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## **The Usage and Impact of Outpatient Commitment Orders on Suicide and Suicide Attempt Rates in Mississippi**

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THE USAGE AND IMPACT OF OUTPATIENT COMMITMENT ORDERS ON  
SUICIDE AND SUICIDE ATTEMPT RATES IN MISSISSIPPI

by

Sam Mauldin

A Dissertation  
Submitted to the Graduate School,  
the College of Nursing and Health Professions  
and the School of Leadership and Advanced Nursing Practice  
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for the Degree of Doctor of Philosophy

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## ABSTRACT

Rates of self-harm and suicide in the United States have not decreased since 1980 and remained relatively constant through the start of the 21<sup>st</sup> Century. The most recent data indicate that suicide rates in the United States have risen by about 2% a year from 2006 through 2016, although suicide rates have decreased in other countries during the same timeframe. Finding a viable intervention to slow rates of self-harm and suicide is needed in the United States. The need for closer patient observation has been cited as an underutilized intervention for the reduction of attempts of self-harm and suicide. This study examined one intervention used to facilitate closer observation of at-risk patients to decrease rates of self-harm and suicide. The study used a survey developed by the researcher for Mississippi psychiatrists and psychiatric-mental health nurse practitioners (PMHNP) to ascertain the degree of use, and effectiveness of, outpatient commitments (OPC) as an intervention for suicide prevention. Results from 23 respondents indicated that for a sample of 5821 patients, OPC was used for 411 patients. Paired sample t-tests were performed with a 0.05 significance level. A statistically significant difference was found in the average number of attempts of self-harm between the patients where OPC was used and those where OPC was not used (1.09 (SD = 2.308) vs. 14.95 (SD = 15.849),  $p < .001$ ). A statistically significant difference was also found in the average number of completed suicides between those two groups (0.00 (SD = 0.000) vs. 1.61 (SD = 1.305),  $p < .001$ ).

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## LIST OF ABBREVIATIONS

<i>CDC</i>	Centers for Disease Control and Prevention
<i>IRB</i>	Institutional Review Board
<i>MBON</i>	Mississippi Board of Nursing
<i>MSBML</i>	Mississippi State Board of Medical Licensure
<i>NIMH</i>	National Institute of Mental Health
<i>OPC</i>	Outpatient Commitment
<i>PMHNP</i>	Psychiatric-Mental Health Nurse Practitioner
<i>SI</i>	Suicidal Ideation
<i>USM</i>	The University of Southern Mississippi

## CHAPTER I – INTRODUCTION

### Background

Suicide has consistently been a leading cause of death in the United States for many decades (Centers for Disease Control and Prevention [CDC], 2016). According to the CDC (2016), the number of deaths due to suicide in the United States has risen from 26,869 in 1980 to 42,773 in 2014. The total U.S. population estimates rose from between 226 and 227 million in 1980 to over 320 million by the end of 2014 (U.S. Census Bureau, 2015). The steady rise in the United States population over those three and a half decades was mirrored by a rise in the overall number of deaths due to suicide during this same timeframe. Information from the CDC (2017) indicates that the suicide death rates in the United States consistently numbered between 12 and 13.0 deaths per each 100,000 of the resident population for more than three decades. The only year having a suicide death rate below 12 deaths per 100,000 residents between 1980 and 2014 was the year 2000 (CDC, 2016). All other years during the timeframe between 1980 and 2014 have between 12 and 13.4 suicide related deaths per 100,000 U.S. residents (CDC, 2016). This information shows that for several decades, the death rate due to suicide in the United States remained largely unchanged despite any attempts at the improvement and implementation of suicide interventions and prevention strategies during the same timeframe. Recent data shows that suicide rates in the United States are now on the rise, increasing by about 2% per year from 2006-2016, despite the fact that suicide rates decreased in other countries during the same timeframe (Hedegaard, Curtin, & Warner, 2018).

Prior research has suggested that patients who have previously attempted suicide have a higher likelihood of having future suicide attempts than the general population. Additionally, the likelihood of a reattempt is highest during the first year after inpatient psychiatric hospitalization (Appleby et al., 1999; Kan, Ho, Dong, & Dunn, 2007). Research suggests that patients who are hospitalized for self-harm or suicidal ideation (SI) have a greater risk of future attempts of self-harm after discharge from an inpatient psychiatric setting. Although patients with a history of SI or self-harm are at increased risk during the entire first year after discharge, that risk is even greater during the first three months and is greatest during the first month after discharge. Data from this study suggests that the more recently patients with a history of SI or self-harm have discharged from an inpatient setting, the greater their risk of self-harm (Chidchanok et al., 2011; Kan et al., 2007). Kan and colleague's (2007) research asserted that up to 38% of all suicides occurring within the first year following an inpatient psychiatric discharge occur within the first month of this 12-month period. A patient's age, gender, or epidemiological characteristics did not seem to be important factors in explaining this higher concentration of post-inpatient treatment suicides (Kan et al., 2007).

Completely abandoning treatment-related contact with patients discharging from inpatient mental health treatment settings when they are at the highest risk for re-attempting suicide, then, seems counterintuitive. Conversely, more frequent outpatient contact between a mental health provider and a patient following discharge from an inpatient psychiatric setting seems to decrease incidences of suicide reattempts (Bernet, 2013; Ghanbari, Malakouti, Nojomi, & Khaleghparast, 2016).

One way to ensure that patients who are at the highest risk for self-harm maintain contact with mental health providers after discharge from an inpatient setting is through the use of coercive treatments like the outpatient commitment (OPC) process. Coercive treatments, as a whole, are ethically controversial and extensively debated due to the paternalistic nature of coercion that can limit, or disregard, patient autonomy, and may or may not comply with the expressed will of the patient (Sjostrand & Helgesson, 2008). OPC is a coercive treatment method that uses orders written by a psychiatrist or nurse practitioner, along with the legal system, to require high-risk individuals to maintain compliance with treatment when not in an inpatient setting.

The outpatient commitment process usually occurs after a patient has been hospitalized in an inpatient psychiatric setting through the involuntary commitment process. Upon discharge from the inpatient facility, the patient signs documents stating that they agree to follow the outlined outpatient treatment plan for the duration of the OPC order. Compliance with treatment can include medication compliance, submission to laboratory tests, and mandatory attendance at talk therapy treatments (Player, 2015). Treatment plans for medications may involve taking oral or injectable medications, including taking injections of long-acting medications that maintain a presence in the patient's system for several weeks after the medication has been administered. Laboratory tests may include submitting to periodic urinalysis or blood draws to ensure that medication levels stay within therapeutic ranges. Keeping scheduled appointments may include individual or group talk therapy sessions. Failing to meet any of the criteria of the OPC agreement or showing signs that the individual has once again become a

danger to themselves or others expedites the patient's return to an inpatient psychiatric treatment setting, which then transforms the involuntary outpatient commitment into an involuntary inpatient commitment. Involuntary inpatient commitments are normally referred to simply as involuntary commitments (Reisner, Slobogan, & Rai, 2009).

The involuntary commitment process is a coercive treatment method that hospitalizes a patient in an inpatient setting regardless of whether the individual agrees to treatment. In cases where involuntary commitment is used, the individual governed by the commitment must be shown to be an acute danger to themselves or others or lack the mental decision-making capacity to provide themselves with necessary food, clothing, shelter, or medical care. Each state has laws that govern coercive treatments and involuntary psychiatric care. Similarities usually exist in the involuntary commitment processes from one state to the next. However, specific criteria for commitment, the language used in the commitment order, and the duration of time that an individual may be hospitalized without consent vary from state to state (Reisner et al., 2009).

#### Problem Statement

The purpose of this quantitative study is to examine survey results submitted by Mississippi psychiatrists and psychiatric-mental health nurse practitioners (PMHNP) to determine if psychiatrists and PMHNPs in Mississippi are using the outpatient commitment process as a tool for suicide prevention, and if so, whether the use of OPC seems to show any correlation with self-harm and suicide rates. A possible relationship between the use of OPC and rates of self-harm and suicide would warrant further research into the effectiveness and increased use of OPC as a tool for suicide prevention.

Finding a viable intervention to decrease suicide rates is of interest to the mental health community across the United States, as suicide rates that had remained constant for several decades are now on the rise despite a myriad of attempted interventions (Hedegaard et al., 2018).

Despite the efforts of modern mental health professionals, suicide death rates in the United States remained relatively constant over several decades and are now on the rise (CDC, 2016; Hedegaard et al., 2018). The reasons behind our inability to slow suicide rates in the United States may be multifaceted. One possibility is that an effective suicide treatment may have yet to be discovered. Conversely, a case could be made that one or more currently available treatments with adequate effectiveness are being underutilized.

The need for closer patient observation is often cited as an available, but under-implemented, preventive factor associated with reattempts at suicide (Appleby et al., 1999; Bernet, 2013). Ending inpatient mental health treatment too early may be one factor that contributes to the high rates of suicide attempts seen following discharge from a mental health setting (Appleby et al., 1999). Additionally, the abrupt change in the level of observation a patient receives when transitioning from the 24-hour care and observation provided during inpatient hospitalization to the significantly decreased, or even nonexistent, observation post-discharge may contribute to the high rate of suicide reattempts that occur in the months immediately following discharge from an inpatient program (Appleby et al., 1999). The utility of involuntary outpatient commitments has been documented in several areas of mental health treatment (Swartz, Bhattacharya,

Robertson, & Swanson, 2017; Torrey & Zdanowicz, 2001). Research on the OPC process has shown that the utilization of OPC significantly decreased the number rehospitalizations and incarcerations patients experience, as well as the need for restraint or seclusion during times requiring hospitalization (Zanni, Stavis, & March, 2006). Another study revealed that OPC increased treatment compliance by up to 80% (Torrey & Zdanowicz, 2001). Outpatient commitment has been explicitly recommended by some prior research as a tool to combat suicide (Torrey & Zdanowicz, 2001). Despite this assertion, little data has been compiled that demonstrates a correlation between the use of OPC and rates of self-harm or suicide.

The need for an individual to be a threat to themselves or others is, in most cases, a requirement of the state laws that govern the commitment and outpatient commitment processes (Torrey & Zdanowicz, 2001). The need for an individual to be under closer observation is often cited as a reason for mental health professionals' inability to intervene quickly enough to prevent suicide attempts (Appleby et al., 1999). The outpatient commitment process allows mental health care providers to have closer and more frequent contact with high-risk individuals and facilitates an expedited rehospitalization process for individuals who are in crisis and in need of an immediate intervention (Zanni et al., 2006). The ability of the outpatient commitment process to expedite the transition of an individual from an outpatient setting to an inpatient mental health setting may show that the use of the involuntary outpatient commitment process could be a useful tool in the prevention of suicide reattempts. Further exploration of the



use of OPC as a suicide prevention intervention is needed to examine the involuntary outpatient commitment process' effectiveness at decreasing rates of self-harm and suicide.

### Research Questions

This study was guided by two questions. Do Mississippi psychiatrists and PMHNPs use the outpatient commitment process as a suicide prevention intervention for patients who are at risk of self-harm? Is there any relationship between the use of the outpatient commitment process and rates of self-harm and suicide?

### Significance of the Study

Suicide death rates in the United States remained relatively constant over several decades and have now risen over the last several years despite the availability of a multitude of treatments and interventions (CDC, 2016; Hedegaard et al., 2018). Mental health nursing and the broader mental health community have failed to make a significant impact on suicide death rates in the United States for nearly 40 years (CDC, 2016). Researchers have argued that some existing suicide prevention methods have not shown their true potential for minimizing suicide death rates because of underutilization (Torrey & Zdanowicz, 2001). Maintaining an increased level of patient observation has been specifically mentioned in previous research as an often-underused intervention for suicide prevention amongst high-risk populations (Appleby et al., 1999). One controversial, and often-underused, tool that is approved for use in 47 states and the District of Columbia, which helps to maintain closer patient-provider contact for individuals with a high risk for suicide is the outpatient commitment process. This research sought to find an existing,

but underutilized, viable suicide prevention intervention by examining OPC's impact on rates of self-harm and suicide. If a negative correlation is found between the implementation of the outpatient commitment process and rates of self-harm and suicide, then mental health nursing and the broader mental health community may be able to increase the quality of life for high-risk patients by decreasing the need for future inpatient hospitalizations through the use of OPC. More importantly, the wider implementation of OPC may help save lives among many patients who are at the highest risk for attempting suicide (Zanni et al., 2006).

### Theoretical Framework

This quantitative, correlational study used Ray's Theory of Bureaucratic Caring as its theoretical framework. Ray's theory contains what she refers to as the nine major concepts of caring. These nine concepts are caring, spiritual-ethical, educational, physical, socio-cultural, legal, technological, economic, and political. Significant assertions of Ray's theory that are pertinent to this study are included in the caring, socio-cultural, legal, and political aspects of caring. The caring aspect of Ray's theory includes the relationship between charity and the right action. Ray states that caring is a response to human suffering and need. Ray asserts that caring should consider justice and what should be done. The social-cultural aspect of caring includes communication, social interaction, support, community, and society. The legal aspect of caring includes responsibility and accountability. In Ray's theory policies guide behaviors of caring. Ray's theory also asserts that political, governance, and power structures within health care influence decision making. (Ray & Turkel, 2010).

The legal and political aspects of Ray's theory relate well to this study because this research examined a coercive intervention that can require a court order. The use of OPC may infringe on a patient's autonomy and right to refuse treatment, but OPC may be exactly what an individual patient needs to help get them through a time of crisis and keep them alive (Sjostrand & Helgesson, 2008). Ray's assertion that nurses need to consider justice in our actions means that we should do what is right for our patients (Ray & Turkel, 2010). The researcher's assertion is that an intervention implemented for the sole purpose of maintaining our patients' survival advocates for justice and is the right thing to do, even if the justice of that decision is not clear to the patient themselves when the decision is being made. Because policies guide caring behaviors and power structures influence decisions, when a viable intervention for suicide prevention is found, healthcare policy and legislation must support that intervention to maximize its life-saving capabilities.

### Operational Definitions

This research was conducted with several operational definitions to define the measurements used in the study. Suicide was defined as the intentional and voluntary taking of one's own life (Dictionary.com, n.d.). Self-harm was defined as the intentional and voluntary act of physically harming one's self not resulting in death. Suicidal ideation was defined as an individual's contemplation of and desire to commit suicide. OPC was defined as the legally defined outpatient commitment process per Mississippi legislation.

## Assumptions

This research was conducted under several assumptions. Because suicide has been a major health concern in the United States for many decades and because suicide rates have been rising in the United States at a rate of about 2% each year since 2006, this research assumed that suicide and self-harm will continue to be major health concerns the United States in the future (Hedegaard, Curtin, & Warner, 2018). Because talk therapy, inpatient treatment, and other suicide prevention interventions have been effective at preventing suicide for some individuals, this research assumed that outpatient suicide prevention interventions have the potential to affect rates of self-harm and suicide. Because psychiatrists and PMHNPs are required to meet a baseline of professional knowledge requirements through education and licensing, this research assumed that licensed psychiatrists and PMHNPs in Mississippi had at least some knowledge and awareness of the existence of OPC and its availability as a possible suicide prevention intervention. Because contact information lists were obtained through the official licensing boards for psychiatrists and PMHNPs, this research assumed that the survey letters and emails sent to the addresses provided reached their intended recipients. Because psychiatrists and PMHNPs are expected to maintain a professional code of ethics, this research assumed that respondents would complete the surveys honestly and accurately. Finally, this study assumed that reality is objective and that the results of the research could be replicated because this research was qualitative (Kaplan, 2004).

## Limitations

This research was limited by the design of the study. The participant sample was not a true random sample as it was limited to only licensed Psychiatrists and PMHNPs in Mississippi. Because this study was correlational, any relationship found between the use of OPC and rates of self-harm and suicide cannot be assumed to be causal.

Responses were limited to those willing to respond to the survey and relied on those selected as potential respondents to volunteer to complete the survey questions.

Recruitment emails to PMHNPs may have been automatically directed to spam folders instead of email inboxes, or the emails may have been dismissed or deleted without being opened. Another limitation of this anonymous survey is that the researcher has no way to definitively know who actually completed the submitted surveys. Although links were mailed and emailed to the addresses listed as official contact information by the Mississippi State Board of Medical Licensure (MSBML) and Mississippi Board of Nursing (MSBON), once the letters and emails containing survey links were sent the researcher was left to trust that it was only the intended recipients who accessed the survey links. Finally, this research is limited because the researcher never personally reviewed patient records. The researcher relied on the truthfulness and accuracy of respondent data.

## Scope

The scope of this study included occurrences of attempted self-harm and completed suicide by patients who were already receiving mental health treatment from a licensed Mississippi psychiatrist or PMHNP. This study examined the occurrences of

attempted self-harm and suicide for patients under the care of licensed Mississippi psychiatrists and PMHNPs within the previous two-years from when the potential respondent received the survey. This study included occurrences of self-harm and suicide for Mississippi mental health patients who were on OPC and Mississippi mental health patients who were not on OPC.

#### Delimitations

Because this study used a survey intended for Mississippi psychiatrists and PMHNPs, this study did not include occurrences of self-harm or suicide by individuals who were not already under the care of a licensed Mississippi psychiatrist or PMHNPs. To limit respondent burden, this study did not include any occurrences of self-harm or suicide prior to the previous two years from when respondents received the survey. Due to the differences in mental health legislation between states, the number of psychiatrists and PMHNPs, and the cost and time involved with compiling a respondent list with valid contact data, this study did not include psychiatrists or PMHNPs licensed in states or territories outside of Mississippi.

#### Summary

Despite all attempts at prevention and intervention, suicide death rates in the United States remained relatively constant for several decades and are now on the rise (CDC, 2016; Hedegaard et al., 2018). Prior research has suggested that patients who have previously attempted suicide have a higher likelihood of having future suicide attempts than the general population (Appleby et al., 1999). One of the highest risk timeframes for follow-on suicide attempts is during the 12 months directly following a patient's

discharge from inpatient mental health treatment for a suicide attempt (Appleby et al., 1999; Chidchanok et al., 2011; Kan et al., 2007). Research suggests that maintaining close contact with mental health services on an outpatient basis during this critical 12-month timeframe may decrease the rate of suicide attempts for this high-risk population (Appleby et al., 1999). One way to ensure that patients who have undergone inpatient mental health treatment for attempted suicide maintain contact with mental health services after discharge from inpatient treatment are through the use of the OPC. This study examined the degree of usage of the involuntary outpatient commitment process by psychiatrists and PMHNPs as a suicide prevention intervention and OPC's effectiveness at decreasing rates of self-harm and suicide for high-risk patients in Mississippi.

## CHAPTER II – REVIEW OF THE LITERATURE

A comprehensive literature review was conducted regarding outpatient commitment and suicide prevention by searching keywords and phrases including suicide prevention, outpatient commitment, involuntary outpatient commitment, suicide reattempt prevention, suicide reattempt, secondary suicide prevention, tertiary suicide prevention, OPC, and coercive treatment. Both traditional and online sources were used during the literature review. The comprehensive literature review included books, peer-reviewed journal articles, response letters, and other research documents. The University of Southern Mississippi's online library database search engine was utilized to maximize the results of keyword and phrase searches. Internet databases search included ABI/INFORM Complete, Academic Search Premier, CINAHL, EBSCOhost, MEDLINE/Pubmed, PsycARTICLES, Psychology and Behavioral Sciences Collection, PsycINFO, Research Library Prep, and Social Sciences Citation Index. A total of 40,999 sources were found. Subtotals of resources that populated for individual search headings are as follows: outpatient commitment 939, suicide prevention 29,630, suicide prevention methods 521, OPC 7,843, involuntary outpatient commitment 326, suicide reattempt 97, suicide reattempt prevention 5, secondary suicide prevention 98, tertiary suicide prevention 28, coercive treatment 1512.

The review of the literature provided background research to support the study of the effectiveness of using the involuntary outpatient commitment process as a tool to prevent suicide attempts in individuals who were previously hospitalized in an inpatient behavioral health facility for a suicide attempt. A solid foundation of research supporting



a study on the use of OPC as a suicide prevention intervention was especially important given the sometimes-contentious debate surrounding the ethical implications of using involuntary, or coercive, treatment interventions including involuntary outpatient commitments. OPC, along with the inpatient psychiatric commitment process, and the 72-hour hold process are commonly known as coercive treatment methods (Galon & Wineman, 2010). OPC offers mental health patients more freedom and flexibility than traditional involuntary court commitments resulting in admission to an inpatient setting. An argument can also be made that the use of OPC extends the government's intrusion into patient lives well past any time spent in an institutional setting (Galon & Wineman, 2010).

The goal of OPC is to ensure treatment compliance while improving the quality of life for patients by allowing treatment to continue in a less restrictive outpatient setting, rather than a more restrictive inpatient setting. To this end, research has shown that the use of OPC can reduce rates of both rehospitalizations and violence, but no treatment method is 100% effective. Is OPC more effective at treating certain types of mental illnesses than others? Psychosis describes an array of mental health conditions where there has been a loss of contact with reality (National Institute of Mental Health [NIMH], 2019). Even if OPC is suited for patients with certain types of psychoses, that does not guarantee its suitability for patients at risk for self-harm or suicide. Several studies have examined aspects of the effectiveness of OPC in terms of rehospitalization rates. Multiple articles were also found that explored various aspects of the broader topic of suicide prevention, including differing methods and schools of thought. Because of the serious

nature of the illnesses being treated, and the consequences that treatment is attempting to prevent, knowing the effectiveness of OPC can help us decide if the ends justify the means.

Chapter II includes a systematic literature review on both outpatient commitments and suicide prevention methods. The literature review contains an overview of OPC and suicide prevention as a whole, the rationales for and against the use of OPC, and information pertaining to gaps in the literature. A gap in the literature linking the use of OPC as an intervention targeted specifically at preventing self-harm and suicide was found. Many articles discussed the efficacy of OPC in regard to rehospitalization rates, length of hospitalizations, incarceration rates, and treatment compliance. Some research mentioned that one of the original goals of the implementation of involuntary outpatient commitments was to deter patients from committing self-directed harm but did not follow up with data showing to what degree this goal has been met (Hiday, Swartz, Swanson, Borum, & Wagner, 2002). One study cited OPC specifically as a way of deterring interpersonal violence (Swartz et al., 2017). Other research asserts that OPC can improve medication compliance, which in turn decreases the occurrence “homelessness, incarceration, violence, and suicide” (Torrey & Zdanowicz, 2001, p. 338). This article goes on to link the benefits to the patient and society in relation to maintaining medication compliance, and while later paragraphs elaborate on how medication compliance helps in decreasing rates of homelessness, incarceration, and violence, no data is provided on how OPC decreases violent acts in general, and no further discussion is made, or data provided, relating to OPC, medication compliance, and the prevention of

suicide. Although decreases in self-directed and other-directed violence are repeatedly cited as a benefit of OPC, the associated empirical data to accompany these statements is far less prevalent in much of the published research encountered throughout the literature review.

### OPC Overview

Currently, 47 states and the District of Columbia use some form of outpatient commitment process, though the actual name for the process in place and the laws that govern the process vary greatly from state to state (Treatment Advocacy Center, 2018). OPC is a process that involves court-ordered community-based treatment for those with mental illness or repeated hospitalizations in mental health facilities (Swartz et al., 2017). Court orders for OPC require high-risk individuals to maintain compliance with treatment programs, including taking medications, talk therapy treatments, as well as providing blood and urine samples to verify compliance with treatment (Player, 2015). The ability of OPC to facilitate outpatient compliance with medications and talk therapy is significant because the two primary causes of rehospitalization for psychiatric patients is thought to be lack of medication compliance and lack of insight into illness (Nakhost, Perry, & Frank, 2012).

Ensuring medication compliance can entail periodic visits to clinics to receive long-acting injections, require the patient to submit to blood draws, or urinalyses. Compulsory talk therapy, attendance at day programs or in-home visits by a treatment team may also be required (Player, 2015). This study's interest in the use of OPC lies in the fact that, from the origination of its implementation, one of the stated primary goals

of the use of OPC was violence prevention. Violence prevention in patients with severe mental illness includes committing violent acts against either themselves or others (Hiday et al., 2002). This study concerns itself with the self-directed violence and suicide attempts, and the ability of OPC to prevent this self-directed violence.

The outpatient commitment process is classified as a coercive treatment method (Galon & Wineman, 2010). Coercive treatments require that individuals comply with prescribed treatments even if it against the individual's wishes. The right to refuse treatment is revoked when coercive treatments are employed. OPC is a coercive treatment method because individuals who fall under the umbrella of an outpatient commitment are court-ordered to comply with its requirements for treatment. Failure to follow any of the court-ordered aspects of care can result in the consequence of involuntary commitment at an inpatient mental health facility (Kahan, Braman, Monahan, Callahan, & Peters, 2010; Player, 2015). Coercive mental health treatments, including involuntary OPC, have been used with increasing frequency within the current theoretical frameworks and practice of modern western psychiatric care (Galon & Wineman, 2010). Evidence supports OPC's effectiveness in improving medication compliance and decreasing the number and frequency of inpatient hospitalizations for certain types of patients. However, self-directed violence, including suicide, continues to occur on a frequent basis among patients known to have acute mental illnesses (Ganz, Braquehais, & Sher, 2010).

Because of the coercive nature of OPC, the ethical justification of the use of OPC has been debated intensely. The public discussion continues on where the line should be

drawn between the justifiable use of OPC to facilitate treatment compliance versus its potential as a paternalistic government intrusion into the personal freedom of patients (Riley, Hoyer, & Lorem, 2014). One of the most important factors in determining mental health treatment outcomes across all diagnoses, treatment settings, and treatment types is the relationship between a patient and therapist. Coercive treatments affect the relationship between therapists and patients because they can cause mistrust of the therapist by the patient, thereby, skewing the patient's perception of the therapeutic relationship (Theodoridou, Schlatter, Ajdacic, Rossler, & Davis, 2012).

Another aspect of the ethical debate surrounding the use of coercive treatments such as OPC is that in most cases, healthcare treatment is voluntary and requires explicit or implied consent from the patient (Galon & Wineman, 2010). Society has long accepted a deviation from the principle of consent in the case of inpatient psychiatric commitments in cases where an individual may be an immediate threat to themselves or others or is acutely psychotic and lacks the capacity for logical decision making. However, the circumstances change in the case of OPC. OPC is court-ordered not because an individual is acutely psychotic or as much of an immediate threat to themselves or others, as in the case of inpatient hospital commitment, but because of the perceived increased risk of relapse and expected benefits of in-person follow up contact, usually after a certain degree of inpatient mental health stabilization has occurred (Galon & Wineman, 2010). Looking at OPC through this lens, some researchers and patients feel as though OPC is a violation of a patient's right to privacy and autonomy, and infringes on their basic freedoms as a citizen (Stensrud, Hoyer, Beston, Granerud, & Landheim, 2016). In this

vein, OPC could be likened to proactively punishing an innocent individual in criminal court when no crime has been committed simply because we suspect that they may have the propensity and capacity to commit a crime at some point in the future. Other criticisms assert that OPC feeds on and inflames the stigmas already surrounding mental illness and help to promote the popular fallacy that the mentally ill commit a significantly higher rate of violent acts than the population as a whole (Link, Castille, & Stuber, 2008).

Conversely, some researchers endorse the use of OPC because of the increased freedom and quality of life that is afforded to individuals who might otherwise be forced into confinement during an involuntary inpatient hospital commitment (Swanson, Swartz, Elbogen, Wagner, & Burns, 2003). Researchers advocating for the use of OPC cite numerous patient indicators as evidence that OPC is a useful, necessary, and viable mental health treatment intervention. Two major indicators cited are the increased time periods between inpatient hospitalizations and the increased time periods between mental health condition exacerbations that the use of OPC helps to facilitate. Also cited are OPC's ability to facilitate increased treatment compliance, and decreased incidences of homelessness, incarcerations, and violent behavior. Furthermore, researchers cite OPC's ability to facilitate an improvement in the patient's overall quality of life compared to inpatient commitment (Swanson et al., 2003).

### OPC Legislation

In the United States, 47 of the 50 states and the District of Columbia have passed laws allowing some form of involuntary outpatient commitment, though the criteria and requirements of these laws can vary greatly (Treatment Advocacy Center, 2018). The

debate over the use of OPC centers around individual rights versus government control and intrusion for the benefit of society. Areas of debate surrounding the use of OPC also include the increased autonomy and quality of life OPC affords patients when compared to involuntary inpatient commitment, and the efficacy, or lack thereof, of OPC in achieving its stated goals (Sjostrand & Helgesson, 2008). Any coercive, court-ordered treatment with punitive consequences infringes on the individual's autonomy as a citizen. Because OPC is a coercive treatment method, where to draw the line between the use of OPC and respecting the rights of individual citizens has been debated for decades and may never reach a consensus conclusion. One of the popular arguments for the use of OPC is that it allows patients greater freedom and improved quality of life when compared to a civil commitment to inpatient treatment facilities while facilitating the continuity of care required in the treatment of many psychiatric and behavioral health conditions (Swanson et al., 2003). However, the most significant justification for any treatment may efficacy.

Treatments that work well become more widely implemented than those that do not, and for good reason. Unfortunately, determining OPC's efficacy in dealing with mental health conditions may not be as easy as determining the efficacy of other interventions that are intended to address purely somatic medical issues. Additionally, the efficacy of OPC for one psychiatric disorder, may not equal OPC's efficacy for another. Research on OPC's efficacy relating to treatment compliance in schizophrenic patients should not necessarily be generalized to make assumptions about OPC's efficacy as an intervention for preventing suicide. Added to the difficulty of OPC efficacy

generalization is the fact that suicide affects every age group, gender identity, and ethnicity. Furthermore, many mental health issues are not isolated and frequently have psychiatric or medical comorbidities. These confounding factors mean that we must look specifically at why, where, and when OPC might be a useful intervention. This research focused only on whether OPC might be a viable intervention for preventing self-harm and suicide for high-risk mental health patients.

### Suicide Overview

Suicide is defined as the intentional taking of one's own life (Dictionary.com, n.d.). In the United States, death rates due to suicide remained relatively constant for several decades and then began to rise over the last several years (Hedegaard et al., 2018). During this time, the mental health community has implemented multiple suicide prevention interventions and strategies but largely to no avail. During these last several decades, we have also seen a shift in the schools of thought on how mental illness should be treated. The American society has seen many of its long-term psychiatric and mental health care institutions either close or shift their focus to a more short-term treatment approach for the majority of individuals requiring inpatient mental health care. This shift in focus away from long-term inpatient mental health care has begun to spark debate through media outlets due to a perceived uptick in mass shootings and other publicized violent events (Hedegaard et al., 2018; Yohanna, 2013).

Because of a paradigm shift favoring shorter inpatient stays for mental health treatment, an intervention is needed that can bridge the gap between the continuous supervision provided on an inpatient setting, and a patient's complete lack of contact with



mental health professionals after discharge from an inpatient setting (Yohanna, 2013). If OPC can be shown to be efficacious in suicide prevention the broader use of OPC may be one way to bridge this care gap between the supervision received in an inpatient setting and the lack of supervision and patient-provider contact that occurs after discharge from the inpatient facility.

### Suicide Prevention

Outpatient commitment is classified as a secondary suicide prevention method (Ganz et al., 2010). Secondary suicide prevention is defined as suicide prevention methods that are targeted at reducing suicide attempt rates in high-risk patients (Ganz et al., 2010). This contrasts from primary suicide prevention that deals with reducing the number of new cases of suicides for society as a whole. The third type of suicide prevention, tertiary prevention, occurs after one suicide has been completed. Tertiary suicide prevention's goal is to prevent potential clusters of suicides that might be triggered by the initial event (Ganz et al., 2010). OPC is often used as a suicide prevention intervention for patients who were previously hospitalized for SI or self-harm. These patients have a known elevated risk of future self-harm when compared to the rest of society. Because OPC is used as a suicide prevention intervention for patients with a history of SI or self-harm who have a known elevated risk of future self-harm, OPC is considered a secondary prevention method (Galon & Wineman, 2010).

Outpatient commitment is only one available intervention in the effort to reduce rates of self-harm and suicide. Because involuntary OPC is a secondary suicide prevention measure, this literature review focused on secondary suicide prevention

strategies. Recent research found five effective secondary suicide prevention measures (Ganz et al., 2010). The five secondary suicide prevention strategies found to be effective were pharmacological interventions, psychological interventions, follow-up care, reduced access to lethal means, and responsible media reporting of suicide (Ganz et al., 2010). OPC can assist with the implementation of at least three, if not four, of the previously listed five secondary suicide prevention strategies. One of OPC's primary goals is medication compliance, which directly impacts the pharmacological intervention strategy. Psychological interventions and follow-up care are also integral requirements for patients placed on OPC. Furthermore, an argument could be made that some reduction in access to lethal means could be achieved, though certainly not eliminated, because of the required follow up care.

### Conclusion

Suicide attempts among high-risk patients can eventually lead to completed suicides. Although many strategies for suicide prevention exists, some research indicates that OPC can increase medication compliance, help ensure participation in follow up care after discharge from inpatient hospitalization, and improve attendance to outpatient talk therapy treatment. Some research has indicated that the use of OPC may decrease violence, including self-directed violence in high-risk patients (Swanson et al., 2000). Reducing attempts at self-directed violence could ultimately save lives and reduce the overall rate of completed suicides. The possibility remains that OPC may be a viable intervention for reducing rates of self-harm and suicide despite the continued controversy, discussion, and lack of consensus on the ethical implications on the use of

OPC. However, more research is needed to fully understand the extent of the efficacy of OPC in preventing self-harm and suicide. One method to assess OPC's efficacy at preventing self-harm and suicide is to explore the results of the previous usage of OPC in individuals who were hospitalized for suicidal ideation (SI) or suicide attempt and compare the rate of follow-on attempts of self-harm and suicide to that of individuals hospitalized for SI or suicide attempt and then subsequently released from inpatient mental health treatment without the use of an OPC.

### Summary

Chapter II contained a systematic literature review on OPC and suicide prevention. Consensus on OPC's efficacy as an intervention for suicide prevention has not been achieved. However, the use of OPC, in general, has become more prevalent, with an increasing number of states passing legislation to begin implementation of OPC. This legislation has led to a nationwide trend of increased OPC usage where OPC has been legislated into healthcare policy (Swartz et al., 2017).

OPC is classified as both a coercive treatment and a secondary suicide prevention method. OPC is a coercive treatment because it is involuntary and the patient is court-ordered to comply with the requirements of the intervention rather than giving consent for treatment. Because OPC is coercive, its usage remains controversial and significant discussion surrounds the ethics of its implementation, effectiveness, and limitations (Player, 2015). OPC is defined as a secondary suicide prevention method because it targets patients with a history of SI or self-directed violence who are already at an increased risk of committing suicide. In contrast, primary suicide prevention methods

seek to prevent new suicides for the general population, and tertiary suicide prevention methods are implemented after a completed suicide has occurred and seek to prevent suicide contagion and copycat suicides (Ganz et al., 2010). Research has suggested that the use of OPC can decrease both self-directed and other-directed violent behavior in high-risk patients (Ganz et al., 2010).

## CHAPTER III - METHODS

### Introduction

The purpose of this quantitative, correlational study was to determine the frequency of use of OPC by Mississippi psychiatrists and PMHNPs as a suicide prevention intervention and to determine if there is any relationship between the use of OPC and rates of self-harm and suicide. If a possible negative correlation between the use of the OPC and rates of self-harm and suicide is found, it could suggest that the increased implementation of OPC as a suicide prevention intervention may be warranted. The results from this study may be used in future research to determine whether the effectiveness of OPC in deterring events of self-harm and suicide is efficacious enough to warrant wider implementation of the OPC as an intervention for suicide prevention. Finding an intervention that proves to be efficacious in decreasing suicide rates would be of interest across the entire mental health community, as suicide rates remained constant for several decades since 1980 and are now on the rise despite a myriad of attempted interventions (Hedegaard et al., 2018).

### Research Design and Approach

The research design used for this study is a quantitative correlational analysis of data reported by Mississippi's psychiatrists and PMHNPs using a 19-question survey developed by the researcher (Appendix A). The survey asked all Mississippi psychiatrist and PMHNP respondents to report the number of patients they treated for self-harm or SI within the last two years, how often OPC was used for these patients, and how often these patients attempted self-harm, were hospitalized for contemplating self-harm or SI or

committed suicide. A correlational analysis was used as the research design for this study because the researcher had no way of manipulating when OPC was used and when it was not used for patients under the care of Mississippi psychiatrists and PMHNPs. Furthermore, if manipulation of the use of OPC were possible, it would be unethical based on the outcome measures of self-harm and completed suicide events.

### Setting and Sample

The population from which the sample was drawn was all psychiatrists and PMHNPs licensed in Mississippi. Potential participants were selected by obtaining lists of all psychiatrists and PMHNPs licensed in Mississippi from the MSBML and the MBON, respectively. The collective number of individuals from the list of Mississippi psychiatrists and Mississippi PMHNPs constituted the sample frame.

Because this study used survey data, a convenience sample of Mississippi psychiatrists and PMHNPs who volunteered to provide anonymous responses to mailed and emailed respondent request letters was used. Mississippi psychiatrists and PMHNPs were selected as potential respondents because they have the legal authority to treat a patient under OPC and to write orders placing patients on OPC. The MSBML does not provide email addresses as part of physician contact information. The researcher prepared a letter with a link to the online survey to be mailed to all psychiatrists initially identified on the roster obtained by the MSBML ( $N = 412$ ) and emailed to all PMHNPs originally identified on the roster obtained by the MBON ( $N = 338$ ). This initial sample of 750 psychiatrists and PMHNPs was deemed to be adequate to continue research after the

results of a power analysis (Table 1) showed that only 22 responses were necessary for a power of 0.8 and a moderate effect size of 0.55 at a significance level of 0.05.

### Instrumentation

The psychometric instrument used in this research was a 19-question survey developed by the researcher (Appendix A). This survey was intended for psychiatrists and PMHNPs to determine how often they used OPC as a suicide prevention intervention, and if a relationship existed between the use of OPC and rates of self-harm and suicide. Question one of the survey asked if the survey had reached the intended potential respondent. Question two asked if the potential respondent was a psychiatrist or PMHNP.

Questions regarding the patient population under the care of potential respondents began with Question 3, which asked how many patients the respondent had treated in the last two years for SI. Question 4 was similar, asking how many patients had been treated within the same timeframe for attempted suicide or self-harm. At the time the survey was developed, the researcher felt distinguishing between the use of OPC for patients who had expressed suicidal ideation was important, versus the use of OPC for patients who had physically attempted self-harm or suicide. Question 5 asked respondents for the total number of patients they had treated for either SI, attempted suicide, or self-harm.

Questions regarding respondent use of OPC began with question 6, which asked how many OPC orders respondents had written in the last two years for patients who had attempted suicide or self-harm. Question 7 asked respondents how many OPC orders they had written for patients who had expressed SI. Question 8 asked respondents to report the

total number of OPC orders they had written for patients who had attempted self-harm, or suicide, or expressed SI. Questions 9, 10, and 11 asked respondents to provide free text rationales if they had not written OPC orders for patients with SI, or a history of self-harm or suicide attempt, and if they would consider the use of OPC as a suicide prevention intervention in the future. Question 12 asked respondents to report how many patients they had under their care in the last 2 years that had OPC orders written by another provider. Question 13 asked respondents to report the total number of patients under their care in the last 2 years who were under OPC orders.

Questions regarding self-harm, hospitalization, and suicide events began with question 14, which asked respondents to report the number of patients under their care in the last 2 years who were on OPC that attempted self-harm. Question 15 asked respondents to report the same information for patients who were not on OPC. Question 16 asked respondents to report the number of patients under their care in the last 2 years who were under an OPC order that were hospitalized as a condition of the order. Question 17 asked respondents to report the number of patients under their care in the last two years who were not on OPC that were hospitalized for SI, self-harm, or suicide attempt. Question 18 asked respondents to report the number of patients under their care in the last 2 years who were on OPC that committed suicide. Question 19 asked respondents to report the number of patients under their care in the last two years for SI, self-harm or suicide attempt who were not on OPC who committed suicide.



A power analysis for a one-tailed, paired-samples t-test was conducted to determine the number of survey respondents necessary to obtain statistical significance. The results of the power analysis showed that for this research to be statistically significant at an alpha level of 0.05, a power of 0.8, and a moderate effect size of 0.55, 22 quantifiable survey responses were needed. The results of the power analysis are shown in Table 1 below. Paired samples t-tests were used to analyze data from the completed surveys and compare rates of self-harm and suicide when OPC was used to rates of self-harm and suicide when OPC was not used. Paired-samples t-tests are inferential statistics used to compare the difference in means between two sets of observations. Paired samples t-tests are used to determine if the difference between means is significant when comparing variables from the same group (Daniel & Cross, 2013). Because the results from this research were obtained from a single group of respondents, paired-samples t-tests were used. Results of the frequency of attempts of self-harm and completed suicide were then compared between instances when OPC was used and instances when OPC was not used.

Table 1

*Power Analyses for Paired Samples T-test*

Significance level ( $\alpha$ )	Power (1 – $\beta$ )	Effect Size	Sample size
0.05	0.7	0.25	N = 77
		0.55	N = 17
		0.80	N = 9
	0.8	0.25	N = 101
		0.55	N = 22
		0.80	N = 12

## Procedures

The researcher developed a survey for psychiatrists and PMHNPs (Appendix A) to determine the number of patients that individual Mississippi psychiatrists and PMHNPs treated for self-harm or suicidal ideation within the last two years, how often the OPC was used for these patients, and how often these patients attempted self-harm, were hospitalized for SI or attempted self-harm or committed suicide. The survey consisted of 19 questions and a link to the survey was posted to the Qualtrics survey website. Institutional Review Board (IRB) approval was requested and received through The University of Southern Mississippi (USM) (Protocol 19-341, Appendix B). Recruitment letters containing a link to the online survey were mailed to all potential psychiatrist respondents and emailed to all potential PMHNP respondents. Potential respondents were initially asked to complete the online survey within two weeks. Due to an extremely low initial response rate, a modified IRB request was submitted and approved (Appendix B) and the survey link was re-emailed to all PMHNPs, a link was posted with permission to the private Mississippi Advanced Practice Registered Nurse social media page, and survey results were accepted until the time of data analysis on September 15, 2019.

Lists of all licensed Mississippi psychiatrists and PMHNPs were obtained from the MSBML and the MBON. Names of all psychiatrists and PMHNPs in the received lists were considered potential respondents. All potential psychiatrist respondents were mailed a hard copy recruitment letter containing a link to the web address of the survey because the MSBML provides physical work addresses only as contact information and

refused to provide the researcher with email addresses. Because the MBON provided valid email addresses as a part of PMHNP contact information, the researcher was able to email a link to the online survey to all potential PMHNP respondents.

### Data Analysis

As of September 15, 2019, the online survey site, Qualtrics, showed that the survey link had been accessed 51 times and the survey had been completed 26 times. Data analysis began by comparing how many times the OPC was used versus how many patient opportunities there were for OPC to be used. Comparisons on self-harm and suicide events were then made between patients with SI or a history of self-harm who were treated using OPC and patients who were treated without the use of OPC, to determine if a possible correlation exists between the use of OPC as a suicide prevention intervention and rates of self-harm and suicide for these patients. Data analysis began by comparing how many times the OPC was used versus how many patient opportunities there were for OPC to be used. Comparisons on self-harm and suicide events were then made between patients with SI or a history of self-harm who were treated using OPC and patients who were treated without the use of OPC to determine if a possible correlation exists between the use of OPC and rates of self-harm and suicide for these patients.

### Summary

This research used a quantitative correlational design to analyze data on the use of OPC. Data was gleaned from responses to a 19-question survey developed by the researcher (Appendix A). Potential respondents were identified as all psychiatrists and PMHNPs licensed in Mississippi. Initially, 750 potential respondents were identified by

obtaining lists of all licensed Mississippi psychiatrists and PMHNPs from the MSBML and MBON, respectively. IRB approval was granted through USM and recruitment letters containing links to the online survey were mailed to psychiatrists and emailed to PMHNPs. Survey responses were stored on the Qualtrics website. The initial response rate was low and a second, modified IRB request was approved through USM so that additional recruitment letters could be sent to potential respondents and posted to private, professional social media pages. As of September 15, 2019, the online survey site Qualtrics showed that the survey link had been accessed 51 times and the survey had been completed 26 times. Data from the survey responses were then compared for patients for whom OPC was used versus patients for whom OPC was not used.

## CHAPTER IV – RESULTS

### Introduction

This research used a 19-question survey (Appendix A) developed by the researcher to ascertain the degree of use, and effectiveness of, OPC as an intervention for suicide prevention. Licensed Mississippi psychiatrists PMHNPs were identified as the population of potential respondents. Lists of all psychiatrists and PMHNPs licensed in Mississippi were obtained from the MSBML and MBON, respectively. Initially, a total of 750 potential respondents were identified. A power analysis indicated that 22 responses were necessary to obtain statistically significant data. An IRB approval was received through USM, the survey was uploaded to the Qualtrics website, and recruitment letters were mailed and emailed to potential respondents. Due to a low initial response rate, a second modified IRB request was approved through USM so that additional recruitment letters could be sent.

As of September 15, 2019, Qualtrics showed that the survey link had been accessed 51 times and the survey had been completed 26 times. Results from the 23 quantifiable responses indicated that for a sample of 5,821 patients, OPC was used for 411 patients. OPC was used as a suicide prevention intervention for 7.06% of the at-risk patients identified in this research. Comparison analyses and paired sample t-tests were performed on the data. Paired sample t-tests with a p-value of less than 0.001 indicated means of 1.09 attempts of self-harm and 0.00 completed suicides for patients where OPC was used versus means of 14.95 attempts of self-harm and 1.61 completed suicides when OPC was not used.

### Sample Characteristics

This study identified all licensed Mississippi Psychiatrists ( $n = 412$ ) and PMHNPs ( $n = 338$ ) as potential respondents. Of the initial 412 potential psychiatrist respondents, 16 had an insufficient mailing address, resulting in 396 paper survey letters being mailed. Of those 396 letters, 38 were returned to the researcher as undeliverable, and one potential respondent drafted correspondence stating that she was close to retirement and would not be taking the survey. Subtracting all returned and unwanted hard copy survey letters left 357 potential psychiatrist respondents. Of the initial list of 338 PMHNPs emailed, three were undeliverable, leaving 335 potential PMHNP respondents. Subtracting all undeliverable emails left a total of 692 potential survey respondents.

A power analysis for a one-tailed t-test indicated that at an alpha level of 0.05, meaning that there is a 95% chance we will not commit a type I error, with a power of 0.8, meaning that we will have an 80% chance of not committing a type II error, and a moderate effect size of 0.55, 22 completed responses were needed. On September 15, 2019, the Qualtrics website showed that the survey link had been accessed 51 times and that the survey had been completed 26 times. 26 completed surveys from a pool of 692 potential respondents indicate an extremely low response rate of only 3.75%. The results of the 26 completed surveys were reviewed by the researcher. Of these 26 responses, three were unusable because they did not provide quantifiable data and instead used vague terminology such as “many,” “dozens,” “hundreds probably,” or stated they simply did not know the answer to some survey questions. The questions of immediate interest were Question 5 which indicated the total number of patients treated by each respondent

for SI or a history of attempted self-harm or suicide, Question 13 which indicated the total number of patients treated by each respondent where OPC was used, Question 14 which indicated the number of patients under an OPC order who attempted self-harm, Question 15 which indicated the number of patients not under an OPC order who attempted self-harm, Question 18 which indicated the number of patients under an OPC order who committed suicide, and Question 19 which indicated the number of patients not under an OPC order who committed suicide. All respondents indicated that they were either a Psychiatrist or PMHNP. Questions regarding rehospitalization rates were not analyzed as almost all respondents remarked that these questions were unanswerable as there was no way for them to know if patients had been hospitalized elsewhere.

Results from the 23 quantifiable responses indicated that for a sample of 5,821 patients, OPC was used for 411 patients. Paired sample t-tests with a p-value of less than 0.001 indicated means of 1.09 attempts of self-harm and 0.00 completed suicides for patients where OPC was used versus means of 14.95 attempts of self-harm and 1.61 completed suicides when OPC was not used. These results indicate that there is a statistically significant difference between groups when OPC was used versus when OPC was not used. The use of OPC for 411 patients out of a potential 5,821 patient opportunities means that OPC was used as a suicide prevention intervention by Mississippi psychiatrists and PMHNPs only 7.06% of the time. Although OPC was always available as a possible suicide prevention intervention for these 5,821 at-risk patients, it was not used in 92.94% of the reported cases.

## Survey Responses and Reliability

Response frequencies were analyzed for the quantifiable responses to each of the survey questions. Question 5, asked respondents to report the total number of patients under their care for the last two years for SI or self-harm. Responses for question 5 ranged from 16 to 750 patients. Eleven respondents reported they had seen 250 or more patients, 1 respondent reported they had seen 200 patients, and 11 respondents reported they had seen 100 or fewer patients.

Question 13 asked respondents to report the total number of patients under their care on OPC in the last 2 years. Responses ranged from 0 to 135 patients. Five respondents indicated that they had 0 patients on OPC. Twelve respondents indicated they had 20 or fewer patients on OPC. Five respondents indicated they had 30 or more patients on OPC during the timeframe of interest.

Question 14 asked respondents to report the number of patients they had on OPC only for attempted suicide or self-harm. Responses ranged from 0 to 10. Fifteen respondents indicated that 0 of their patients on OPC attempted self-harm. Three respondents indicated that 2 of their patients on OPC who attempted self-harm. One respondent each indicated they had 1, 3, 4, and 10 patients, respectively, on OPC who attempted self-harm. The aggregate total of all responses showed that 24 of the 411 patients who were on OPC attempted self-harm.

Question 15 asked respondents to report the number of patients under their care in the last two years who were not on OPC attempted suicide or self-harm. Responses ranged from 0 to 50 patients. Two respondents indicated that 0 of their patients who were



not on OPC attempted self-harm. Ten respondents indicated that 10 or fewer of their patients without an OPC attempted self-harm. Ten respondents indicated that they had 14 or more patients who were not on OPC that attempted self-harm. The aggregate data from all responses indicated that 329 of the 5,410 patients who were not on OPC attempted self-harm during the timeframe of interest.

Question 18 asked respondents to report the number of patients under their care in the last two years who were on OPC that completed suicide. All 23 respondents reported 0 completed suicides for patients for whom OPC was used during the timeframe of interest. Question 19 asked respondents to report the number of patients under their care in the last two years who were not on OPC that completed suicide. Responses ranged from 0 to 4. Six respondents reported 0 completed suicides. Five respondents reported 1 completed suicide. Six respondents reported 2 completed suicides. Four respondents reported 3 completed suicides. Two respondents reported 4 completed suicides for patients under their care in the timeframe of interest who were not on OPC.

A Cronbach's alpha test was performed to measure the reliability of the survey tool. Questions one and two asking if the survey had reached the intended addressee and if the person taking the survey was a psychiatrist or PMHNP were omitted. Questions nine, 10, and 11 asking respondents to elaborate with free text on why they had not previously used OPC, and if they would consider the use of OPC as a suicide prevention intervention in the future, were also omitted. The Cronbach's alpha was calculated for the remaining 14 survey items. An acceptable Cronbach's alpha score indicating the reliability of a psychometric tool is generally considered to be .70 (Daniel & Cross,

2013). The Cronbach's alpha score for the survey used in this study was .697, just under the generally accepted level of .70 (Daniel & Cross, 2013).

### Comparison Analyses

The comparison analysis of attempted self-harm events between the group of patients where OPC was used and the group of patients where OPC was not used showed that the mean number of provider-reported attempted self-harm events was significantly lower when OPC was used. Survey respondents reported an average of 14.95 self-harm events for the group of patients who were not placed on OPC versus an average of 1.09 self-harm events for the group of patients who were placed on OPC. The comparison analysis of completed suicides between the group of patients for whom OPC was used and the group of patients for whom OPC was not used also seemed to point to the effectiveness of OPC as a suicide prevention intervention. The comparison analysis showed that the group of patients for whom OPC was used had a lower average number of completed suicides than the group of patients for whom OPC was not used. Even more intriguing is that the comparative analysis showed that there were no completed suicides for all 411 patients who were placed on OPC. The comparison analyses described above are presented in Table 2 below.

Table 2

#### *Comparison Analysis of Self-Harm and Suicide With and Without OPC*

Group	Mean	N	Standard Deviation	Standard Error Mean
Self-Harm with OPC	1.09	22	2.308	0.492
Self-Harm without OPC	14.95	22	15.849	3.319
Suicides on OPC	0	23	0	0
Suicides not on OPC	1.61	23	1.305	0.272

### Paired Samples t-test

Table 3 shows the results of the paired samples t-test. The confidence interval shows the upper and lower limits of where it can be assumed with 95% certainty that the true population mean falls. Both means fell within the upper and lower limits of the confidence intervals. Sig (One-Tailed) is the one-tailed p-value. Because this number is below the alpha value of 0.05, the null hypothesis can be appropriately rejected and the results of this research are assumed to be statistically significant (Daniel & Cross, 2013). Respondents reported an average of 13.864 fewer self-harm attempts for patients under their care in the last two years who were on OPC versus those who were not. Respondents reported an average of 1.609 fewer completed suicides for patients under their care in the last two years who had an OPC order versus those who did not.

Table 3

*Paired Samples t-test*

Groups	Mean	Standard Deviation	Standard Error Mean	95% Confidence Interval of the Difference		t	Degrees of Freedom	Sig (1-tailed)
				Lower	Upper			
Attempted Self-Harm on OPC vs. Attempted Self-Harm without OPC	-13.864	14.782	3.152	-20.418	-7.31	-4.399	21	0
Completed suicides on OPC vs. Completed suicides without OPC	-1.609	1.305	0.272	-2.173	-1.044	-5.911	22	0

## Summary

Results of a power analysis indicated that survey 22 responses were necessary for this research to yield statistically significant results. Out of an initial 750 identified potential respondents, 26 completed surveys were received through Qualtrics. Of the 26 completed surveys, 23 contained quantifiable data. The Cronbach's alpha score for the survey used in this study was .697. Aggregate data from all quantifiable responses indicated that out of 5,821 patients, OPC was used for 411. OPC was used as a suicide prevention intervention for 7.06% of the at-risk patients identified in this research. Paired sample t-tests with a p-value of less than 0.001 indicated means of 1.09 attempts of self-harm and 0.00 completed suicides for patients where OPC was used versus means of 14.95 attempts of self-harm and 1.61 completed suicides when OPC was not used. There were no completed suicides in instances where OPC was used. These results indicate that there is a statistically significant difference between groups when OPC was used versus when OPC was not used.

## CHAPTER V – CONCLUSIONS AND RECOMMENDATIONS

### Interpretation of Findings

This research began by asking if Mississippi psychiatrists and PMHNPs used OPC as a suicide prevention intervention for at-risk patients and if a relationship existed between the use of OPC and rates of self-harm and suicide. Of the 5821 at-risk patients identified by this research, OPC was used for 411. OPC was used as a suicide prevention intervention for 7.06% of the at-risk patients identified in this research. OPC was not used as a suicide prevention intervention in 92.94% of the cases where it was available. These results answer the first research question by revealing an extremely low rate of use of OPC by Mississippi psychiatrists and PMHNPs as a suicide prevention intervention.

Of primary significance for this study was that for all 411 high-risk patients for whom OPC was used, there were no completed suicides. Each individual respondent, as well as the aggregate data, reported no suicides when OPC was used as an intervention for suicide prevention. Paired samples t-tests (Table 3) revealed a statistically significant difference in both the number of attempted self-harm events (1.09 (SD = 2.308) vs. 14.95 (SD = 15.849),  $p < .001$ ) and completed suicides (0.00 (SD = 0.000) vs. 1.61 (SD = 1.305),  $p < .001$ ) between cases when OPC was used and cases when OPC was not used.

The results of this research reflected and expanded upon what was found in prior literature. As in prior research, the rates of use of OPC in this study were low compared to the number of opportunities that OPC could have been used (7.06%), leading the researcher to believe that OPC continues to be underutilized as a suicide prevention intervention. However, the results of this research showed that when OPC was used,

instances of attempted self-harm and suicide were significantly lower than when OPC was not used. The use of OPC appears to affect rates of both attempted self-harm and suicide for high-risk patients.

Because OPC is a controversial, coercive treatment, OPC needs to be supported by healthcare policy and legislation. The need for healthcare policy and legislation to support OPC is asserted within the framework of Ray's Theory of Bureaucratic Caring. Ray's theory asserts that policies guide behaviors of caring. Ray's theory also asserts that political, governance, and power structures within healthcare influence decision making. (Ray & Turkel, 2010).

#### Limitations

This study was limited by the poor survey response rate. Of an initial 750 identified possible survey participants and 692 successfully mailed or emailed survey letters, only 26 completed surveys were received, and only 23 of these contained usable quantifiable data. The respondent burden was possibly underestimated by the researcher. Some survey questions were possibly either unclear or too similar to one another. Other possibilities for the low response rate may be the methods of delivery. The researcher was required to mail hard copy recruitment letters to all potential psychiatrist respondents because email addresses for physicians are not made available as a part of the contact information provided by the MSBML. The hard copy letter contained a link to the survey that needed to be manually typed into the potential respondent's web browser creating increased respondent burden and the possibility for human error when transcribing the link address from the recruitment letter. Survey links that were directly emailed to the

email addresses of record provided by the MBON for potential PMHNP respondents also did not yield a high response rate. It is impossible for the researcher to know whether the respondents who completed the survey were the intended psychiatrists or PMHNPs.

Recruitment emails to PMHNPs may have been automatically directed to spam folders instead of email inboxes, or the emails may have been dismissed or deleted without being opened. The poor survey response rate coupled with the use of a newly developed survey with an initial Cronbach's alpha of .697 suggests that further psychometric testing is warranted to continue testing the reliability of the survey as a psychometric tool.

Another limitation of this anonymous survey is that the researcher has no way to definitively know who actually completed the submitted surveys. Although links were mailed and emailed to the addresses listed as official contact information by the MSBML and MSBON, once the letters and emails containing survey links were sent the researcher was left to trust that it was only the intended recipients who accessed the survey links.

This research was also limited by the design of the study. The participant sample was not a true random sample as it was limited to only licensed Psychiatrists and PMHNPs in Mississippi. Responses were also limited to those willing to respond to the survey and relied on those selected as potential respondents to volunteer to complete the survey questions. Furthermore, correlative analysis can identify possible relationships between variables, but cannot determine causation.

### Recommendations

The researcher's recommendation for future research is a study utilizes an edited survey to reduce respondent burden by eliminating questions 3, 4, 6, 7, 9, 10, 11, 12, 16,



and 17. Eliminating these survey questions would create a more concise tool focused only on the use of OPC and its possible relationship to attempts of self-harm and suicide without asking for peripheral information. The researcher also recommends that a retrospective analysis of patients' records be conducted to obtain the most accurate and verifiable data and to verify whether a correlation between the use of OPC and rates of self-harm and suicide exists. Although a retrospective analysis of this type might be burdensome and time intensive depending on the type of charting software used at individual mental health facilities, there is charting software available that facilitates streamlined queries to obtain the data of interest. A retrospective chart analysis would eliminate inaccuracies associated with the respondent burden of the survey and does not rely on individual respondents to either look up the patient data themselves or provide data from memory. Lastly, the researcher recommends that further psychometric testing be done on the survey used in this study to confirm its reliability as a psychometric tool.

If future research can replicate the results obtained in this study, a strong recommendation for the increased implementation of OPC as a suicide prevention intervention should be made by the nursing and mental health communities. Because of the coercive nature of OPC, advocacy for the increased use of OPC as a suicide prevention intervention must be supported by official health policy and legislation. Changes in healthcare policy and legislation would assist public acknowledgment of the potential impact of OPC on acts of self-harm and suicide in the United States.

## Summary

The results of this study indicated a low rate of usage of OPC (7.06%) by Mississippi psychiatrists and PMHNPs as a suicide prevention intervention for at-risk patients. The results of this study indicated a statistically significant difference between the number of attempted self-harm events (1.09 (SD = 2.308) vs. 14.95 (SD = 15.849),  $p < .001$ ) and the number of completed suicides (0.00 (SD = 0.000) vs. 1.61 (SD = 1.305),  $p < .001$ ) when OPC was used versus when OPC was not used. The results of this research indicated a strong possibility that a relationship exists between the use of OPC and decreased rates of attempted self-harm and suicide. If future research can replicate the results of this study, a strong case should be made for the increased implementation of OPC as a suicide prevention intervention. If a case for the increased implementation of OPC is made, changes in both legislation and healthcare policy should be made to support the increased implementation of OPC.

## APPENDIX A - Survey

### Survey on the Usage of Outpatient Commitment Orders

(If additional space is needed, please indicate the item number on the back of the survey and continue answering.)

1. Are you the person to whom this survey was addressed?  
\_\_\_\_\_
2. Are you a Psychiatrist or PMHNP?  
\_\_\_\_\_
3. In the last two years, how many patients have you treated for suicidal ideation?  
\_\_\_\_\_
4. In the last two years how many patients have you treated with a history of attempted suicide or self-harm?  
\_\_\_\_\_
5. In the last two years what is the total number of patients you have had under your care who were treated for either suicide attempt/self-harm or suicidal ideation?  
\_\_\_\_\_
6. Of the patients you have treated in the last two years, how many Outpatient Commitment orders have you written for patients who had previously attempted suicide or self-harm?  
\_\_\_\_\_
7. Of the patients you have treated in the last two years, how many Outpatient Commitment orders have you written for patients who had previously expressed suicidal ideation?  
\_\_\_\_\_
8. Of the patients you have treated in the last two years, what is the total number of Outpatient Commitment orders have you written for patients who had previously attempted suicide or self-harm, or expressed suicidal ideation?  
\_\_\_\_\_
9. If you have not written any Outpatient Commitment orders for patients with suicidal ideation, or who have previously attempted suicide/self-harm, what are your reasons for not considering Outpatient Commitment as a treatment option?  
\_\_\_\_\_
10. If you have not written any Outpatient Commitment orders for patients with suicidal ideation, would you consider this as a treatment option in the future for patients with a

history of suicidal ideation? Please include a short rationale.

---

11. If you have not written any Outpatient Commitment orders for patients who have previously attempted suicide/self-harm, would you consider this as a treatment option in the future for patients with a history of self-harm? Please include a short rationale.
- 

12. In the last two years how many patients have you had under your care for suicide attempt/self-harm or suicidal ideation that were placed on an Outpatient Commitment order by another provider?
- 

13. In the last two years what is the total number of patients you have had under your care who had outpatient commitment orders for self-harm or suicidal ideation? (orders written by you or someone else)
- 

14. In the last two years, of the patients under your care for suicide attempt/self-harm or suicidal ideation that were on an Outpatient Commitment order, how many attempted suicide/self-harm?
- 

15. In the last two years, of the patients under your care for self-harm or suicidal ideation that were not under an Outpatient Commitment order, how many attempted suicide/self-harm?
- 

16. In the last two years, of the patients under your care for suicide attempt/self-harm or suicidal ideation that were on an Outpatient Commitment order, how many were hospitalized on an inpatient mental health unit as a result of the conditions of the order?

17. In the last two years, of the patients under your care with a history of suicide attempt/self-harm or suicidal ideation and NOT on an outpatient commitment order who required hospitalization on an inpatient mental health unit, how many were hospitalized for suicidal ideation or attempted suicide/self-harm?
- 

18. Of the patients under your care in the last two years for suicide attempt/self-harm or suicidal ideation that were on an Outpatient Commitment order, how many committed suicide?
-

19. Of the patients under your care in the last two years for suicide attempt/self-harm or suicidal ideation that were NOT under an Outpatient Commitment order, how many committed suicide?

---

## APPENDIX B –IRB Approval Letters

### Office of Research Integrity



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#### 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-19-341

PROJECT TITLE: The Usage and Impact of Outpatient Commitment Orders on Suicide and Suicide Attempt Rates in Mississippi

SCHOOL/PROGRAM: College of Nursing - GP, School of LANP

RESEARCHER(S): Sam Mauldin, Patsy Anderson

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.

PERIOD OF APPROVAL: July 24, 2019 to July 23, 2020

Donald Sacco, Ph.D.  
Institutional Review Board Chairperson

**Modification Institutional Review Board Approval**

The University of Southern Mississippi's Office of Research Integrity has received the notice of your modification for your submission The Usage and Impact of Outpatient Commitment Orders on Suicide and Suicide Attempt Rates in Mississippi (IRB #: IRB-19-341).

Your modification 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-19-341

PROJECT TITLE: The Usage and Impact of Outpatient Commitment Orders on Suicide and Suicide Attempt Rates in Mississippi

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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.

PERIOD OF APPROVAL: August 22, 2019




Donald Sacco, Ph.D.

Institutional Review Board Chairperson

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