherence to providers' treatment recommendations. No alternatives to survey participation were made available. Participants could skip questions or withdraw from the survey at any time; however, those who withdrew or did not complete an adequate portion of the survey did not receive an incentive, and their responses were not included in the analysis. Participants were ensured their personal information and identity would be kept anonymous.

The data was initially collected using Qualtrics. Access to the data remained on a password protected computer and in the Qualtrics survey software database. Once participant responses were collected, the data was analyzed through the Statistical Package for the Social Sciences (SPSS) Version 24. Following the analysis, the data files were saved onto a password-protected faculty computer in a locked office. Although the study presented minimal risk for respondents, the standard online consent form included information for patients experiencing depression and thoughts of suicide to call 911 for immediate help or to contact the National Suicide Prevention Lifeline for support.

## Chapter 4: Results

The following section details the findings of the current study.

### Hypothesis 1

Table 1 (below) summarizes the results. The Pearson's  $r$  was computed to evaluate the relationships among patient-perceived stigma and patient-provider communication, patient trust, patient satisfaction, medication adherence, and mental health outcome. Overall, there was a significant negative correlation between patient-perceived stigma ( $M = 2.4047$ ,  $SD = 1.12474$ ) and patient-provider communication ( $M = 3.9772$ ,  $SD = 0.80861$ );  $r = -0.341$ ,  $p = 0.01$ ,  $N = 257$ . Increases in patient-perceived stigma appear to accompany decreases in patient-provider communication. Second, there was a significant negative correlation between patient-perceived stigma ( $M = 2.4047$ ,  $SD = 1.12474$ ) and patient trust ( $M = 3.6252$ ,  $SD = 0.80346$ );  $r = -0.242$ ,  $p = 0.01$ ,  $N = 258$ . Increases in patient-perceived stigma accompany decreases in patient trust. Third, there was a significant negative correlation between patient-perceived stigma ( $M = 2.4047$ ,  $SD = 1.12474$ ) and patient satisfaction ( $M = 3.8876$ ,  $SD = 0.74191$ );  $r = -0.221$ ,  $p = 0.01$ ,  $N = 258$ . Increases in patient-perceived stigma are accompanied by decreases in patient satisfaction. Fourth, there was a significant positive correlation between patient-perceived stigma ( $M = 2.4047$ ,  $SD = 1.12474$ ) and medication adherence ( $M = 2.6725$ ,  $SD = 1.00832$ );  $r = 0.403$ ,  $p = 0.01$ ,  $N = 258$ . Increases in patient-perceived stigma were accompanied by increases in medication adherence. Finally, there was a non-significant negative correlation between patient-perceived stigma ( $M = 2.4047$ ,  $SD = 1.12474$ ) and mental health outcome ( $M = 2.9796$ ,  $SD = 0.70804$ );  $r = -0.120$ ,  $p = 0.054$ ,  $N = 258$ .

Increases in patient-perceived stigma were accompanied by decreases in mental health outcomes.

**Table 1.**  
*Correlations Between Variables of Patient-Perceived Stigma*

<b>Variable</b>	<b>Measure</b>	<b>Value</b>
<b>Patient-provider communication</b>	Pearson Correlation	-.341**
	Sig. (2-tailed)	.000
	N	257
<b>Patient Trust</b>	Pearson Correlation	-.242**
	Sig. (2-tailed)	.000
	N	258
<b>Patient Satisfaction</b>	Pearson Correlation	-.221**
	Sig. (2-tailed)	.000
	N	258
<b>Medication adherence</b>	Pearson Correlation	.403**
	Sig. (2-tailed)	.000
	N	258
<b>Mental Health Outcome</b>	Pearson Correlation	-.120
	Sig. (2-tailed)	.054
	N	258

*Note.* \*\*Correlation is significant at the 0.01 level (2-tailed)

## **Research Question 1**

To address the first research question, multiple regression analysis was conducted to test if patient-perceived stigma ( $M = 2.4016$ ,  $SD = 1.12583$ ), patient-provider communication ( $M = 3.9772$ ,  $SD = 0.80861$ ), patient trust ( $M = 3.6268$ ,  $SD = 0.80459$ ), and patient satisfaction ( $M = 3.8879$ ,  $SD = 0.74334$ ) significantly predicted patient medication adherence ratings ( $M = 2.6686$ ,  $SD = 1.00837$ ), where medication adherence was the dependent variable. The analysis revealed that all four variables were significant predictors, and they explained 12.2% of the variance ( $R^2 = 0.209$ ,  $F(4,252) = 17.886$ ,  $p <$

0.001, N = 257). Patient-perceived stigma ( $\beta = 0.325$ ,  $p = 0.000$ ), patient-provider communication ( $\beta = -0.237$ ,  $p = 0.024$ ), patient trust ( $\beta = -0.283$ ,  $p = 0.019$ ), and patient satisfaction ( $\beta = 0.326$ ,  $p = 0.007$ ) were significant predictors of patients' medication adherence ratings. Table 2 (below) summarizes the results.

**Table 2.**  
*Predictors of Medication Adherence Rating*

<b>Variable</b>	<b>Measure</b>	<b>Value</b>
<b>Patient-Perceived Stigma</b>	$\beta$	.325
	p	.000**
<b>Patient-Provider Communication</b>	$\beta$	-.237
	p	.024**
<b>Patient Trust</b>	$\beta$	-.283
	p	.019**
<b>Patient Satisfaction</b>	$\beta$	.326
	p	.007**
<b>Medication Adherence</b>	R <sup>2</sup>	.209
	F(4,252)	17.886

*Note.* N = 257; \*\*Significant predictor of medication adherence rating ( $p < 0.05$ )

## **Research Question 2**

To address the second research question, multiple regression analysis was conducted to test if patient-perceived stigma (M = 2.4016, SD = 1.12583), patient-provider communication (M = 3.9772, SD = 0.80861), patient trust (M = 3.6268, SD = 0.80459), and patient satisfaction (M = 3.8879, SD = 0.74334) significantly predicted patients' mental health outcome ratings (M = 2.9785, SD = 0.70919). The analysis revealed that three of the four variables were not significant predictors, and they all explained 7.5% of

the variance ( $R^2 = 0.075$ ,  $F(4,252) = 6.191$ ,  $p < 0.001$ ,  $N = 257$ ). Of the four predictors, only patient satisfaction ( $\beta = 0.280$ ,  $p = 0.032$ ) was a significant predictor of mental health outcome. Patient-perceived stigma ( $\beta = -0.075$ ,  $p = 0.245$ ), patient-provider communication ( $\beta = -0.108$ ,  $p = 0.341$ ), and patient trust ( $\beta = 0.089$ ,  $p = 0.495$ ) were not significant predictors of patients' mental health outcomes.

**Table 3.**  
*Predictors of Mental Health Outcome*

<b>Variable</b>	<b>Measure</b>	<b>Value</b>
<b>Patient-Perceived Stigma</b>	$\beta$	-.075
	p	.245
<b>Patient-Provider Communication</b>	$\beta$	-.108
	p	.341
<b>Patient Trust</b>	$\beta$	.089
	p	.495
<b>Patient Satisfaction</b>	$\beta$	.280
	p	.032**
<b>Mental Health Outcome</b>	$R^2$	.075
	$F(4,252)$	6.191

*Note.*  $N = 257$ ; \*\*Significant predictor of mental health outcomes ( $p < 0.05$ )

The findings of the current study include that there was not a significant correlation between patient-perceived stigma and mental health outcomes (Table 1). Similar to existing research, patient-perceived stigma, patient-provider communication, patient trust, and patient satisfaction were significant predictors of medication adherence; however, surprisingly, patient satisfaction was the only significant predictor of mental health outcomes. These findings are discussed in-depth below.

## Chapter 5: Discussion

Major findings of the current study include that patient-provider communication, patient trust, and patient satisfaction were inversely correlated with patient-perceived stigma (Table 1). As degrees of patient-provider communication increased, patient-perceived stigma decreased. Physicians who are competent communicators can reduce feelings of stigmatization among their patients; alternatively, those who are not competent communicators may increase perceptions of stigma in their patients. Vistorte et al. (2018) suggested that if physicians display positive attitudes, avoid socially distancing displays, and show intentionality during patient appointments, patients may feel less stigmatized. Competent communication is an avenue by which to reduce barriers created by stigmatization. Healthcare providers should pay closer attention to the ways they interact with patients in the realm of mental health, as they can have ramifications that extend beyond the medical encounter.

Second, as degrees of patient trust increased, patient-perceived stigma decreased. This relationship parallels emerging literature, as trust in one's physician has been suggested as a potential mediating variable for stigma and mental healthcare participation (Hammer, 2018). Mistrust in one's provider is a barrier to obtaining mental healthcare services. Thus, providers should be working to earn the trust of their patients. Third, as degrees of patient satisfaction increased, patient-perceived stigma decreased. Satisfaction positively correlates with a physician's degree of communicative competence (Clever, Jin, Levinson, & Meltzer, 2008). Again, if patients are satisfied with their provider and their level of care, they are less likely to perceive they have experienced stigma from

their provider. Thus, again, improved interactions with healthcare providers can ameliorate patient-perceived stigma.

One unexpected finding of the study was that medication adherence revealed a statistically significant positive correlation with patient-perceived stigma though the researcher hypothesized a negative relationship. Prior research has revealed a “statistically negative correlation between self-stigma and adherence to treatment in all diagnostic groups” (Kamaradova et al., 2016). One possible explanation for this unexpected finding may be related to the severity of mental illness exhibited by the patients in our study. For example, fears of stigma have been documented to increase with mental illness severity (Fox et al., 2018). As severity of mental illness increases, patients may report feeling they experience greater threats for stigmatization (Fox et al., 2018). Although the researcher suspected that severity of mental illness could be a mediating variable, researchers have suggested that medication adherence was inversely correlated with mental disorder severity (Kamaradova et al., 2016). The inherent limitations of using subjective, self-report instruments to measure medication adherence, including unspecified time frames, lack of causal understanding for nonadherence, pressure to provide socially desirable answers, and fears of stigmatization, may have resulted in this unforeseen finding (Sajatovic, Velligan, Weiden, Valenstein, & Ogedegbe, 2010).

Another unexpected finding of the study occurred when considering the predictor variables associated with mental health outcomes. Despite their trend toward significance, only one variable, patient satisfaction, was significant in predicting mental health outcomes. Physician Trust, patient-provider communication, and perceived stigma



were not statistically significant predictors. This finding is off, particularly because existing scholarship reveals that mental illness stigma creates barriers to care, resulting in poorer health outcomes (Knaak et al., 2017). One explanation for this finding is the mental health outcomes instrument is a more clinical measure from the RAND corporation; a less clinical measure may have been more appropriate in detecting relationships between variables. This finding could also reflect the limitations of self-reported mental health outcome measures (Sajatovic et al., 2010).

For *RQ1* variables, patient-perceived stigma, patient-provider communication, patient trust, and patient satisfaction were all statistically significant predictors of medication adherence for patients with mental illness (Table 2). For patients with mental health concerns, taking their medicines as directed is necessary for managing their conditions and keeping them on-track (Martin, Williams, Haskard, & DiMatteo, 2005). These findings suggest that for mental health patients to adhere to their medication regimens, they need to have trust in their provider, experience satisfaction in their overall healthcare, and engage in positive patient-provider communication with their mental health provider. Existing scholarship reveals that trust in one's provider is "significantly related to decreased apprehension and increased willingness to take psychiatric medications" (Parcesepe & Cabassa, 2013, p. 15). These findings reiterate how important it is for providers to be skilled communicators.

For *RQ2*, patient satisfaction was the only statistically significant predictor of mental health outcomes (Table 3). It was surprising that patient-perceived stigma was not a predictor of mental health outcomes. A significant inverse relationship did not exist between patient-perceived stigma and mental health outcomes (Table 1), so it was not

surprising to find that patient-perceived stigma was not a significant predictor of mental health outcomes. Patient-perceived stigma, patient-provider communication, and patient trust were all insignificant predictors of mental health outcome (Table 3). Previous literature recognizes the negative impact of individuals' perceived stigma on their health outcomes, specifically increasing the likelihood they may experience depression (Budhwani & De, 2019). However, the current study did not appear to parallel existing research concerning stigma and mental health outcomes, despite the role of perceived stigma in clinical outcomes in other studies (Chandra et al., 2018, Martin et al., 2005). The findings of the current study support existing scholarship concerning patient satisfaction. However, a more in-depth analysis may reveal that the relationship between mental health outcomes and patient-perceived stigma is either moderated or mediated by some latent variable(s). Future inquiries should consider this possibility.

Nonetheless, participants' survey responses illustrated that a provider's communication skill level is an important component for administering effective patient-centered care. Patient-provider communication skills must be taught to providers to enhance mental healthcare satisfaction and ultimately, patient care. These skills can be taught early throughout medical school and residency programs. Stigma is learned "explicitly and implicitly" by physicians (Dubin, Kaplan, Graves, & Ng, 2017). While stigmatizing behaviors may be learned at any point during an individual's life, stigma can especially be enacted in the medical encounter during physician shadowing experiences, where medical students observe physicians' behaviors (Dubin et al., 2017). Stigma reduction interventions are essential to change these behaviors and to combat this stigmatization in mental healthcare. Interventionists can incorporate communication

education during these sessions to enhance providers' interpersonal skills and reduce stigmatizing behaviors.

## **Limitations and Future Directions**

Some of the limitations of the current study included generalizability resulting from the sample size. If additional respondents participated in this study, other predictors of mental health outcomes may have revealed statistical significance. Future research could help determine if additional variables may mediate predictors of mental health outcomes. Additionally, given the topic of this survey, fear of stigmatization and pressures to report socially desirable answers may have also influenced answers from study participants.

In the future, researchers should examine the development of skills-based training programs in medical school, residency, and in the workplace to improve communication skills and to make providers aware of the impacts of stigma. Physicians should actively work to reduce feelings of stigmatization among their patients. Researchers should clarify how improved patient-provider communication can actively reduce feelings of stigmatization. Furthermore, researchers should reveal how various psychotropic medications and perceptions of one's mental illness severity can influence perceptions of stigma and communication. More in-depth analyses can reveal how latent variables may moderate or mediate relationships among medication adherence and mental health.

## **Chapter 6: Conclusion**

Stigma within patient-provider interactions creates barriers to accessing mental healthcare services. This study was significant in exploring patient-perceived stigma and showing that a physician's ability to communicate with patients can significantly influence a patient's medication adherence. The data obtained from participants' survey responses showed variables of patient-provider communication, patient trust, patient satisfaction, and medication adherence have significant relationships with patient-perceived stigma. Predictors of medication adherence rating and mental health outcomes were explored, and results were discussed alongside findings from previous literature. Patient-perceived stigma, patient-provider communication, patient trust, and patient satisfaction were significant predictors of medication adherence rating, while patient satisfaction was the only significant predictor of mental health outcomes. Ultimately, communication skills need to be taught to physicians early-on and during workplace interventions, which can ultimately help reduce feelings of stigma that surround mental health.

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## Appendices

### Appendix A - Participant Demographic Information

*Demographic characteristics of all participants (N = 258)*

<b>Characteristic</b>	<b>N</b>	<b>%</b>
<b>Age Group</b>		
18-24	29	11.2
25-34	120	46.5
35-44	59	22.9
45-54	30	11.6
55-64	19	7.4
65 and older	1	0.4
Missing	0	0
<b>Gender</b>		
Female	174	67.4
Male	82	31.8
Other	2	0.8
Missing	0	0
<b>Sexual Orientation</b>		
Bisexual	47	18.2
Gay	3	1.2
Lesbian	8	3.1
Straight/Heterosexual	192	74.4
Queer	4	1.6
Questioning	1	0.4
Other	3	1.2
Missing	0	0
<b>Race</b>		
White	197	76.4
Black or African American	16	6.2
American Indian	1	0.4
Hispanic or Latino	14	5.4
Asian or Pacific Islander	21	8.1
Two or more races	9	3.5
Missing	0	0
<b>Highest Education Attained</b>		
Primary school	0	0

Some high school	3	1.2
High school diploma or GED	19	7.4
Some college	61	23.6
Associate's degree (Two-year college degree)	28	10.9
Bachelor's degree (Four-year college degree)	104	40.3
Graduate level degree (Masters, Ph.D., JD, MD, etc.)	42	16.3
Other	1	0.4
Missing	0	0

**Marital Status**

Single never married	102	39.5
Married	118	45.7
Widowed	3	1.2
Separated	5	1.9
Divorced	30	11.6
Missing	0	0

**Annual Gross Income**

0-\$10,000	28	10.9
\$10,000-\$24,999	46	17.8
\$25,000-\$49,999	86	33.3
\$50,000-\$99,999	79	30.6
\$100,000-\$249,999	17	6.6
\$250,000 +	2	0.78
Missing	0	0

**Region of the United States**

Midwest	63	24.4
Northeast	46	17.8
Southeast	71	27.5
Southwest	32	12.4
West	46	17.8
Other	0	0
Missing	0	0

**Self-Reported Mental Health Outcome Rating**

Excellent	31	12
Somewhat good	57	22.1
Average	62	24
Somewhat poor	82	31.8
Poor	25	9.7
Not sure	1	0.4
Missing	0	0

**History of Mental Illness in Family**

Yes	174	67.4
No	59	22.9
Not sure	25	9.7
Missing		

**Previously Diagnosed with a Mental Illness**

Yes	200	77.5
No	58	22.5
Missing	0	0

# Appendix B - IRB Approval Letter

2/8/2019

IRB-18-214 - Initial: Sacco Committee Letter - Expedited and Full

Reply all | Delete Junk | ...

## IRB-18-214 - Initial: Sacco Committee Letter - Expedited and Full

irb@usm.edu

Today, 10:15 AM

Cameron Cloud; Kathryn Anthony; HC Keystone

Reply all |

Inbox

**Office of  
Research Integrity**



118 COLLEGE DRIVE #5125 • HATTIESBURG, MS | 601.266.6576 | USM.EDU/ORI

### NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident template on Cayuse IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.

PROTOCOL NUMBER: IRB-18-214

PROJECT TITLE: The role of stigma in doctor-patient communication and health outcomes in patients with mental disorders

SCHOOL/PROGRAM: School of ASBEES, School of COMM

RESEARCHER(S): Cameron Cloud, Kathryn Anthony

IRB COMMITTEE ACTION: Approved

CATEGORY: Expedited

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.



2/8/2019

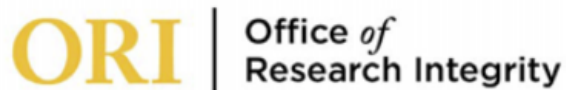
IRB-18-214 - Initial: Sacco Committee Letter - Expedited and Full

 Reply all |   Delete Junk |  ...



Donald Sacco, Ph.D.  
Institutional Review Board Chairperson

## Appendix C - Standard Consent Form



### INSTITUTIONAL REVIEW BOARD STANDARD (ONLINE) INFORMED CONSENT

<b>STANDARD (ONLINE) INFORMED CONSENT PROCEDURES</b>
<p>The Project Information and Research Description sections of this form should be completed by the Principal Investigator before submitting this form for IRB approval. Use what is given in the research description and consent sections below when constructing research instrument online.</p>
<small>Last Edited July 20<sup>th</sup>, 2017</small>

Today's date: February 25, 2019		
<b>PROJECT INFORMATION</b>		
Project Title: The role of stigma in doctor-patient communication and health outcomes in patients with mental disorders		
Principal Investigator: Cameron Cloud	Phone: 601-550-1237	Email: cameron.cloud@usm.edu
College: Arts & Sciences	Department: Communication Studies	
<b>RESEARCH DESCRIPTION</b>		
<p><b>1. Purpose:</b></p> <p>These researchers aim to understand how variables of doctor-patient communication influence health outcomes in the field of mental health. We are recruiting individuals of diverse backgrounds who recall being seen within the past five years by a mental health provider for their mental health and who are taking/took medications for their symptoms. Gathered data will be analyzed, reported, and published as an undergraduate Honors College thesis, which will be presented at scholarly conferences to further improve the understanding of doctor-patient communication. These research findings will help mental health doctors provide better care for their patients.</p>		
<p><b>2. Description of Study:</b></p> <p>If you agree to participate in this cross-sectional study, you will be provided access to an online, multiple choice questionnaire through Qualtrics. This survey contains 99 items that inquire about your interactions with providers, health statuses, feelings, adherence to recommended treatment practices, and satisfaction with your overall healthcare experiences. There are no "right" or "wrong" answers, and this online survey should take no longer than 20 minutes to complete. Our goal for this study is to recruit between 100-125 participants. No restrictions on normal activities or invasive techniques are used in this study, and participants will remain completely anonymous.</p>		
<p><b>3. Benefits:</b></p> <p>All participants will contribute their reflections and experiences to the fields of healthcare and interpersonal communication, and subsequent research findings will help mental health doctors provide better care for their patients. Beyond helping better understand the role of patient-provider communication, little benefit will be direct.</p>		
<p><b>4. Risks:</b></p> <p>You may consider some of the questions about your life or health experiences as sensitive. This risk was minimized through multiple choice surveying methods employed to minimize possibilities for distress,</p>		

alongside efforts to keep your identity entirely anonymous. Participants who experience depressed thoughts should seek treatment from mental health professionals, and if you experience/are experiencing thoughts of suicide, dial 911 for immediate medical assistance or call the National Suicide Prevention Lifeline at 1-800-237-8255, which is free, confidential, and provides 24/7 support.

**5. Confidentiality:**

The records of this study will be kept private, and we assure you that your responses are anonymous and cannot be traced back to you. No personally identifiable information is captured unless you voluntarily offer personal or contact information in any comment field listed as "other (please specify)" in the demographic portion of the survey. These comment fields are not intended to gather any identifiable information. Your responses are combined with those of many other participants, which will be summarized and reported, and the data files will be saved onto a password-protected faculty computer to further protect your anonymity.

**6. Alternative Procedures:**

This study involves one online questionnaire through Qualtrics. No alternatives to participation will be made available to protect participant anonymity. Participants may choose to skip questions or withdraw from the survey at any time.

**7. Participant's Assurance:**

This project has been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations.

Any questions or concerns about rights as a research participant should be directed to the Chair of the IRB at 601-266-5997. Participation in this project is completely voluntary, and participants may withdraw from this study at any time without penalty, prejudice, or loss of benefits.

Any questions about the research should be directed to the Principal Investigator using the contact information provided in Project Information Section above.

**CONSENT TO PARTICIPATE IN RESEARCH**

Consent is hereby given to participate in this research project. All procedures and/or investigations to be followed and their purpose, including any experimental procedures, were explained to me. Information was given about all benefits, risks, inconveniences, or discomforts that might be expected.

The opportunity to ask questions regarding the research and procedures was given. Participation in the project is completely voluntary, and participants may withdraw at any time without penalty, prejudice, or loss of benefits. Unless described above and agreed to by the participant, all personal information is strictly confidential, and no names will be disclosed. Any new information that develops during the project will be provided if that information may affect the willingness to continue participation in the project.

Questions concerning the research, at any time during or after the project, should be directed to the Principal Investigator with the contact information provided above. This project and this consent form have been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5116, Hattiesburg, MS 39406-0001, 601-266-5997.

## **Appendix D - Stigma in Patient-Provider Communication Survey**

### **Start of Block: Section 1**

#### **Consent To Participate In Research**

By selecting "Yes" below, consent is hereby given to participate in this research project.

All procedures and/or investigations to be followed and their purposes, including any experimental procedures, were explained to me. Information was given about all benefits, inconveniences, or discomforts that might be expected.

Select "Yes" if you consent to this study, and then click the "next" arrow. (Clicking the "next" arrow to continue will not allow you to advance to the study, unless you have selected "Yes" in the box indicating your consent.)

If you do not wish to consent to this study, please close your browser window at this time.

No

Yes

### **End of Block: Section 1**

---

### **Start of Block: Section 2**

**INSTRUCTIONS: Please respond to the following questions below.**

Q2.2 What is your age?

- 18 to 24 years
- 25 to 34 years
- 35 to 44 years
- 45 to 54 years
- 55 to 64 years
- Age 65 or older

Q2.3 What is your gender?

- Female
  - Male
  - Other (please specify)
- 

Q2.4 What is your sexual orientation?

- Bisexual
  - Gay
  - Lesbian
  - Straight / Heterosexual
  - Queer
  - Questioning
  - Other (please specify)
-

Q2.5 Which of the following racial groups best describes you?

- White
- Black or African American
- American Indian
- Hispanic or Latino
- Asian or Pacific Islander
- Two or more races

Q2.6 What is the highest level of education you have attained?

- Primary school
  - Some high school
  - High school diploma or GED
  - Some college
  - Associate's degree (2-year college degree)
  - Bachelor's degree (4-year college degree)
  - Graduate level degree (Masters, Ph.D., JD, MD, etc.)
  - Other (please specify)
- 

Q2.7 What is your marital status?

- Single never married
- Married
- Widowed
- Separated
- Divorced

Q2.8 Please mark your annual gross income.

- 0 to \$10,000
- \$10,000 to \$24,999
- \$25,000 to \$49,999
- \$50,000 to \$99,999
- \$100,000 to \$249,999
- \$250,000 +

Q2.9 Which region of the country do you live in?

- Midwest – IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI
  - Northeast – CT, DC, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VT
  - Southeast – AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV
  - Southwest – AZ, NM, OK, TX
  - West – AK, CA, CO, HI, ID, MT, NV, OR, UT, WA, WY
  - Outside of the United States (please specify)
- 

Q2.10 Overall, how would you rate your mental health?

- Excellent
- Somewhat good
- Average
- Somewhat poor
- Poor
- Not sure

Q2.11 Is there a history of mental illness in your family?

- Yes
- No
- Not sure

Q2.12 Have you ever been diagnosed with a mental illness before?

- Yes
- No

End of Block: Section 2

---

Start of Block: Section 3

**INSTRUCTIONS: Please respond to the following for the questions below.**

**If you sought mental health services, to what degree do you believe that the mental health provider you interact with would...**

**1 = Not at all    2 = A little    3 = Some    4 = A lot    5 = A great deal**



Q3.2 React negatively to you?

Q3.3 Think bad things of you?

Q3.4 See you as seriously disturbed?

Q3.5 Think of you in a less favorable way?

Q3.6 Think you posed a risk to others?

End of Block: Section 3

---

Start of Block: Section 4

**INSTRUCTIONS: Reflecting on your latest experience with a mental health provider, please respond to the following statements below.**

**1 = No   2 = Possibly no   3 = Maybe   4 = Possibly yes   5 = Yes**

- Q4.2 My provider listened carefully to me during the consultation.
- Q4.3 My provider allowed me to talk without interrupting me.
- Q4.4 My provider encouraged me to express myself/talk.
- Q4.5 My provider examined me thoroughly.
- Q4.6 I feel that my provider understood me.
- Q4.7 I easily understood what my provider said.
- Q4.8 I feel my provider gave me all the necessary information.
- Q4.9 My provider explained the advantages and disadvantages of the treatment or care strategy.
- Q4.10 My provider involved me in decision-making.
- Q4.11 In my opinion, my provider had a reassuring attitude and way of talking.
- Q4.12 I think my provider was, in general, respectful.
- Q4.13 My provider made sure that I understood his/her explanations and instructions.
- Q4.14 The researcher of this study wants to ensure you're paying close attention. Please select the option "possibly no" here to show you're paying attention.
- Q4.15 I think my provider told the whole truth.
- Q4.16 I have confidence in my provider.
- Q4.17 My provider replied to all my concerns and expectations.

End of Block: Section 4

---

Start of Block: Section 5

**INSTRUCTIONS: Please answer how strongly you agree or disagree with the following statements below.**

**1 = Strongly disagree   2 = Disagree   3 = Undecided   4 = Agree   5 = Strongly agree**

Q5.2 My provider will do whatever it takes to get me all the care I need.

Q5.3 Sometimes my provider cares more about what is convenient for him or her than about my medical needs.

Q5.4 My provider's medical skills are not as good as they should be.

Q5.5 My provider is extremely thorough and careful.

Q5.6 I completely trust my provider's decisions about which medical treatments are best for me.

Q5.7 My provider is totally honest in telling me about all of the different treatment options available for my condition(s).

Q5.8 My provider thinks about what is best for me.

Q5.9 Sometimes my provider does not pay full attention to what I am trying to tell him or her.

Q5.10 I have no worries about putting my life in my provider's hands.

Q5.11 All in all, I have complete trust in my provider.

**End of Block: Section 5**

Start of Block: Section 6

**INSTRUCTIONS: Please respond how strongly you agree or disagree with the following statements below.**

**1 = Strongly disagree   2 = Disagree   3 = Undecided   4 = Agree  
5 = Strongly agree**

- Q6.2 I am satisfied with the level of care I have been getting from my provider.
- Q6.3 My provider explains the reason(s) for any medical test.
- Q6.4 My provider explains things in a way that is easy for me to understand.
- Q6.5 I am confident in my provider's knowledge and skills.
- Q6.6 The current survey has not asked me any questions concerning my mental health.
- Q6.7 My provider respects my opinion(s).
- Q6.8 My provider listens carefully to me.
- Q6.9 My provider really cares about me as a person.
- Q6.10 My provider encourages me to talk about my health concerns.
- Q6.11 My provider spends enough time with me.
- Q6.12 I would like my provider to be present in any medical emergency situation.

End of Block: Section 6

---

Start of Block: Section 7

**Instructions: You indicated that you are taking medication for your mental health.**

**Individuals have identified several issues regarding their medication-taking behavior, and we are interested in your experiences. There is no right or wrong answer.**

**Please answer each question based on your personal experience with your psychotropic (mental health) medication(s).**

**1 = Strongly disagree   2 = Disagree   3 = Undecided   4 = Agree   5 = Strongly agree**

Q7.2 I sometimes forget to take my medication prescribed by my mental health provider.

Q7.3 I have cut back and stopped taking my medication because it has made me feel worse.

Q7.4 If I have stopped taking my medicine, I have told my mental health provider.

Q7.5 When I believe that my condition is under control, I sometimes stop taking my medicine.

Q7.6 I find that taking my medicine is inconvenient.

Q7.7 I sometimes miss scheduled mental health provider's appointments.

Q7.8 I sometimes miss scheduled therapy sessions.

End of Block: Section 7

---

Start of Block: Section 8

**INSTRUCTIONS:** These questions are about how you feel and how things have been with you during the past month.

For each question, please select a number for the one answer that comes closest to the way you have been feeling during the past month.

1 = None of the time    2 = A little of the time    3 = Some of the time    4 = Most of the time    5 = All of the time

Q8.2 During the past month, how much of the time have you generally enjoyed the things you do?

Q8.3 How much of the time, during the past month, has your daily life been full of things that were interesting to you?

Q8.4 During the past month, how much of the time have you felt loved and wanted?

Q8.5 How much of the time, during the past month, have you been a very nervous person?

Q8.6 During the past month, how much of the time have you felt tense or "high-strung?"

Q8.7 How much of the time, during the past month, have you felt calm and peaceful?

Q8.8 During the past month, how much of the time did you feel that your love relationships, loving and being loved, were full and complete?

Q8.9 During the past month, how much of the time has living been a wonderful adventure for you?

Q8.10 During the past month, the researcher of this survey wants to ensure you're paying attention. Please select "some of the time" as your response to this question.

Q8.11 During the past month, how much of the time have you felt restless, fidgety, or impatient?

Q8.12 During the past month, how much of the time have you been a happy person?

Q8.13 How much of the time, during the past month, have you felt cheerful, lighthearted?

End of Block: Section 8

---

Start of Block: Section 9

**INSTRUCTIONS:** These questions are about how you feel and how things have been with you during the past month.

For each question, please select a number for the one answer that comes closest to the way you have been feeling during the past month.

1 = Never   2 = Rarely   3 = Sometimes   4 = Very often   5 = Always

Q9.2 During the past month, how often did you feel there were people you were close to?

Q9.3 During the past month, how often did you get rattled, upset, or flustered?

Q9.4 How often during the past month did you find yourself having difficulty trying to calm down?

End of Block: Section 9

---

Start of Block: Section 10

**INSTRUCTIONS:** This question is about how you feel and how things have been with you during the past month.

For this question, please select a number for the one answer that comes closest to the way you have been feeling during the past month.



Q10.2 During the past month, how much of the time have you been happy, satisfied, or pleased with your personal life?

- Very dissatisfied, unhappy most of the time
- Generally dissatisfied, unhappy
- Not satisfied nor dissatisfied
- Generally satisfied, happy
- Extremely happy, could not have been more satisfied or pleased

Q10.3 How much have you been bothered by nervousness, or your "nerves," during the past month?

- Bothered all of the time, to the point where I could not take care of things
- Bothered most of the time
- Bothered some of the time
- Bothered a little of the time
- Not bothered at all

**End of Block: Section 10**

---