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Exploring The Physical And Mental Health Disparities In The Transgender Male Community In A Southern Community-Based Medical Lgbtq Organization

Karen E. Musgrove
University of Alabama at Birmingham

EXPLORING THE PHYSICAL AND MENTAL HEALTH DISPARITIES IN THE TRANSGENDER MALE COMMUNITY IN A SOUTHERN COMMUNITY-BASED MEDICAL LGBTQ ORGANIZATION

by

KAREN MUSGROVE

ROBIN GAINES LANZI, CHAIR
ANN ELIZABETH MONTGOMERY
MICHAEL MUGAVERO
DOROTHY PEKMEZI
NICHOLAS VAN WAGONER

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EXPLORING THE PHYSICAL AND MENTAL HEALTH DISPARITIES IN THE TRANSGENDER MALE COMMUNITY IN A SOUTHERN COMMUNITY-BASED

KAREN MUSGROVE

HEALTH EDUCATION AND HEALTH PROMOTION

ABSTRACT

This dissertation examined the physical and mental health disparities in the transgender male community in a Southern community-based medical LGBTQ (lesbian, gay, bisexual, transgender, queer) organization via a convergent mixed methods study design. There is a paucity of research on the transgender male community in terms of their physical and mental health care needs, services, and disparities. Quantitative data were collected via a chart review of 130 transgender male medical charts at the Magic City Wellness Center (MCWC). The MCWC transgender male medical chart data were compared to three groups separately of the 2018 Behavioral Risk Factor Surveillance System (BRFSS) dataset: (a) BRFSS Transgender Males: all transgender males from the BRFSS dataset; (b) BRFSS South: all BRFSS participants from the Southern US; and (c) BRFSS all: all participants from the BRFSS dataset. Overall, the transgender males at MCWC were under the age of 35 and not engaging in high-risk behaviors. The MCWC transgender male patients had a higher incidence of depressive disorder and anxiety than the BRFFS participants and the general population. The qualitative data included 13 individual interviews conducted with a representative group of transgender males; 10 interviews with participants who were past or present patients at MCWC, and 3 with participants who were not past or current patients of MCWC. Qualitative interviews revealed consistent barriers to medical and mental health services included the lack of affirming

providers, community resources, financial resources, and competent providers. This study is one of the first ever to investigate the physical and mental health disparities of the transgender male community in a LGBTQ medical and mental health facility in Alabama. Through this research, it is apparent that an affirming medical and mental health provider is critical to a healthier LGB and transgender community. Medical and mental health providers must break down the barriers to care for the transgender male patient to ensure access to resources and tools needed to be healthy, happy, and find inspiration to become advocates and mentors to the next transgender male generation.

Keywords: transgender male, LGBTQ, medical and mental health care, South

DEDICATION

I was not accepted into college after high school, not one. My high school graduating GPA was 1.98 (2.3 with marching band). Teachers, school, and test taking were never my forte. However, in 2017, I set a goal for myself – receive a PhD, with a 4.0 GPA, in 3 years. These goals and this dissertation were achieved with support of many people but would not be possible without the support of my parents. My parents have always kept me motivated, uplifted, and inspired from the first day of summer school in college as a "conditionally accepted" student to enrolling in this PhD program.

To Peggy Kennedy who taught me, by example, that education is an obtainable goal regardless of your age. Yes, it can be difficult as an adult returning student but never be discouraged by the newest technology or the fact that you are the oldest in the room. She committed to driving me to school every Monday morning to ensure I was not late for my 8:00 AM class. On the drive to class, when I was tired, overwhelmed, and thought about quitting, she was my cheerleader and reminded me that I could do this, I could accomplish this goal, and instilled in me that importance of school -- to keep learning and growing.

To Lin and Jim Musgrove who encouraged me to enroll in graduate school and pursue this dream. On August 5, 2017, I told my Dad I would not start school because it would be too hard, too expensive, and take too long; my Dad refused to listen to these excuses and provided me the rationale as to why this was not acceptable. I enrolled at UAB the next day and started this journey. Lin and Dad have been my cheerleaders, encouraging me, asking about my classes, and providing enthusiasm to keep me moving forward.

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Each of my committee members brought a perspective to this research project: Dr. Mugavero for inspiring me to see my position at BAO as more than a CEO and to think from a global perspective; Dr. Pekmezi for helping me fall in love with theory again and how to use the theory constructs as the foundation for my research; Dr. Van Wagoner for the amazing work he is doing with transgender college students at UAB; and, Dr. Montgomery for showing me that qualitative data can be the bridge between the hard data, facts, and personal stories. Each committee member inspired and supported me throughout this dissertation.

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Dr. Scott Batey reminded me that the academia world was calling me back. Scott reminded me that community-based organizations and researchers should be integrated and working together to provide meaningful research and programs; researchers need community-based organizations and community-based organizations need researchers. Scott encouraged me when I needed a friend – a friend that will always tell you the truth.

Dr. Corilyn Ott, UAB School of Nursing Researcher, taught me a new program for coding qualitative data, bringing meaning to the words of the transgender male interviews and pushing me to find deeper meaning and stories in their words.

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Steve Rygiel, my grammar expert. Steve can manipulate the simplest of sentences to form words of inspiration and poetry -- It is a true gift.

The board of directors at Birmingham AIDS Outreach and Chris Fisher, Chair, for the support and guidance to establish the Magic City Wellness Center, Alabama's first LGBTQ medical and mental health facility. Through this research, it is apparent that an affirming medical and mental health provider is the key to a healthier LGB and transgender community. We must continue to expand our services and reach the transgender community that has limited affirming providers for medical and mental health care.

Dr. Max Michael, former Dean UAB School of Public Health, for listening to my argument that 20 years of experience in the "real world" should override the requirement for the GRE exam. Dr. Michael understood that sometimes it is not about a score on a standardized exam.

Josh Bruce, research assistant, conducted the transgender male individual interviews when it was not appropriate for me as CEO to facilitate an interview.

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and motive me to ensure that we are providing quality and meaningful services and programs and ensuring that the transgender voice is heard. Since March 12, 2020, the start of COVID-19, the staff have proven that they can adapt to any challenge to ensure that our services are reaching the HIV and LGBTQ community.

Special thanks to the transgender male individuals who participated in the individual interviews providing honest in-depth answers to barriers to physical and mental health care in the South. Your honesty is inspiring, and I will use your words and guidance to expand the transgender services at Birmingham AIDS Outreach, the Magic City Wellness Center, the Magic City Acceptance Center, and the Magic City Acceptance Academy.

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LIST OF ABBREVIATIONS

ADD	Attention Deficit Disorder
ADHD	Attention Deficit Hyperactivity Disorder
BAO	Birmingham AIDS Outreach
BRFSS	Behavioral Risk Factor Surveillance System
BMI	Body Mass Index
CDC	Centers for Disease Control and Prevention
DSM-5	Diagnostic and Statistical Manual of Mental Disorders (DSM–5)
HBM	Health Belief Model
HIPAA	Health Insurance Portability and Accountability Act
HIV	Human Immunodeficiency Virus
HRT	Hormone Replacement Therapy
LGB	Lesbian, Gay, Bi-sexual
LGBTQ	Lesbian, Gay, Bi-sexual, Transgender, Queer / Questioning
LGBTQIA	Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, and Asexual
MCAA	Magic City Acceptance Academy
MCAC	Magic City Acceptance Center
MCWC	Magic City Wellness Center
MD	Doctor of Medicine
PrEP	Pre-exposure prophylaxis

PWH	People with HIV
SAS	Statistical Analysis Software
SEM	Social Ecological Model
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection

CHAPTER 1

INTRODUCTION

This dissertation examined the physical and mental health disparities in the transgender male community in a Southern community-based medical LGBTQ (lesbian, gay, bisexual, transgender, queer) organization via a mixed methods study design. It included comparisons of medical and mental health chart review data with the 2018 Behavioral Risk Factor Surveillance System (BRFSS) data and individual interviews conducted with a representative group of transgender males. Physical and mental health data of transgender male patients were assessed via chart reviews of 130 transgender male patients at the MCWC, Alabama's first and only LGBTQ medical facility. These data were compared to data from the 2018 BRFSS. The BRFSS is the nation's premier system of health-related telephone surveys that collect individual data to aggregate to state-level data about United States (U.S.) residents and is the largest collection of health and behavioral information (Prevention, 2014). Further, the experiences and perceptions of physical and mental health disparities among the transgender male population were explored via qualitative individual interviews. The interviews were based on the Social Ecological Model (SEM) and the Health Belief Model specifically for the SEM individual level. The Health Belief Model framed the questions relevant to the perceived barriers, perceived benefits, perceived susceptibility, cues to take action, and likelihood of a behavior change to access medical and mental health care.

Significance of the Study

According to the Fenway Institute, "there is an abundance of disparities in research, information, medical data, mental health data, and understanding of the

transgender community, especially in the South (Association, 2019).” It is estimated that 1.4 (0.6%) million adults in the US identify as transgender (Flores, 2016). By 2016, the percentage of people in the US identifying as transgender doubled from initial counts of 0.3% of the US population in 2011 (Flores, 2016; Gates, 2011). The transgender community faces barriers that include difficulty finding appropriate gender affirming medical and mental health providers that are knowledgeable in transgender healthcare including hormone replacement therapy (HRT). The burden to finding these affirming medical and mental health providers is greater in rural areas. The transgender population is at a high-risk of becoming susceptible to health inequities in the healthcare field (MacDonnell, 2012). Consequently, this distinctly marginalized population is faced with disproportionate levels of poverty, substance abuse, homelessness, and health disparities compared with other demographical populations in the US (Flores, 2016). The transgender population is under-researched despite reportedly high rates of Human Immunodeficiency Virus (HIV) and sexually transmitted infections (STIs). Further, the transgender community has not been systematically reviewed for substantial health disparities including HIV and STI, and data for transgender males is limited (Van Gerwen, 2019).

For a transgender male, the goal of gender affirming therapies is to achieve serum testosterone concentrations in the cis-male reference range (Irwig, 2017). For the transgender male, the testosterone effects include increased facial and body hair including a beard and mustache, deepening of the voice, decrease in body fat that becomes muscle with an increase in overall body strength. Transgender males report an increase in sexual desire, a clitoral enlargement, and cessation of menstruation. As a result of the listed body changes, a transgender male can experience a decrease in gender dysphoria and the

side effects of gender dysphoria that could include anxiety, depression, suicidal thoughts and/or actions, and stress (Irwig, 2017). The gender-affirming therapies, such as HRT, needed to achieve the desired goals may have negative side effects that include acne, alopecia, increase in LDL (low-density lipoprotein) cholesterol numbers including increased triglycerides, and an increase in systolic blood pressure (Irwig, 2017).

The visibility of the transgender community has evolved over time. This is multifactorial and likely due to a number of public figures having come out as transgender in the media, television, and film, coupled with an increase in violence targeting transgender people, the release of laws aiming either to protect or to discriminate against the transgender community (depending on the jurisdiction and geography), and widespread political discourse and misinformation pertaining to transgender identity and social norms of identity. Though the transgender community is often referred to collectively as an aggregate whole, LGBTQ, the transgender community exhibits its own diversity. Lesbian, Gay, and Bisexual (LGB) refers to an individual's sexual orientation and who you are sexually attracted to (Kaplan, 2012). Transgender refers to one's gender identity and how an individual identifies on the spectrum of male or female (Kaplan, 2012).

Accordingly, this dissertation sought to describe and understand the physical and mental health needs and health-seeking behaviors specific to the transgender male community so that health education and promotion efforts can be developed to best meet the particular needs of this community. An underlying assumption of this project framework is that the transgender male community in Alabama is underserved and underrepresented by data, both of which problems are deepened by a lack of quality research on the unmet needs of this community.

Presently, most studies and research on transgender males have been focused on larger cities such as New York, San Francisco, and Boston (Stone, 2018). This marginalized population is often understudied, such that their physical and mental health needs are largely unknown to medical and mental health providers, researchers, and community leaders. The information that is available is constrained by two main factors: (a) a heavy focus on metropolitan areas and (b) limited attention to transgender individuals in the South. This study is the first time an extensive data collection and evaluation has been conducted with the transgender male population in the South that includes medical and mental health data in a LGBTQ medical and mental health facility. As MCWC is Alabama's first and only LGBTQ medical and mental health facility, this study will focus on the patients that attend the MCWC for HRT (hormone replacement therapy) and mental health services.

Findings from this study can inform future theory-based interventions to support the physical and mental health needs of the transgender male population. Further, it can help create informed public health campaigns to support transgender males who are not currently receiving medical and mental health care. This study is particularly timely given the policies that have been enacted during the implementation of the study as well as the medical and mental health disparities that have been further illuminated during the COVID-19 pandemic.

The study has a broad application for community-based organizations, health departments, mental health providers, LGBTQ clinics in the South and around the country who are currently providing services and care for the transgender male population. This study can also provide a foundation of information and knowledge for community-based

organizations, health departments, mental health providers, clinics in the South and around the country who are not currently providing care and services to the transgender male population but desire to be an affirming site. Disseminating the information to key stakeholders can help elucidate new and different opportunities for supporting the transgender male population as well as support potential programmatic changes, implement affirming polices, and culture.

Purpose of the Study

The purpose of this dissertation was to explore physical and mental health disparities in the transgender male community in a Southern community-based medical LGBTQ organization, the Magic City Wellness Center (MCWC) in Birmingham, Alabama, through a convergent mixed method design. The three specific aims of the study were to:

- **Aim 1:** Explore physical health disparities in the transgender male community as compared with the general population.

  Hypothesis: There will be elevated rates of physical adverse health conditions in the transgender male population compared with the general public including hypertension, diabetes, tobacco use, obesity, high cholesterol, and an absence of gynecological exams.

  Approach: Conduct medical intake chart reviews of 130 transgender males who sought services at MCWC between January 4, 2016 – July 31, 2019. The scope was limited to medical provider notes and blood work data obtained in the first appointment at the MCWC. Additional medical and

mental health data were not reviewed in the retrospective chart study. The blood work outcomes were compared to the *2018 Behavioral Risk Factor Surveillance System (BRFSS)* dataset.

- **Aim 2**: Explore the mental health disparities in the transgender male community as compared with the general population.

  Hypothesis: There will be elevated rates of adverse mental health conditions and experiences in the transgender male population compared with the general public, including depression and current or history of alcohol or other substance abuse.

  Approach: Conduct medical intake chart reviews of the 130 transgender males who sought services at MCWC between January 4, 2016 – July 31, 2019. The scope was limited to medical provider notes and blood work data obtained in the first appointment at the MCWC. Additional medical and mental health data were not reviewed in the retrospective chart study. The mental health data were compared to the *2018 Behavioral Risk Factor Surveillance System (BRFSS)* data.

- **Aim 3**: To explore the barriers and facilitators to the transgender male community seeking medical and mental health services.

  Approach: Conduct individual interviews with transgender males who are current or past medical and mental health patients of MCWC as well as those who have never received medical or mental health services at MCWC. The Health Belief Model served as the basis for the interview questions.

Terminology

2018 Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is the nation's premier system of health-related telephone surveys that collect state-level data about US residents and is the largest collection of health and behavioral information. The BRFSS will be used as the basis for data comparison (Prevention, 2014).

Asexual individuals do not have sexual feelings or experience physical attraction to other individuals (F. Health, 2010).

Birmingham AIDS Outreach (BAO) is a non-profit 501C3 organization and the owner of the MCWC. MCWC is Alabama's first and only LGBTQ medical and mental health facility.

Cisgender person is someone whose sex assigned at birth is the same as gender identity or expression (cis-male or cis-female) (F. Health, 2010).

Dead name is the assigned birth name and not the name an individual chooses after identifying as transgender (F. Health, 2010).

Gender affirming therapies may describe both hormone replacement therapies, mental health counseling, physical health, and gender affirming surgical procedures (F. Health, 2010).

Gender Dysphoria, the Diagnostic and Statistical Manual of Mental Disorders (DSM–5) term for gender identity disorder and is the official psychological term applied to categorize the mental state of a transgender individual (F. Health, 2010).

Gender expression is the external view of gender identity that includes dress, make-up, and hair (F. Health, 2010).

Gender identity is a person's innate, deeply-felt psychological identification as a man or woman, which may or may not correspond to the person's external body or assigned sex at birth (F. Health, 2010).

Gender non-conforming or *gender non-binary* is an expression that is neither masculine nor feminine (F. Health, 2010).

Gender queer individuals do not identify with either heterosexual or ~~the~~ LGBTQ norms (F. Health, 2010).

Hormone replacement therapy (HRT) female to male, also known as masculinizing hormone therapy, is a form of hormone therapy and sex reassignment therapy which is used to change the sexual and physical characteristics of transgender people from feminine to masculine (F. Health, 2010).

Intersex individuals are born with both male and female genitalia or genitalia that are not clearly male or female (F. Health, 2010).

LGBTQIA (Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, and Asexual) or *LGBTQ* (Lesbian, Gay, Bisexual, Transgender, Queer), are acronyms used to identify a group of individuals who do not identify with gender, sexual, or traditional norms of identification (Fenway Health, 2010).

Magic City Wellness Center (MCWC) is Alabama's first and only LGBTQ medical and mental health provider.

Non-occupational Post Exposure Prophylaxis (nPEP) is prescribed within 72 hours after an exposure to HIV with a goal of preventing the transmission of the virus (Outreach, 2019a).

Pre-exposure prophylaxis (PrEP) is a daily pill taken by high-risk HIV-negative individuals to prevent the transmission of HIV (Outreach, 2019a).

Sexual orientation is a person's enduring physical, romantic, emotional, or spiritual attraction to another person and should be distinct from sex, gender identity, and gender expression (Fenway Health, 2010).

Transmasculine is a term used for individuals who were assigned female at birth but identify with masculinity more than femininity (Fenway Health, 2010).

Transgender is an umbrella term for any individual whose gender identity and/or gender expression is different from assigned sex at birth (F. Health, 2010). Transgender individuals may or may not alter their bodies with surgery or HRT. A transgender individual can pursue bodily changes through surgery and HRT to align physical characteristics with one's personally experienced gender identity (Fenway Health, 2010).

Qualitative Research compiles information which can be observed but not measured, such as language; qualitative data is descriptive and regards phenomena (Psychology, 2019).

Quantitative Research compiles information about quantities, and, therefore, numbers, (Psychology, 2019).

Queer is a term embraced by youth and young adults that encompasses everyone who identify along the LGBTQAI spectrum (Fenway Health, 2010).

Definitions and words that have been used in past research and publications that are commonly understood as outdated, stigmatizing, offensive, or inaccurate include: *transsexual, transvestite, cross-dresser, homosexual, sexual preference, preferred pronoun,* and *transgendered*.

Organization of the Dissertation

This dissertation is organized into five chapters. Chapter One contains the introduction of the research study, significance and purpose of the study including the specific aims, important terminology, assumptions, limitation, and delimitations. Chapter Two provides a detailed literature review as it relates to the physical and mental health disparities in the transgender male population. The theoretical conceptual framework is described as it relates to the Social Ecological Model and the Health Belief Model. Chapter Three explains the methodology used to examine the physical and mental health disparities in the transgender male population, as well as the role of the researcher, the data collection process, and the eligibility participants data for the research. Chapter Four presents the research findings, and Chapter Five provides a thorough discussion of the research findings, their implications, lessons learned, and recommendations.

CHAPTER 2

LITERATURE REVIEW

Chapter Two provides details introducing the theoretical framework for the dissertation. It also provides an overview of the physical and mental health disparities in the transgender male population through a literature review of scholarly and community resources.

Overview

Transgender people face numerous health disparities as well as stigma, discrimination, and lack of access to quality care (VerywellHealth, 2019). A transgender male may have past experiences of trauma including domestic/partner violence, transgender discrimination at work, and a lack of family acceptance. This systematic lack of support can impact a transgender male's ability to trust people with their gender identity, medical and mental health needs, and find affirming providers (MacDonnell, 2012). A major limitation in the study of the transgender male population and access to published data is the lack of research studies, especially long-term studies and randomized control trials (Irwig, 2017). This lack of research is due to difficulty recruiting the transgender male population, finding adequate sample numbers, and an inability to follow-up with the population (Irwig, 2017).

Significant transgender male-specific research including data collection of diabetes, STI, HIV, obesity, depression, high cholesterol, and hypertension, simply has not been conducted (MacDonnell, 2012). Reliable qualitative and quantitative data from the transgender population in general is scarce, particularly regarding overall health, HIV

rates, STI rates, homelessness, shelter numbers, incarceration status, substance abuse, and mental health diagnosis. An extensive literature search for relevant transgender male research in Alabama and the South was performed using search keywords *transgender male, Alabama, Southern, South, mental health, HIV, STI, depression, diabetes, hypertension, high cholesterol, obesity,* and *physical disparities*. These search keywords failed to reveal any quality research studies. During the research timeframe of this dissertation, *Prevalence of STIs and HIV in transgender women and men: a systematic review* was published and noted that STIs and HIV in the transgender population had not been systematically reviewed (Van Gerwen, 2019). The researchers compiled all laboratory HIV and/or STI positive tests for the last 50 years from 32 sites in the U.S. in the transgender populations. They concluded that the literature pertaining to HIV, STIs, and the transgender population focused primarily on transgender women, and the transgender men data was lacking (Van Gerwen, 2019).

An important barrier to collection of accurate qualitative and quantitative data is the current political climate and rhetoric pertaining to the transgender community, as well as conversations around gender identity, gender expression, and pronouns. Moreover, definitions of *transgender* appear to change frequently and are often wielded inaccurately by elected officials and other personalities in public media. Consequently, qualitative and quantitative data collected merely one year ago on transgender individuals is already outdated and outmoded while containing commonly understood terminology no longer accepted such as *transgendered, transvestite, transsexual,* and *cross-dresser*. These barriers to data collection and changing cultural and political climates limit comparison of current data and trends with previously collected information.

Physical and Mental Health

The male and female transgender community experiences a higher rate of social and economic marginalization, physical abuse, and sexual abuse as compared to the general public (Equality, 2012). The transgender community is resistant to seek physical and mental health care, and 48% of transgender men have delayed or avoided preventive health care such as pelvic exams or STI testing out of fear of discrimination or lack of an affirming provider (Equality, 2012).

Alarmingly, the transgender community has higher incidences of STIs, HIV, domestic violence, and health disparities (Office of Disease Prevention and Health Promotion, 2019). These disparities can lead to mental health issues such as depression, anxiety, and suicide and may result in the transgender community being less likely to engage in full time employment with health insurance benefits as compared to the LGB and heterosexual population (Office of Disease Prevention and Health Promotion, 2019). A transgender study facilitated by Fenway Health, located in Boston, Massachusetts, found that 65% of all transgender individuals surveyed have reported experiencing discrimination; 19% are hate violence survivors; 62% have depression; 41% have attempted suicide; 30% smoke; and 26% abuse alcohol and drugs (F. Health, 2015).

The transgender population has a significantly higher risk for acquiring HIV, and, further, evaluation of the results of over nine million Centers for Disease Control and Prevention (CDC) funded HIV tests revealed that transgender women had the highest percentage of confirmed HIV positive test results (2.7%) of any gender category (Pitasi MA, 2017). According to the CDC, HIV infection rates for the transgender community is four times higher as compared to the general population (Equality, 2012). Significant

HIV risk factors have been associated with transgender men, such as lack of access to intramuscular needles for testosterone injections, unprotected sex, and beliefs within the community that they are not at risk of infection (Hsieh, 2005). HIV studies have concluded that transgender men who have sex with men may have a higher HIV prevalence than cisgender males and females (Reisner, White, Mayer, & Mimiaga, 2014; Sevelius, 2009). According to CDC, over half of transgender men with diagnosed HIV infection had no identified or reported risk which suggests that research is needed to understand HIV risk behavior among transgender men, especially among those who have sex with other men (Prevention, 2019a).

Specifically, the sexual health of transgender men has not been well studied, especially those who have sex with cisgender men and, consequently, are at higher risk for acquiring HIV and STIs (Prevention, 2019a). A lack of affirming providers, lack of transgender medical and mental health providers, and a fear of the unknown within the medical and mental health providers is a significant barrier to care for transgender individuals. In fact, 60 to 70 percent of the transgender male and female population do not regularly access medical care for a variety of reasons including the cost of medical care, the cost of treatment, and lack of an affirming medical and mental health providers (VerywellHealth, 2019). As a result, many transgender males and females resort to HRT through illegal medical practices and obtain prescriptions from unregulated and illegal sources (VerywellHealth, 2019). The *US Transgender Study* further records that 25% of those who completed the survey did not access medical care due to fear of a non-affirming medical provider; 1/3 that did access medical care reported having a negative experience related to their transgender identification such as having treatment denied, and they

also reported that they had to teach their medical provider about transgender health care (Institute, 2017).

Similarly, it has been concluded that cancer and other health disparities are elevated for any individual who may struggle with mental health issues, are experiencing homelessness, facing discrimination, and stigma, thus putting the transgender population at a higher risk (Pitasi MA, 2017). Transgender males are at a higher risk for cancer, specifically, those related to gynecologic cancer (Institute, 2017). Although there are screening guidelines for hereditary gynecologic cancers to aid with prevention and early detection of these cancers, there are no clear guidelines for those patients who identify as transgender (Parsons, 2018). In a study to improve cervical cancer screening rates in transgender men, researchers found nearly half of the participants had not completed a pap smear or screening for cervical cancer within the past three years ("Improving cervical cancer screening rates for transgender men ", 2017). It is also unknown the long term effects of HRT-triggered specific cancerous tumors that can grow in the body (McFarlane, 2018). These researchers also suggest that medical providers should conduct cancer screenings based upon the "presence of organs in transgender individuals rather than gender identity or hormonal therapy status (McFarlane, 2018)."

Additionally, the transgender male community has a higher rate of obesity than the average population (Flores, 2016). It is a common practice in the transgender male community to purposely gain weight especially in the stomach in order to give the body a "rounder look" with the goal of de-emphasizing breasts, hips, and waist (Musgrove, 2019). This weight gain, in combination with gender-affirming therapies, puts these indi-

viduals at a higher risk for strokes and blood clots. In 2016, 2,702 LGBT-identified participants participated in an online study to examine obesity in the LGBTQ community with 61% of the participants being diagnosed as being overweight or obese (Warren, 2016). The overweight and obese population were divided to six LGBT groups, cisgender lesbians, cisgender gay men, cisgender bisexual women, cisgender bisexual men, transgender women, and transgender men (Warren, 2016). The subgroup with the highest prevalence of overweight and obesity was found to be transgender men at 46.0% (Warren, 2016).

Another study was conducted to determine if gender dysphoria and body dissatisfaction in the transgender population increases susceptibility to eating disorders (Vilas, 2014). In this study, researchers followed individuals who were undergoing gender affirming therapies, They concluded that the transgender population consumed a higher number of calories as compared to the general population (Vilas, 2014). They also found that the transgender population consumes unbalanced food groups with meals consisting of saturated fats and cholesterol, noting that the combination of consumption of saturated fats and use of gender affirming therapies led to increased body fat and the transgender male group had a high percentage of obesity at 34.9%. (Vilas, 2014). According to the Alabama Department of Public Health (2019), Alabama had the third highest prevalence of Type II diabetes in the United States in 2013, with 12% of Alabama's adults having been diagnosed with Type II diabetes (A. P. Health, 2019).

The combination of gender affirming therapies and obesity also can lead to chronic or comorbid diseases such as diabetes, hypertension, and cardiovascular disorders (Vilas, 2014). At the 2017 annual meeting of the European Association for the Study of

Diabetes, researchers announced study results suggesting that the transgender population with diabetes taking HRT were more susceptible to diabetes complications (Kapsner, 2017). The study also noted that diabetes patients taking HRT had elevated levels of triglycerides, lipids, blood pressure, and incidence of obesity as compared to the general public. They acknowledged that the mechanisms of how gender affirming therapies impact blood glucose or elevate risk of diabetes are unclear, hormones increased modifiable risks associated with diabetes, and the management of diabetes in transgender patients has not been studied on a large scale (Kapsner, 2017).

Smoking and tobacco use, known risk factors for cardiovascular and lung diseases, have been studied in relation to LGBT health. The CDC utilized data from the 2009-2010 National Adult Tobacco Survey to compare current menthol cigarette smoking between LGBT (n = 2,431) and heterosexual/straight (n = 110,841) adults (Prevention, 2015). The CDC determined that the tobacco industry created marketing campaigns that specifically targeted the LGBT community (Prevention, 2015). The survey focused on menthol cigarettes as a popular type of cigarette due to the presence and taste of menthol rendering them easier to smoke. The CDC data demonstrate that LGBT smokers accounted for 36.3% of all smokers surveyed, compared to 29.3% of all surveyed smokers identifying as heterosexual (Prevention, 2015). Similarly, females who identified as LGBTQ accounted for 42.9% of all smokers compared to heterosexual/straight women at 32.4% (Prevention, 2015).

According to the CDC (2020), for the general public, having high blood cholesterol raises the risk for heart disease, the leading cause of death, and for stroke, the fifth leading cause of death (Prevention, 2020a). High-density lipoprotein (HDL) cholesterol is

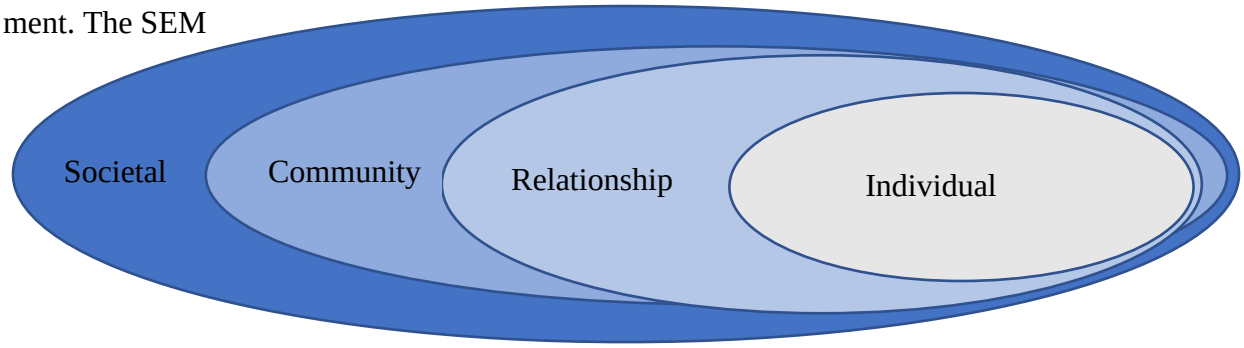
known as the “good” cholesterol because it helps remove other forms of cholesterol from the bloodstream. In 2015 – 2016, 18% of adults in the US age 20 and older had high HDL cholesterol levels (Prevention, 2020a). LDL (low-density lipoprotein), sometimes called “bad” cholesterol, makes up most of the body’s cholesterol and is an indicator of significant health issues including heart disease. According to the CDC, 31.7% of the adults in the US have high levels of LDL cholesterol; 29.5% have the condition under control with medication and medical visits, and 48.1% of adults are under medical care for the high LDL cholesterol condition (Altshul, 2020). Triglycerides are known as “fat in the blood”, and high levels can be linked to heart disease, liver, and pancreatic issues. From 2009–2012, the percentage of adults aged 20 and over in the US with elevated triglyceride was 25.1% (Carroll MD, 2015). Transgender males require preventative medical health screenings regardless of the gender identity including breast exams, mammograms, pap smears, and prostate cancer screenings. Fear, stigma, or lack of being asked questions concerning gender identify force a transgender individual to not disclose their sexual history and risk factors (Equality, 2012).

According to the Substance Abuse and Mental Health Services Administration, 5.8% of adults 18 and over abused alcohol (Administration, 2018). According to the Alabama Department of Public Health (2019), Alabama had the third highest prevalence of type II diabetes in the US in 2013, with 12% of Alabama’s adults having been diagnosed with type II diabetes (A. P. Health, 2019).

Theoretical Conceptual Framework

The Social Ecological Model

The Social Ecological Model (SEM) often has been used in health-related research to investigate the interaction between an individual and the individual's environment. The SEM



Source: (Prevention, 2020b)

Figure 1*:* The Stages of SEM

allows the researcher to gather information across multiple levels of influence (Glanz, Rimer, & Viswanath, 2015) (see Figure 1). The SEM has levels of subsystems that guide, support, and influence human development and health behavior (Glanz et al., 2015). Particular to this study, these subsystems may impact the transgender male population and barriers to obtaining affirming physical and mental healthcare in the following ways:

1. *Individual factors,* such as biological and personal history, could be barriers to accessing medical and mental health services (Prevention, 2020b). For example, an individual might have a lack of knowledge of community resources, a belief that affirming physical and mental health care is not a possibility, or an attitude that medical procedures are not necessary, and each could influence a transgender individual's decision to seek medical

and mental health care. Further, individual-level influences, such as biological and personal history factors, may impact an individual's ability to be a medical self-advocate due to alcohol abuse, depression, or childhood experiences (Prevention, 2004).

2. *Relationship factors* such as close relationships and communications with other people, social networks, family, social support, work, and friendship groups can either provide social support or create barriers to interpersonal growth that promotes and encourages healthy behavior and engagement in physical and mental health supports (Prevention, 2004) (Prevention, 2020b).
3. *Community factors* include schools, social settings, social media, workplace, neighborhoods, and friend networks and can influence a transgender male's decision to seek medical and mental health services. Social networks, social media, transgender male support groups, and community bases organizations create communities that reduce social isolation and advocate for healthy behaviors (Prevention, 2020b).
4. *Societal* factors create a positive environment to seek medical and mental health care. These societal factors could include health care policies, transgender specific laws, access to economic opportunities, and education (Prevention, 2020b)

The Health Belief Model

This dissertation combines the Health Belief Model (HBM) with the SEM at the individual level of influence. The HBM was developed by Godfrey Hochbaum and Irwin

Rosenstock in the 1950s as part of the US Public Health Service (Glanz et al., 2015). The HBM was created as a result of a failed government attempt to offer free tuberculosis (TB) health screenings (Glanz et al., 2015). Researchers observed that an individual would agree to a free TB test if motivated by a perceived risk of TB and perceived benefits of knowing TB status (Glanz et al., 2015). The HBM assumes that people are motivated in thoughts and actions to take the best health-supporting action if they feel the health behavior can be addressed, the new behavior can address the issue in a positive way, and that they believe they can make a health behavior change (Glanz et al., 2015). The HBM concepts include perceived barriers, perceived benefits, perceived susceptibility, cues to take action, and likelihood of a behavior change to access medical and mental health care (See Figure 2).

The following conceptual questions guide the HBM (Glanz et al., 2015):

1. Does the individual have a perception of the risk including perceived susceptibility, and do they understand the severity of the behavior including medical, social, and physical consequences?
2. Modifying factors could (a) influence behavior including age, personality, socioeconomic status, knowledge, and perceived threat of disease and (b) influence an individual's cue to action. Does the individual have the information about the behaviors and are they ready for a change?
3. What is the likelihood an individual will change their behavior? Do the perceived benefits of making a change outweigh the perceived barriers an individual faces to make a behavioral change? Can the individual overcome the perceived barriers to make a behavioral change?

For this study, the HBM guided the exploration of the physical and mental health disparities of the transgender male population specifically related to: (a) exploring their beliefs about the chances of having a physical or mental health condition. (perceived susceptibility); (b) their beliefs about the seriousness of having medical and/or mental health issues and health care are for transgender males (perceived severity); (c) their perceptions about the benefits of engaging in medical and/or mental health care in reducing their chances of having a physical or mental health condition (perceived benefits); (d) their perceptions of the obstacles for transgender males in accessing medical and/or mental health care (perceived barriers); along with the (e) mechanisms that would help transgender males seek medical and/or mental health services (cues to action) and (f) their confidence in seeking medical and/or mental health services (self-efficacy) (Glanz et al. 2015). As such, this study explores the multiple layers of the SEM with the HBM at the individual level to understand the barriers and facilitators to the transgender male community seeking medical and mental health services.

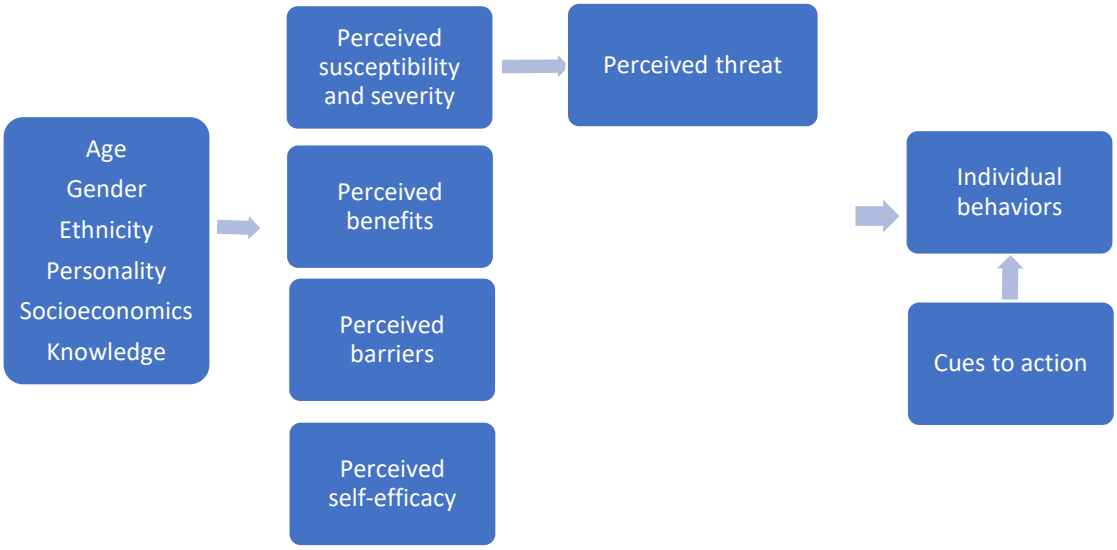


Figure 2: Health Belief Model *Source: (Glanz et al., 2015)*

Summary

There is a paucity of research on the transgender male population, and this study is an opportunity to provide insight to bridge the gap between the transgender male population and the medical and mental health providers. There is a need in the medical and mental health field for affirming providers to adequately evaluate the risk factors of the transgender male community (Mayer KH, 2008). Through this research, we can explore the health care and mental health disparities among the transgender male community through the lens of the HBM and SEM. This research will set the foundation for future research, health behavior campaigns, and systematic changes for clinics, medical and mental health providers, and community-based organizations wanting to serve the transgender male community.

CHAPTER 3

METHODOLOGY

The purpose of this convergent mixed method study was used to examine the physical and mental health disparities in the transgender male population in a Southern community-based medical LGBTQ organization, the Magic City Wellness Center (MCWC). This chapter discusses the research design, rationale for mixed methods approach, setting and location, data collection methods for quantitative and qualitative data, and the data management and analysis. This research project was approved by the University of Alabama at Birmingham (UAB) Institutional Review Board (IRB) and the dissertation committee before any data were collected.

Research Design

Mixed Methods Approach

To adequately answer the questions posed in this research study, a mixed method design was employed. At a very basic level, mixed methods research is defined as a research study that utilizes both quantitative and qualitative methods to arrive at the study conclusions (Greene, 1989). A mixed method research platform provides the opportunity to integrate qualitative and quantitative data and explore the issues more fully, providing greater detail and applicability to the specific context of the study population. Ultimately, this can potentially lead to greater understanding the area and phenomenon of interest.

In this dissertation, a convergent mixed methods approach was used (See Figure 3). In a convergent mixed methods design, “integration involves merging the results from the quantitative and qualitative data so that a comparison can be made and more complete

understanding emerge than what was provided by the quantitative or the qualitative results alone (Creswell, 2016)". This approach allowed for gathering quantitative data from the MCWC medical charts and BRFSS as well as qualitative data via individual interviews with transgender male individuals. The integration of the data provided a rich, complementary understanding of the physical and mental health disparities and experiences of the transgender male population.

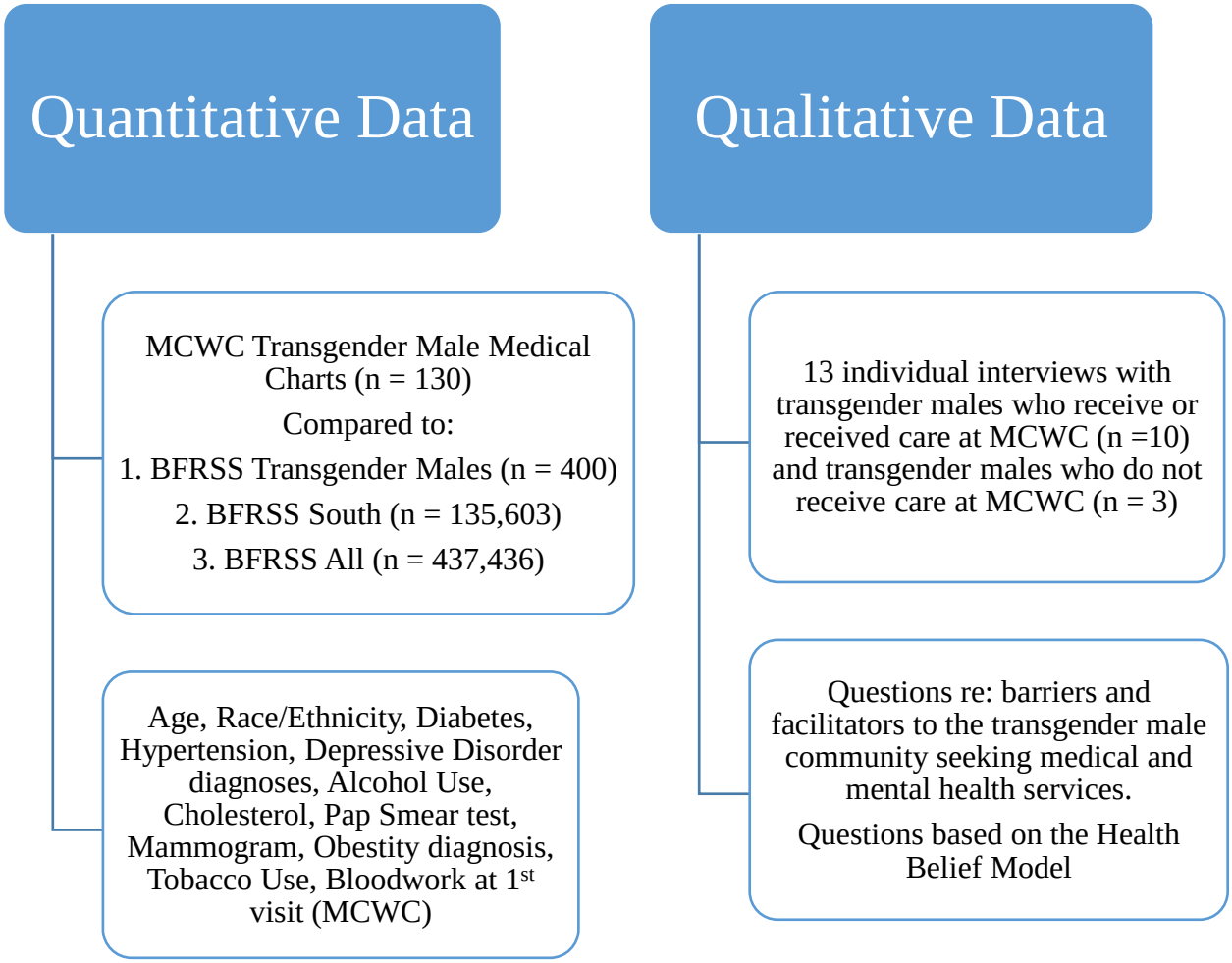


Figure 3: Convergent Mixed Methods Approach

Setting: Birmingham AIDS Outreach/Magic City Wellness Center

Incorporated in 1985, Birmingham AIDS Outreach (BAO) was the first nonprofit in Alabama dedicated to providing HIV prevention, education, and services for persons living with HIV. The mission of BAO is to enhance the quality of life for people with HIV (PWH), at-risk, affected individuals, and the LGBTQ community through outreach, age-appropriate prevention education, and supportive services. For over 34 years, BAO has provided caring, supportive, and culturally sensitive and relevant services to individuals within and beyond the Birmingham-Hoover Metropolitan Statistical Area. BAO programs for PWH include a food bank, nutritional supplements, and food vouchers; legal services; clothing and household items closet; transportation; medication assistance; medical items; GED classes; personal hygiene supplies; case management; pet food; pet spay/neuter program; retention in medical care projects; mental health; and support groups. HIV educational programs including HIV 101 training modules for different audiences; HIV/STI testing and treatment; PrEP outreach and referral; nPeP emergency testing and treatment; couples testing and mental health; and community outreach (Outreach, 2019a).

In 2015, BAO opened the Magic City Acceptance Center (MCAC), which is a LGBTQ youth center providing support and social services such as case management; book club, and library; Transgender Legal Name Change Clinic; art classes; talent shows; a resource center; drop-in hours; support groups and counseling; movie nights; health and wellness workshops; photography exhibition of LGBTQ youth entitled *Family Matters*; HIV/STI testing, referral to treatment, and education; skills-building classes; and clothing swap nights. Since April 2014, MCAC has provided programs to over 1,000 youth with

90% identifying as transgender, non-gender conforming, or non-binary (Outreach, 2019b).

In January 2016, BAO initiated targeted services for the transgender community through its subsidiary, the Magic City Wellness Center (MCWC), Alabama's first LGBTQ medical and mental wellness facility. MCWC is staffed with a full-time medical director who is a licensed doctor of medicine (MD); one part-time licensed MD; two certified registered nurse practitioners; a medical assistant; two associate licensed counselors and a licensed professional counselor; four social workers; and four administrative staff. MCWC staff offer and provide affirming services for the LGBTQ community, which include free mental health counseling and support groups; primary care medical services; STI treatment and testing; HRT; Pre-exposure prophylaxis (PrEP) enrollment and retention programs; hepatitis C treatment and case management; social events; and support groups. Since COVID-19, all counseling and support groups have been offered via telecounseling.

MCWC serves patients who identify across a spectrum of gender identities. For example, 34% of all MCWC patients screened in July 2019 identified as transgender male, transgender female, or non-binary (See Figure 4).

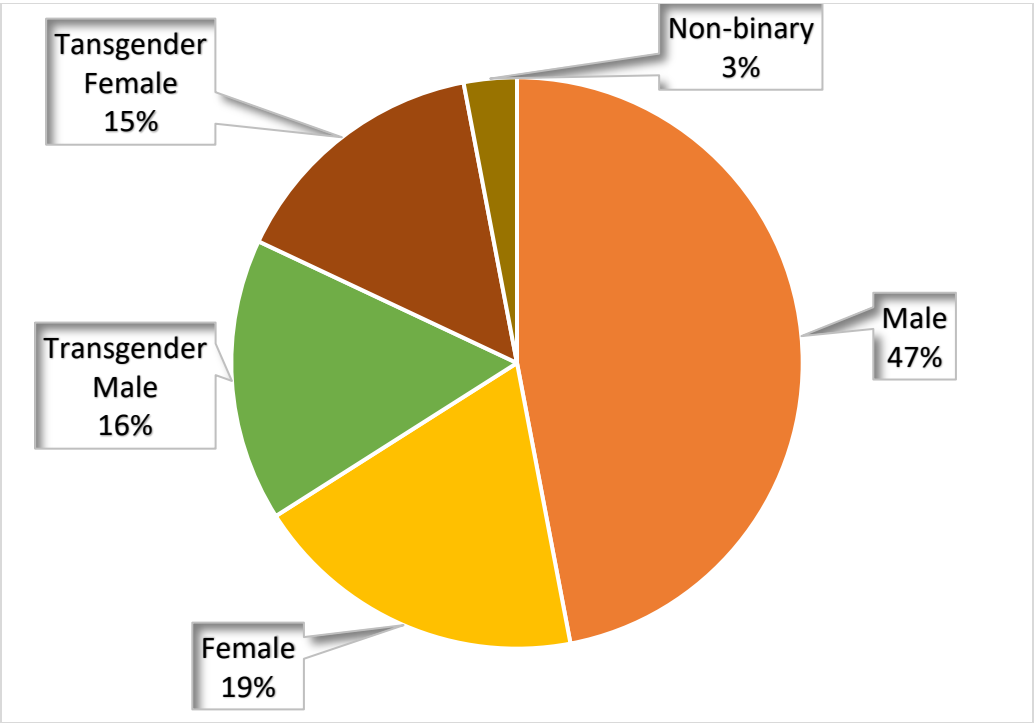


Figure 4: January 4, 2016 – July 31, 2019 MCWC Services by Gender

Source: (Center, 2020)

Even in their infancy, MCAC and MCWC successfully reached a theretofore hidden population of transgender individuals in Alabama. During its first year in 2016, MCWC served 101 transgender individuals with medical care that included gender-affirming therapies, mental health counseling, and support groups. Patients at MCWC hail from all over the region including parts of Alabama outside Jefferson County (Birmingham-Hoover) and even other states such as Florida, Tennessee, Mississippi, and Georgia (MCWC, 2019). Between the period of January 4, 2016 – July 31, 2019, the MCWC has served 330 unique transgender individuals and 68 non-binary individuals while averaging 84 HRT/gender affirming therapy appointments per month (MCWC, 2019).

Ethical Considerations

It is important to note that the researcher is the CEO of BAO, MCAC, and the MCWC. The researcher adhered to all human subjects protections and scientific integrity to ensure that her role did not impact the participants nor compromise the scientific integrity. The following precautions were approved by the UAB IRB and enacted:

Chart Review

The Director of the MCWC, who is IRB certified and approved to serve on the study team, pulled the data on the medical charts from the 130 transgender male intake charts from January 4, 2016 – July 31, 2019. Each chart was assigned a non-identifiable number (1 - 130). The MCWC Director hand-delivered the non-identifiable patient data to the researcher. At no time did the researcher have access to the Advance MD (medical office software), medical chart number, client name, or other identifiable information. The MCWC Director created a spreadsheet that contained the non-identifiable number (1 - 130) as it corresponded to the Advance MD medical chart number on his password protected computer. A research assistant assisted with the quality assurance by reviewing 25% (n = 32) of the charts to ensure accuracy and efficacy.

Individual Interviews

The individual interviews were conducted by the researcher and a research assistant. The research assistant conducted the interviews with those who are current or past medical and/or mental health patients of MCWC, whereas, the researcher only conducted interviews with those who have never received medical or mental health services at MCWC. No identifying information was collected nor stored for the interview partici-

pants. The individual interview recordings are stored on the BAO secured server. The recordings were transcribed by a professional transcribing company, rev.com (REV, 2020). The transcribed recordings and code book are stored on the BAO Health Insurance Portability and Accountability Act (HIPAA) compliant server with a protective passcode. The transgender male individual interviews occurred in person and via phone. Information gathered during individual interview cannot be linked to any specific individual.

Confidentiality

Confidentiality was maintained per the policies and procedures of BAO. All retrospective medical chart data and individual interview transcripts were maintained on a password protected computer. At the conclusion of this research process, all data will be destroyed in accordance with BAO policies and procedures.

Data Collection

Quantitative Data

MCWC Chart Reviews. Medical charts at the MCWC were extracted for the first medical intake appointment for each of the 130 transgender male patients who visited MCWC from January 4, 2016 – July 31, 2019 that met eligibility criteria. Additionally, the blood laboratory results from their first intake appointments were extracted. If the initial bloodwork was taken on a different day than the intake appointment, the bloodwork results were included in the data pull. The medical charts include intake paperwork completed by the patient, the medical diagnosis codes entered into the electronic medical record by the medical provider, bloodwork results, and the session notes written by the medical provider. The past medical history in the intake appointment is based on the patient's

report and includes the patient's understanding of a medical diagnosis and terminology. The specific medical data that were abstracted include: age, race/ethnicity, transgender identification, past or current diabetes diagnosis, hypertension, past self-reported or current diagnosis of depressive disorder, alcohol use, cholesterol, pap smear test, mammogram, obesity diagnosis/body mass index (BMI), and current tobacco use.

At the first medical appointment, all transgender male patients have the following bloodwork drawn:

- *Complete Metabolic Panel (CMP)*, to determine if blood levels, kidneys, and liver proteins are in a normal range. The test includes blood sugar (glucose) levels, albumin (a blood protein), total blood protein, electrolytes, sodium, potassium, calcium, chloride, carbon dioxide, blood urea nitrogen (BUN), creatinine, alkaline phosphatase (ALP), alanine aminotransferase (ALT), aspartate aminotransferase (AST), and bilirubin.
- Complete *blood count* with platelets to measure the cells that make up blood composition.
- *Thyroid* stimulating hormone (TSH) to ensure the thyroid gland is working correctly.
- *Lipid profile* to determine the lipid levels or fat in the blood that could lead to a heart attack or stroke.
- *Hemoglobin A1C* to diagnosis type 1 or type 2 diabetes or to determine how well the patient is maintaining a diabetes diagnosis.
- *HIV* to determine if the patient is HIV-positive.

- *Pregnancy test* if the patient has a uterus to determine if the patient is currently pregnant.
- *Luteinizing hormone* (LH) *blood* test to measure the amount of LH released by the pituitary gland.
- *Estradiol* levels to determine the amount of the female sex hormone in the body.
- *Hepatitis C* if the patient was born between 1946–1964 to test the hepatitis C status of the patient.

Inclusion / Exclusion Criteria. The medical charts were drawn for transgender male patients at the MCWC if: (a) they were a past or current patient at the MCWC who identifies as a transgender male and (b) 19 years of age or older at the time of their first medical appointment at the MCWC. Medical charts were not drawn for MCWC patients if:

- at the time of their first medical appointment at the MCWC patients were under the age of 19. Although the age of medial consent in Alabama is 18, it is customary MCWC clinic medical practice to not start HRT until individuals reach the age of 19, or
- the patient did not have blood drawn associated with the first medical appointment at the MCWC, or
- the patient did not complete their intake paperwork at the first medical appointment at the MCWC, or

- the patient did not identify with any gender and used terminology to describe gender such as *genderqueer*, *queer*, *transmasculine*, or *non-binary*.

The data extracted from the MCWC medical charts were compared to the data obtained from the 2018 BRFSS.

Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is the nation's premier system of health-related telephone surveys that collect state-level data about US residents and is the largest collection of health and behavioral information (Prevention, 2014). In 2018, a total of 437,436 individuals completed the BRFSS Survey, which is often used in research for comparison. The BRFSS objective is to collect uniform state-specific data on health risk behaviors, chronic diseases and conditions, access to health care, and use of preventive health services related to the leading causes of death and disability in the US (Prevention, 2018b). Unlike most surveys, transgender identification of the participants is included and transgender data are collected.

In 2018, the total number of individuals who answered the question *Do you consider yourself to be transgender?* was 437,436, with 0.17% (n = 400) individuals identifying as transgender female-to-male and 0.17% (n = 387) identifying as transgender male-to-female (Prevention, 2018b). Age and race/ethnicity were recorded to provide demographic data for the BRFSS participants. The MCWC medial chart data was coded and compared to the BRFSS coding.

MCWC and BRFSS Data. The following details specific information for the BRFSS data and how the MCWC data coding compares.

- *Diabetes:* The 2018 BRFSS participants were asked if they had ever been told they have diabetes (Prevention, 2018b). The MCWC data collected was divided into a current or past diagnosis of diabetes as indicated by the notes in the medical chart and/or bloodwork results.
- *Depression:* The 2018 BRFSS participants were asked *if they had ever been told they have a depressive disorder (including depression, major depression, dysthymia, or minor depression)* (Prevention, 2018b). The MCWC data collected was divided into a current or self-reported past diagnosis of depressive disorder.
- *Alcohol:* The 2018 BRFSS participants were asked if they were *heavy drinkers*. *Heavy drinking* was defined as adult males having more than 14 drinks a week and adult women having more than 7 drinks a week (Prevention, 2018b). It was not noted in the BRFSS if the transgender males were given the option to answer the question based upon the adult male or adult women criteria. The MCWC data collected was based upon medical provider notes in the medical records regarding past or current alcohol abuse or heavy drinking.
- *Gynecological:* The 2018 BRFSS participants were asked three questions related to gynecological exams: *have you ever had a mammogram?*, *how long since your mammogram?*, and *have you ever had a pap test?* (Prevention, 2018b). The MCWC data was based on whether the medical provider made a note in the medical records of past or current mammogram and pap test.

- *Obesity:* The 2018 BRFSS participants were asked for their BMI. The BMI was divided into four categories: *Underweight, Normal Weight, Overweight, Obese* (Prevention, 2018b). The participants could also answer *Don't know/Refuse*. The MCWC data collected was based on medical provider notes in the medical records regarding obesity or BMI. The BMI was calculated using a rate of weight in kg/(height in m)^2.
- *Hypertension and High Cholesterol:* The 2018 BRFSS participants were not asked about a hypertension or high cholesterol diagnosis. The MCWC retrospective data chart review obtains bloodwork results pertaining to hypertension and high cholesterol. This bloodwork diagnosis can be used as an overall proxy marker of physical health of the qualitative medical chart review patients. For this study, lab reports containing low-density lipoprotein, high-density lipoprotein, and triglycerides information was collected and reported.

Qualitative data

Overview. To provide a deeper understanding of the barriers and facilitators to transgender male patients receiving medical and mental health services, individual interviews were conducted with transgender males. Interviews were conducted with transgender males who receive medical and/or mental health services at MCWC and transgender males who do not receive medical and/or mental health services at MCWC.

The individual interview questions and responses provide valuable qualitative information that can inform future studies, future directions, and capture significant data for creation of a public health campaign.

Methods. Template analysis was used in parallel with the phenomenological approach to evaluate the qualitative data. As required in template analysis, the individual interviews were transcribed and coded by the researcher. The parent codes were created using the constructs of the Health Belief Model and summarized themes of the interviews. Parent codes were broken down into child codes if themes needed to be additionally explored or modified (Huddsfield, 2020). The researcher gathered information from the qualitative interviews through experiences of the individuals, or phenomenologically (Gill, 2014). The foundation of phenomenological philosophy details that a researcher must "grasp" the point of view from the interview and not bring in outside bias or opinions (Gill, 2014). "Phenomenologists' ultimate aim is to understand an experience, as far as possible, as opposed to using this understanding to predict or explain behavior (Gill, 2014)."

Trustworthiness of the qualitative data involved credibility, transferability, dependability, and confirmability (Lincoln, 1985). The researcher is confident in the truth of the findings and has shown that the findings can be applies to other research involving the transgender male community (Lincoln, 1985). The qualitative codes were reviewed by the researcher and a co-investigator for consistency and maintained a high level of neutrality (Lincoln, 1985).

Procedures. The individual interviews occurred January 1, 2020 – June 30, 2020. The individual interviews lasted between 60 - 90 minutes. The questions asked during the

individual interviews explored the barriers and facilitators to the transgender male community in seeking medical and mental health services. The individual interview participants received a $20.00 gift card for their time. Interviews could occur in person or on the phone. Eight interviews were conducted in person, and five interviews were conducted via the phone. This study was approved to conduct interviews by phone, so the remaining interviews were conducted by phone during the COVID-19 pandemic. As previously noted, a research assistant conducted all of the interviews with those who are current or past medical and/or mental health patients of MCWC, whereas, the researcher conducted interviews with only those who have never received medical and/or mental health services at MCWC. Each individual interview was audio-recorded, deidentified, and subsequently sent to rev.com for transcription without identifying information.

Eligibility. To be eligible for participation in the qualitative individual interviews, individuals were 19 years or older and self-identified as a transgender male. Individual interview participants were informed of the research aims and study procedures, the informed consent process, and their rights as an interview participant.

It was not a requirement of the individual interview participants to be a past or present patient at the MCWC or any other medical facility. The goal was to have ten interviews with individuals who had not received medical or mental health services at MCWC and ten with individuals who had received past or current medical and/or mental health services at MCWC. To be eligible for the qualitative individual interview, an individual must meet the following criteria:

- must be 19 years or older;
- self-identify as transgender male;

- be able to understand informed consent; and
- speak English.

Individual interview participants were deemed ineligible to participate if they met any of the following criteria:

- were under the age of 19, or
- were unable to speak English, or
- did not self-identify as transgender male.

The individual interview participants completed the informed consent prior to the interview. As part of the consenting process, participants were informed that they had the right to leave the interview at any time and would receive the $20.00 gift card regardless if they stayed for the entire duration.

Recruitment and Screening. Recruitment occurred via a number of approaches. Initially, a recruitment flyer was created to highlight the details of the research study and contact information for those interested in participating. The recruitment flyer was posted on Facebook and Instagram for the MCWC, the MCAC, the Transgender Health, Empowerment, Affirmation, Learning (T-HEAL) project, and BAO. Further, the researcher also approached a number of transgender community leaders to "share" the recruitment flyer on their social media pages. Additionally, the recruitment flyer was posted in two private transgender male specific Facebook groups. Each interested individual called the MCWC phone number to be screened and determine eligibility. The following questions were asked to determine eligibility:

- Do you identify as transgender male?
- Are you over the age of 19?

- Do you speak English?
- Are you willing to participate in an individual interview concerning the barriers to medical and mental health care for transgender male individuals?
- Do I have your permission to call and remind you about the individual interview the day before?

Informed Consent. Once deemed eligible, the researchers shared information about the consent process, research aims, and additional information about the study. Informed consent was explained during the screening/scheduling phone call and obtained before the individual interview. The informed consent statement provided all of the information in the informed consent document required by IRB.

Interview Questions Mapped to Health Belief Model. The questions asked by the individual interviews were based on the theoretical framework of the HBM. The individual interview questions were open-ended and mapped onto the HBM concepts (See Table 1). The open-ended nature of the interview allows for additional questions based on the flow of the interview (e.g., for clarification, follow-up on discussion, probing for additional information).

Table 1: Concepts of Health Belief Model and Questions

Concepts of Health Belief Model	Questions for Transgender Male Individual interviews
Perceived Susceptibility	• In your own words, what are some physical health issues specific to the transgender male community? • In your own words, how can being a transgender male effect mental health?

Perceived Severity	• What are common medical health care challenges for transgender males? • What are common mental health care challenges for transgender males? • Can you tell me an example, if any, of how being transgender male impacted your ability to receive medical care? • Can you tell me an example, if any, of how being transgender male impacted your ability to receive mental health care? • How serious are the medical issues for the transgender male community? • What could come of the transgender male community not seeking medical and mental health care? • How serious are the transgender male medical and mental health issues?

Perceived Benefits	• Please describe what would motivate you to make an appointment with a medical provider.
	  ○ What would be the benefits of engaging in medical care for a transgender male?
	• Please describe what would motivate you to make an appointment, if needed, with a mental health provider.
	  ○ What would be the benefits of engaging in mental health care for a transgender male?

Perceived Barriers	• Can you tell me an obstacle, if any, when a transgender male tries to access medical services? • Can you tell me an obstacle, if any, when a transgender male tries to access mental health services? • Can you give me an example, if any, of the material costs of seeking medical care as a transgender male? • Can you give me an example, if any, of the material costs of seeking mental health services as a transgender male?

Cue to Action	• What kind of reminders do you need to seek medical services? • What kind of reminders do you need to seek mental health services? • What needs do you have that must be met to receive medical services? • What needs do you have that must be met to receive mental health services? • What kind of assurance do you need that your health care provider is transgender affirming? • What kind of assurances do you need that your mental health care provider is transgender affirming? • How can we better spread the word about transgender affirming medical and mental health care?
Self-Efficacy	• How confident are you to seek medical and mental health services? o Can you give me examples of the services or programs that would increase your confidence to seek medical services? o Describe for me examples of services or programs that would increase your confidence to seek mental health services if needed?

Source: (Glanz et al., 2015)

Data Management and Analysis

Quantitative data

MCWC Medical Chart Data. The researcher was provided a binder with all medical chart information by the Director of MCWC. The information was redacted for identifying information. The researcher reviewed each medial chart and read the detailed intake medical information provided by the medical provider to abstract the data. The researcher

then created an Excel spreadsheet with each row representing a medical chart and the columns containing the following: chart number, age, year of intake appointment, transgender identification, past mental health diagnosis, current mental health diagnosis at the intake appointment, past or current diagnosis of diabetes, pap smear, year of last pap smear test, diagnosis of hypertension, alcohol abuse, high cholesterol, cholesterol total, HDL, LDL, A1C, race/ethnicity, mammogram, year of last mammogram, height, weight, BMI, and obesity. A computer number randomizer (calculatorsoup.com) was used to randomize 25% of charts 1-130 for review, and a research assistant reviewed 25% (n = 32) of the charts to ensure accuracy and efficacy.

BRFSS data. The researcher obtained the BRFSS dataset and codebook from the CDC (Prevention, 2018b). The BRFSS dataset was downloaded into SPSS, a statistical analysis software program. The total sample was recoded to create two sub-samples: BRFSS transgender male sub-sample and BRFSS South, including participants from states in the South. The southern states were determined by the CDC definition that includes: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia (Prevention, 2019b). The BRFSS codebook contains all the questions asked of the BRFSS participants and the "code" for each question. For each specific variable compared between BRFSS and MCWC, the data coding was based on the BRFSS coding system. For instance, age in BRFSS is categorized as the following six categories: 18–24, 25–34, 35–44, 45–54, 55–64, and 65 or older. Therefore, the researcher re-coded the MCWC age variable to the same categories. This process was followed for each of the physical and mental health variables where possible. However,

cholesterol and specific mental health disorders (e.g., anxiety, attention deficit disorder (ADD), attention deficit hyperactivity disorder (ADHD), sleeping disorders were only obtained for MCWC. Therefore, these variables were not included in the analyses for the current study.

Comparison of MCWC and BRFSS. The data obtained from the MCWC was compared to the BRFSS data. The MCWC data is comprised solely of transgender males. These data were compared to three groups separately: (a) BRFSS Transgender Males: all transgender males from the BRFSS dataset; (b) BRFSS South: all BRFSS participants from the Southern US; and (c) BRFSS all: all participants from the BRFSS dataset. This ensured that the comparisons were conducted between the MCWC transgender males and the BRFSS transgender males. Further, it allowed for the comparison of the MCWC sample to a sample from the Southern US. Finally, this also allowed for comparisons to be made between MCWC transgender males and sample representatives of the general population.

A chi-square analysis was conducted on the data comparing MCWC transgender male to BRFSS transgender male; MCWC transgender male to BRFSS South; and, MCWC transgender male to BRFSS all. A chi-square calculator (Statistics, 2020) and Support Analysis Software (SAS) version 9.4 was used to perform a chi-square tests of independence to determine whether there was relationship between group membership (i.e., MCWC or BRFSS subgroup) and available medical and mental health data (Software, 2020). There was a wide range in the total number of participants for the groups in each pairing. Therefore, the chi-square analyses were performed using the CDC

weighted data. Weighting of the data is done to ensure each record counts the same as another record (Prevention, 2017). Additionally, a weighted number allows each record the probability of being equal and allows the researcher to make generalizations from the MCWC transgender male data to the BRFSS transgender male, BRFSS South, and BRFSS all population (Prevention, 2017).

Qualitative data

The researcher and research assistant conducted individual interviews with transgender males to obtain qualitative information on barriers and facilitators to the transgender male community seeking medical and mental health services. The goal was to conduct 20 individual interviews: ten with transgender males who have never received medical or mental health services at MCWC and ten with transgender males who are past or current MCWC patients. We were able to meet our goal of conducting ten interviews with transgender males who are past or current MCWC patients. Unfortunately, we were able to conduct only three interviews with transgender male individuals who did not have a connection to MCWC. This was due to a variety of factors: (a) lack of engagement with the social media post requests for interviews; (b) difficulty making a connection with transgender males who were not actively seeking medical or mental health care at MCWC; and (c) there was the COVID-19 pandemic that affected everyone.

The interviews were digitally recorded and professionally transcribed verbatim and downloaded onto password-protected computers. The researcher and an independent coder conducted descriptive and thematic analyses using open coding with NVivo 12. The themes of the qualitative interviews were coded using the HBM framework of the questions. The "parent" codes were *perceived susceptibility, perceived severity, perceived*

benefits, perceived barriers, cue to actions, and *self-efficacy* (NVivo, 2020). If necessary, additional "child" codes were added based on the themes of the interviews. The researcher and independent codes discussed discrepancies until common codes were agreed upon.

Summary

There is a paucity of research on the transgender male community in terms of their physical and mental health care needs, services, and disparities. The findings from the literature review highlight the crucial need for quality research that extends beyond capturing assumptions to more thoroughly understanding the physical and mental health data of the transgender male population, barriers and facilitators to care, and motivators for seeking—or not seeking—medical and mental health care. In the long term, this work has the potential to be the foundation for future studies and interventions designed for advancing the health of the transgender male population as a whole.

CHAPTER 4

FINDINGS

This chapter provides a detailed description of the findings and an analysis of the study aims. The chapter begins with a description of the participants and then describes the Aims 1 and 2 quantitative findings. This is followed by a description of the Aim 3 qualitative findings from the individual interviews. The chapter concludes with a qualitative analysis, bringing to light the themes that emerged pertaining to the barriers and facilitators to the transgender male community seeking medical and mental health services based on the Health Belief Model constructs.

Participants

MCWC transgender male patients (n = 130) were compared to individuals that responded to the BRFSS divided into three categories, BRFSS transgender male participants (n = 400), BRFSS South participants (n = 135,625), and BRFSS all participants (n = 437,436). States in the South were determined by the Centers for Disease Control and Prevention definition of Southern states (Prevention, 2019b). Table 2: *Race / Ethnicity* and Table 3: *Age* contains quantitative demographic information for the 130 transgender males used in the analyses for Aims 1 and 2.

Race / Ethnicity

Table 2 compares the race / ethnicity of the MCWC transgender male patients to the BRFSS transgender male participants, BRFSS South participants, and BRFSS all participants. In the 2018 BRFSS dataset, race/ethnicity was divided into the following cate-

gories: White, Non-Hispanic; Black, Non-Hispanic; Asian, Non-Hispanic; American Indian / Alaskan Native, Non-Hispanic; Hispanic; Other race, and Non-Hispanic (Prevention, 2018b). The MCWC Client Registration paperwork provided the patient an opportunity to self-report their race / ethnicity into the following categories: White; African American; Latino; Multi; Multi White / Asian; and Multi / African American. If appropriate, those that did not respond to the question on the MCWC Client Registration paperwork were categorized as N/A in this paper.

Across all groups, a similar percentage of participants identified as White, Non-Hispanic: 65% (n = 85) of the MCWC patients, 69% (n = 276) of the BRFSS transgender male participants, 70% (n = 95,050) BRFSS South, and 75% (n = 329,914) BRFSS all. Further, a similar percentage of participants identified as Black Non-Hispanic across the MCWC (16%; n = 21) and BRFSS South (18%; n = 24,148) groups. Rates of other minority groups were highest in the BRFSS transgender male population and included 5% (n = 21) Asian Non-Hispanic and 10% (n = 39) Hispanic / Latino/Latina/Latinx. Race/ethnicity were not used as comparison data for this research so a chi-square comparison was not conducted.

Table 2: Race / Ethnicity

Race / Ethnicity	MCWC Transgender Male (n = 130)	BRFSS Transgender Male (n = 400)	BRFSS South (n = 135,625)	BRFSS All (n = 437,436)
White, Non-Hispanic	85 (65%)	276 (69%)	95,050 (70%)	329,914 (75%)
Black, Non-Hispanic	21 (16%)	41 (10%)	24,148 (18%)	36,443 (8%)
Asian, Non-Hispanic	1 (0%)	21 (5%)	2,151 (2%)	10,884 (2%)

American Indian / Alaskan Native, Non-Hispanic	0	6 (2%)	1,963 (1%)	8,534 (2%)
Hispanic / Latino/Latina/Latinx	2 (2%)	39 (10%)	8,666 (6%)	37,319 (9%)
Other Race. Non-Hispanic	1 (0%)	17 (4%)	3,647 (3%)	14,342 (3%)
N/A, Did Not Answer	20 (15%)			

Age

The BRFSS dataset divided participants into six age groups by year: 18 – 24, 25 – 34, 35 – 44, 45 – 54, 55 – 64, and 65 or older. Table 3 compares age, divided into the BRFSS six age categories, of the MCWC transgender male patients to the BRFSS transgender male participants, BRFSS South, and BRFSS all participants.

MCWC focuses medical and mental health care on patients 19 and older, however, the largest percentage of transgender male patients 47% (n = 61) at MCWC were in the 18 – 24 age group, and 88% (n = 114) were under the age of 34. Only 29% (n = 116) of the transgender male BRFSS participants, 15% (n = 21,004) of the BRFSS South participants, and 17% (n = 72,616) of the BRFSS all participants were under the age of 34. There were no participants over the age of 55 in the MCWC group. In contrast, there were many participants in the BRFSS transgender male group who were over the age of 55 (47%; n = 187), with 25% (n = 100) of the BRFSS transgender male participants being over the age of 65. Age were not used as comparison data for this research so a chi-square comparison was not conducted.

Table 3: Age

Age	MCWC Transgender Male (n = 130)	BRFSS Transgender Male (n = 400)	BRFSS South (n = 135,625)	BRFSS All (n = 437,436)
18 - 24	61 (47%)	55 (14%)	7,387 (5%)	26,012 (6%)
25 - 34	53 (41%)	61 (15%)	13,617 (10%)	46,604 (11%)
35 - 44	9 (7%)	42 (14%)	15,563 (11%)	52,465 (12%)
45 - 54	7 (5%)	55 (14%)	21,078 (16%)	67,836 (16%)
55 - 64	0	87 (22%)	27,893 (21%)	90,595 (21%)
65 or Older	0	100 (25%)	50,087 (37%)	153,924 (35%)

AIM 1

Aim 1 explored physical health disparities in the transgender male community compared to each other study group. We hypothesized that there would be elevated rates of physical adverse health conditions in the transgender male population compared with the community sample groups, including a hypothesis of higher rates of hypertension and diabetes, higher tobacco use, higher obesity rates, higher cholesterol, and even an absence of gynecological exams. We conducted a retrospective medical intake chart review for the 130 transgender males who sought services at MCWC January 4, 2016 – July 31, 2019, evaluating each of their initial intake appointments and the results of blood work at those times. The MCWC outcomes were compared to the 2018 BRFSS dataset for individuals who identify as transgender male, all South participants, and all participants of the BRFSS.

Diabetes

The 2018 BRFSS participants were asked if they *had ever been told they have diabetes* (Prevention, 2018b). Table 4 includes the rate of diabetes diagnosis of the MCWC transgender male patients to the BRFSS transgender male participants, BRFSS South participants, and BRFSS all participants. For the MCWC transgender male retrospective medical chart review, the A1C bloodwork levels collected at the blood draw for the initial medical visit were reviewed. Of the 130 MCWC participants, 34% (n = 44) did not have bloodwork drawn or have A1C levels reported in their chart, and only 2% (n = 1) had a diagnosis of diabetes. The normal A1C levels available for the MCWC transgender male participants were 91% (n = 78). In the BRFSS transgender male group, 8% (n = 7) were diagnosed with pre-diabetes. Seventeen percent (n = 23,291) of the BRFSS South population reported a diagnosis of diabetes.

One of the assumptions of the chi-square test of independence is that the number of cases in each cell must be greater than five to run an analysis (Martin, 2020). Only one participant in the MCWC transgender male group was diagnosed with diabetes. Therefore, chi-square tests of independence could not be performed to examine the relationships between group membership (MCWC vs. BRFSS transgender male, BRFSS South, and BRFSS all) and diabetes diagnosis.

Table 4: Diabetes

	MCWC Transgender Male (n = 86)	**BRFSS Transgender Male (n = 400)**	**BRFSS South (n = 135,603)**	**BRFSS All (n = 437,436)**
Diabetes	Yes = 1 (1%) No = 85 (99%)	Yes = 59 (15%) No = 341 (85%)	Yes = 23,291 (17%) No = 112,312 (83%)	Yes = 64,560 (15%) No = 372,876 (85%)

Smoking

The 2018 BRFSS participants were asked *Do you now smoke cigarettes every day?, some days?, or not at all?* (Prevention, 2018b). Table 5 includes the smoking habits of the MCWC transgender male patients to the BRFSS transgender male participants, BRFSS other participants, and BRFSS South participants. Smoking habits for the MCWC transgender male group were taken from medical provider notes when medical data was collected for this group. Among all MCWC transgender male participants, 35% (n = 45) reported that they smoked some days or every day at the time the notes were taken and 65% (n = 85) denied current tobacco use. Similarly, 40% (n = 64) of the BRFSS transgender male participants reported some or everyday smoking, but only 14% (n = 61,272) of the BRFSS all group and 15% (n = 2,466) of the BRFSS South group reported smoking behavior.

Table 5: Smoking Everyday / Someday

	MCWC Transgender Male (n = 130)	**BRFSS Transgender Male (n = 159)**	**BRFSS South (n = 135,625)**	**BRFSS All (n = 437,436)**
Smoking Every-day / Someday	Yes = 45 35%) No = 85 (65%)	Yes = 64 (40%) No = 95 (60%) χ^2 (1, n=257,156) = 13,511,243.44, p = < .001	Yes = 20,466 (15%) No = 115,159 (85%) χ^2 (1, n=96,854,108) = 34.13, p = < .001	Yes = 61,272 (14%) No = 376,164 (86%) χ^2 (1, n=258,073,517) = 40.85, p = < .001

Chi-square tests of independence were conducted to determine if participant groupings (MCWC transgender males vs. BRFSS transgender males, BRFSS South, and BRFSS all) were related to smoking behavior. The results indicate that MCWC transgender males were *less* likely to smoke than BRFSS transgender males, $\chi^2(1, n = 257,156) = 13,511,243.44$ $p = < .001$. Further, MCWC transgender males were *more* likely to smoke than the BRFSS South group, $\chi^2(1, n = 96,854,108) = 34.13$, $p = < .001$, and the BRFSS all group, $\chi^2(1, n = 258,073,517) = 40.85$, $p = < .001$.

BMI

The 2018 BRFSS participants self-reported their BMI. Some BRFSS participants (n = 35,262) either didn't know their BMI or refused to report. BRFSS participants were divided into four categories based on reported BMI: Underweight (BMI < 1850), Normal Weight, (BMI 1850 < = < 2500), Overweight (BMI 2500 < = < 3000), and Obese (BMI 3000 < = < 9999) (Prevention, 2018b). BMI data for the MCWC transgender male participants was taken from the medical provider notes in the medical records regarding obesity or BMI. Fifteen percent (n = 31) of MCWC patients had a documented height and weight noted in their medical chart, and this was used to calculate the BMI at a rate of weight in kg / (height in m)^2. Table 6 includes BMI group rates for the MCWC transgender male patients as well as each BRFSS group. BMI groupings for the MCWC transgender males in this study appeared notably different from the BRFSS transgender male participants. For instance, a majority of MCWC participants for which BMI data was available (42%; n = 13) were in the normal weight category, while a majority of BRFSS transgender male participants were underweight (80%; n = 216).

Table 6: BMI

BMI	MCWC Transgender Male (n = 31)	BRFSS Transgender Male (n = 271)	BRFSS South (n = 124,404)	BRFSS All (n = 402,174)
Under-weight	6 (19%)	216 (80%)	2,145 (2%)	6,776 (2%)
Normal Weight	13 (42%)	41 (15%)	35,996 (29%)	123,522 (31%)
Over-weight	4 (13%)	10 (4%)	43,871 (35%)	143,878 (36%)
Obese	8 (26%)	4 (1%)	42,392 (34%)	127,998 (32%)
		χ^2 (2, n=149,465) = 91,600.87, p <.001)	χ^2 (2, n=87,383,578) = 61.73, p < .001)	χ^2 (2, n = 234,108,798) = 57.23, p < .001)

To reiterate, one important assumption and expectation of the chi-square test of independence is that the number of cases in each cell is greater than five (Martin, 2020). This assumption was not met in every BMI category for the MCWC and BRFSS transgender male groups. Therefore, the overweight and obese groups (as determined by BMI) were combined into one category relabeled overweight/obese.

Chi-square tests of independence were conducted to determine if participant groupings (MCWC transgender males vs. BRFSS transgender males, BRFSS South, and BRFSS all) were related to participant BMI (underweight, normal weight, or over-weight/obese). Results indicate that the group that participants belonged to was related to BMI when comparing MCWC transgender male participants to BRFSS transgender male (χ^2(2, n = 149,465) = 91,600.87, p < .001), BRFSS South (χ^2(2, n = 87,383,578) = 61.73 , p < .001), and BRFSS all (χ^2(2, n = 234,108,798) = 57.23, p < .001) participants, sepa-rately.

Mammogram

The 2018 BRFSS participants were asked three questions related to gynecological exams: *have you ever had a mammogram?, how long since your mammogram?, and have you ever had a pap test?* (Prevention, 2018b). Table 7 includes rates of mammogram history for MCWC transgender male patients, BRFSS transgender male participants, BRFSS all participants, and BRFSS South participants. The medical data collected at the first appointment at MCWC did not specifically include questions related to mammogram history, although six transgender male patients were asked this question, and 67% (n = 4) of these reported having a mammogram.

A chi-square test of independence should not be conducted if the number of cases in each cell is not greater than five (Martin, 2020). Therefore, chi-square tests of independence could not be performed to examine the relationships between mammogram history (having ever had a mammogram) and study group membership (MCWC transgender male vs. BRFSS transgender male, BRFSS South, and BRFSS all).

Table 7: Have You Ever Had A Mammogram

	MCWC Transgender Male (n = 6)	**BRFSS Transgender Male (n = 238)**	**BRFSS South (n = 73,038)**	**BRFSS All (n = 437,436)**
Have you ever had a mammogram	Yes = 4 (67%) No = 2 (33%)	Yes = 164 (69%) No = 74 (31%)	Yes = 59,070 (81%) No = 13,968 (19%)	Yes = 179,007 (41%) No = 258,429 (59%)

Table 8 includes data for lengths of time since participants' last mammograms for MCWC transgender male patients, BRFSS transgender male participants, BRFSS all participants, and BRFSS South participants. For the 2018 BRFSS participants the lengths of time since participants' last mammogram were categorized as follows: *Within the past year (anytime less than 12 months ago), Within the past 2 years (1 year but less than 2 years ago), Within the past 3 years (2 years but less than 3 years ago), Within the past 5 years (3 years but less than 5 years ago), 5 or more years ago, N/A,* or *unknown* (Prevention, 2018b). 2% (n = 3) of the MCWC patients that answered yes (n = 6) to ever having a mammogram were within the past year. In all other categories BRFSS transgender male 63% (n = 102), BRFSS South 59% (n = 34,990) and BRFSS all 59% (n = 10,4912) reported having a mammogram within the past year (anytime less than 12 months ago).

Again, chi-square tests of independence could not be conducted to test the hypothesized relationships between length of time since last mammogram and study group membership (MCWC transgender male vs. BRFSS transgender male, BRFSS South, and BRFSS all) because of inadequate cell sizes (Martin, 2020).

Table 8: How Long Has It Been Since Last Mammogram

How Long Has it Been Since Last Mammogram	MCWC Transgender Male (n = 130)	BRFSS Transgender Male (n = 163)	BRFSS South (n = 58,994)	BRFSS All (n = 178,767)
Within the past year (anytime less than 12 months ago)	3 (2%)	102 (63%)	34,990 (59%)	104,912 (59%)
Within the past 2 years (1 year but less than 2 years ago)		24 (15%)	10,249 (17%)	31,079 (17%)

Within the past 3 years (2 years but less than 3 years ago)		12 (7%)	4,225 (7%)	13,155 (7%)
Within the past 5 years (3 years but less than 5 years ago)		10 (6%)	3,065 (5%)	9,593 (5%)
5 or more years ago		11 (7%)	5,549 (9%)	17,441 (10%)
Not Asked	126 (97%)	0		2,388 (1%)
N/A, Unknown	1 (1%)	4 (2%)	916 (2%)	199 (0%)

Pap Smear

The 2018 BRFSS participants were asked *have you ever had a pap test* (Prevention, 2018b). Table 9 includes data on pap smear history for MCWC patients, BRFSS transgender male participants, BRFSS South participants, and BRFSS all participants. Pap smear test data was collected from the MCWC medical provider notes. Pap smear history was available for 62% (n = 80) of the MCWC transgender male patients, but this information was not available for 38% (n = 50) of the patients. Of the 62% (n = 80) MCWC patients that had available pap smear test history, 28% (n = 37) reported never having a pap smear test, two patients did not know their pap smear history. Further, 73% (n = 27) were age 18-24 which coincides with the *Journal of the American Medical Association* (JAMA) recommendation that women age 21 - 29 have a pap smear test every three years (Force, 2018). Eighty-one percent (n = 237) of BRFSS transgender male participants reported having had a pap smear in the past, with an impressive 94% (n = 68,286) of BRFSS South participants and 93% (n = 211,339) of BRFSS all participants having had a pap smear in the past.

Table 9: Have You Ever Had a Pap Smear

	MCWC Transgender Male (n = 80)	BRFSS Transgender Male (n = 237)	BRFSS South (n = 72,899)	BRFSS All (n = 226,619)
Have you ever had a pap smear	Yes = 43 (54%) No = 37 (46%)	Yes = 191 (81%) No = 46 (19%) χ^2 (1, n=141,659) = 20.54, p <.001)	Yes = 68,286 (94%) No = 4,613 (6%) χ^2(1, n=46,100,841) = 126.43, p < .001)	Yes = 211,339 (93%) No =152,80 (7%) χ^2(1, n=122,346,333) = 111.72, p < .001)

Chi-square tests of independence were conducted to determine if participant groupings (MCWC transgender males vs. BRFSS transgender males, BRFSS South, and BRFSS all) were related to pap smear history (having ever had a pap smear). Results indicate that MCWC transgender male participants were *less* likely to have had a pap smear at some point in their lives than BRFSS transgender males (χ^2(1, n = 141,659) = 20.54, p < .001), BRFSS South participants (χ^2(1, n = 46,100,841) = 126.43, p < .001), and BRFSS all participants (χ^2(1, n = 122,346,333) = 111.72, p < .001).

Pap Smear in last three years

Table 9 did not take into account the age of the patient at the time of the pap smear. However, the 2018 BRFSS participants were asked *Have you ever had a pap test within the past 3 years*, providing the length of time between each participants' last pap smear test for those aged 21 – 65, (see Table 10) (Prevention, 2018b). Of the 59% (n = 80) of MCWC patients that that had available pap smear test history data, 54% (n = 43) had received a pap smear test in the past. All of these participants were aged 21 – 65, and 72% (n = 31) of them (39% of participants with available pap smear history) had received

a pap test within the past three years. A greater percentage of participants in the BRFSS transgender male group (69%; n = 91) reported having received a pap test within the past three years than the MCWC patients (33%; n = 23).

Table 10: Received a Pap Test within the Past 3 Years (aged 21-65)

	MCWC Transgender Male (n = 80)	**BRFSS Transgender Male (n = 132)**	**BRFSS South (n = 32,256)**	**BRFSS All (n = 107,353)**
Received a Pap test within the past 3 years (aged 21-65)	Yes = 31 (39%) No = 49 (61%)	Yes = 91 (69%) No = 41 (31%) χ^2 (1, n=82,930) = 24.24, $p < .001$	Yes = 26,049 (81%) No = 6,207 (19%) χ^2 (1, n=26,407,366) = 87.22, $p < .001$)	Yes = 86,188 (80%) No = 21,165 (20%) χ^2(1, n=72,328,326) = 84.20, $p < .001$)

Chi-square tests of independence were conducted to determine if participant groupings (MCWC transgender males vs. BRFSS transgender males, BRFSS South, and BRFSS all) were related to 3-year pap smear history (having had a pap smear in the past 3 years). Results indicate that MCWC transgender male participants were less likely to have had a pap smear in the past 3 years than BRFSS transgender males (χ^2(1, n = 82,930) = 24.24, $p < .001$), BRFSS South participants (χ^2(1, n = 26,407,366) = 87.22, $p < .001$), and BRFSS all participants (χ^2(1, n = 72,328,326) = 84.20, $p < .001$).

Hypertension and High Cholesterol

Hypertension and high cholesterol diagnosis were not reported for the 2018 BRFSS participants (Prevention, 2018b). However, this information was obtained from the medical charts of the MCWC transgender male participants.

Seventy-eight percent (n = 101) of MCWC transgender male participants' charts had lab work that included HDL levels. Of patients aged 25 – 34, 23% (n = 9) had high levels of HDL, and 48% (n = 48) had desirable HDL levels. Of those with desirable HDL levels, 42% (n = 20) were below the age of 35.

Seventy-six percent (n = 99) of MCWC transgender male participants' charts had lab work that included LDL levels. Of these, 49% (n = 48) participants had optimal levels of LDL in their blood, while 7% (n = 7) had high or very high LDL levels in their blood.

Of the 77% (n = 100) of MCWC transgender male participants' charts that had triglyceride lab work, 80% (n = 80) were had triglyceride levels within the normal range, 11% (n = 11) were had triglyceride levels within the borderline high range, and 9% (n = 9) were had triglyceride levels within the high range.

Aim 1 Summary

The goal of Aim 1 was to explore physical health disparities in the transgender male community as compared to the general population. MCWC transgender male patients had a lower rate of diabetes (2%), compared to the rate observed for the State of Alabama (12%) (A. P. Health, 2019). As it is the assumption and expectation of the chi-square test that the value in each cell is greater than 5 a chi-square test of independence could not be performed to examine the relation between MCWC transgender male and

BRFSS transgender male and diabetes diagnosis, and length of time since last mammogram (Martin, 2020).

Among all MCWC transgender male participants, 35% (n = 45) reported that they smoked some days or every day at the time the notes were taken and 40% (n = 64) of the BRFSS transgender male participants reported some or everyday smoking. For those reporting having a mammogram within the past year, BRFSS transgender male 63% (n = 102), BRFSS South 59% (n = 34,990) and BRFSS all 59% (n = 10,4912). We did not find significant differences between MCWC transgender male and BRFSS transgender male on the following items: Smoking Everyday / Some Days and Ever Had a Mammogram.

We did find significant differences between MCWC transgender male and BRFSS transgender male on the following items: BMI; Ever Had a Pap Smear; Received a Pap Test Within past 3 years (aged 21 - 65) reported and Smoking Everyday / Someday as compared to BRFSS South and BRFSS all. The BMI results were self-reported by the BRFSS participants and calculated based upon weight and height for the MCWC transgender male; 61% (n = 19) of the MCWC transgender male, 95% (n = 257) of the BRFSS transgender male, 31% (n = 38,141) of the BRFSS South, and 33% (n = 130,298) of the BRFSS were underweight or normal weight. An impressive 81% (n = 26,049) of BRFSS South participants and 80% (n = 86,188) of BRFSS all participants self-reported as had received a pap test within the past 3 years.

The MCWC transgender male bloodwork, as it relates to HDL cholesterol, LDL cholesterol, and triglycerides could be used as an overall proxy marker of physical health of the qualitative medical chart review patients.

AIM 2

Aim 2 explored the mental health disparities in the transgender male community as compared with the general population. We hypothesized that there will be elevated rates of adverse mental health conditions and experiences in the transgender male population compared with the general public, including depression and current or history of alcohol or other substance abuse.

We conducted medical intake chart reviews of the 130 transgender males who sought medical services at MCWC from January 4, 2016 – July 31, 2019, evaluating their initial intake appointment and the results of blood work at that time. The mental health outcomes were compared to the BRFSS dataset for individuals who identify as transgender male, all South participants, and all participants of the BRFSS.

Alcohol

Table 11 compares the heavy drinking habits of the MCWC transgender male patients to the BRFSS transgender male participants, BRFSS all participants, and BRFSS South participants. The 2018 BRFSS participants were asked if they were *heavy drinkers* and defined heavy drinking as adult males having more than 14 drinks a week and adult women having more than 7 drinks a week (Prevention, 2018b). Of the BRFSS participants, the South participants had the highest percentage of heavy drinkers at 25% (n = 6,953). The MCWC transgender male retrospective medical data collected was based upon medical provider notes in the medical records regarding past or current alcohol abuse or heavy drinking. 50% (n = 65) MCWC transgender male patients were asked about alcohol abuse or heavy drinking and only 2% (n =1) answered yes.

As it is the assumption and expectation of the chi-square test of independence that the value in each cell is greater than five a chi-square test of independence could not be performed to examine the relation between MCWC transgender male (n =1) and BRFSS transgender male, BRFSS South, BRFSS all, and heavy drinker (Martin, 2020).

Table 11: Heavy Drinker

	MCWC Transgender Male (n = 65)	**BRFSS Transgender Male (n = 400)**	**BRFSS South (n = 27,645)**	**BRFSS All (n = 437,436)**
Heavy Drinker	Yes = 1(2%) No = 64 (98%)	Yes = 20 (5%) No = 380 (95%)	Yes = 6,953 (25%) No = 20,692 (75%)	Yes = 25,022 (6%) No = 412,414 (94%)

Depressive Disorder and Anxiety

The 2018 BRFSS participants were asked if *they were (ever told) you have a depressive disorder (including depression, major depression, dysthymia, or minor depression)* (Prevention, 2018b). Table 12 compares the self-reported depressive disorder of the MCWC transgender male patients to the BRFSS transgender male participants, BRFSS South participants, and BRFSS all participants. The MCWC transgender male medical retrospective medical chart review data collected concerning a self-reported past depressive disorder diagnosed, 44% (n = 57) reported yes to the question. To compare, 29% (n = 117) BRFSS transgender male, 19% (n = 26,132) BRFSS South and 19% (n = 81,809) BRFSS all reported a depressive disorder.

Table 12: Depressive Disorder (Self-Reported)

	MCWC Transgender Male (n = 130)	**BRFSS Transgender Male (n = 400)**	**BRFSS South (n = 135,603)**	**BRFSS All (n = 437,436)**
Depression Self-Reported	Yes = 57 (44%) No = 73 (56%)	Yes = 117 (29%) No = 283 (71%) $\chi^2(1, n = 245,689) = 3.76, p = .053$	Yes = 26,132 (19%) No = 109,471 (81%) $\chi^2(1, n = 96,332,409) = 54.06, p < .001$	Yes = 81,809 (19%) No = 355,627 (81%) $\chi^2(1, n = 256,657,357) = 56.57, p < .001$

A chi-square test of independence was performed to examine the relation between MCWC transgender male and BRFSS transgender male and self-reported depressive disorder. 44% (n = 57) of the MCWC transgender male self-reported being diagnosed with a depressive disorder as comparted to 29% (n = 117) of the BRFSS transgender male. The relationship between these variables was not significant, $\chi^2(1, n = 245,689) = 3.76, p = .053$.

A chi-square test of independence was performed to examine the relationship between MCWC transgender male and BRFSS South and self-reported depressive disorder. 44% (n = 57) of the MCWC transgender male self-reported being diagnosed with a depressive disorder as compared to 19% (n = 26,132) of the BRFSS South. The relationship between these variables was significant, $\chi^2(1, n = 96,332,409) = 54.06, p < .001$.

A chi-square test of independence was performed to examine the relation between MCWC transgender male and BRFSS all and self-reported depressive disorder. 44% (n =

57) of the MCWC transgender male self-reported being diagnosed with a depressive disorder as compared to 19% (n = 81,809) of the BRFSS all. The relationship between these variables was significant, $\chi^2(1, n = 256,657,357) = 56.57$, $p < .001$.

Anxiety and other mental health

The BRFSS participants were not asked about a past or current diagnosis of anxiety but the MCWC percentages were above average and warranted noting in Table 13. According to the Anxiety and Depression Association of America, anxiety disorders, the most common reported mental health illness, affects 40 million adults in the US age 18 and older, or 18.1% of the population every year. The MCWC transgender male patients were asked about a past anxiety diagnosis and 28% (n = 37) self-reported that they had a past anxiety diagnosis. After the first MCWC medical appointment, the medical provider diagnosed 24% (n = 31) with anxiety and 29 patients maintained their past self-reported diagnosis of anxiety.

Table 13: Anxiety

	MCWC Transgender Male (n = 130)
Self-reported past diagnosis of anxiety	Yes = 37 (28%) No = 93 (72%)
Diagnosis of anxiety at first appointment	Yes = 31 (24%) No = 99 (76%)

The 2018 BRFSS participants were asked the question, *Has anyone (Ever told) you have a depressive disorder (including depression, major depression, dysthymia, or minor depression)* but were not asked about specific mental health diagnosis (Prevention,

2018b). Table 14 contains the past (self-reported) and current mental health diagnosis for the MCWC transgender male patients. The 2019 suicide rate for the State of Alabama was 16.6% (per 100,000 person) (n = 836) (Review, 2020) compared to MCWC transgender male past suicide attempt/s at 9% (n = 12). The estimated lifetime prevalence of ADHD in U.S. adults aged 18 to 44 years was 8.1% (Kessler RC, 2005) as compared to MCWC transgender male self-reported ADHD/ADD at first visit 12% (n = 16) and 9% (n = 12) diagnosed by the medical provider at the first visit. According to the National Center for PTSD (2019), 7 - 8% of the population will have PTSD at some point in their lives (PTSD, 2019) as compared to the MCWC transgender male self-reported past PTSD diagnosis at first visit 6% (n = 8) and 4% (n = 5) diagnosed by the medical provider at the first visit. During an adults lifetime, more than 75% of adults between ages 20 – 59 will experience a sleeping disorder including insomnia, sleep apnea, and lack of sleep (Cherney, 2017) as compared to MCWC transgender male self-reported past sleeping disorder diagnosis at first visit 5% (n = 7) and 7% (n = 9) diagnosed by the medical provider at the first visit.

Table 14: Other Mental Health

MCWC Transgender Male (n = 130)	Self-Reported mental health diagnosis at first medical visit	Diagnosed with mental health disorder at first medical visit by medical provider
ADD / ADHD	Yes = 16 (12%) No = 114 (88%)	Yes = 12 (9%) No = 118 (91%)
Suicide attempt/s	Yes = 12 (9%) No = 118 (91%)	
PTSD	Yes = 8 (6%) No = 122 (93%)	Yes = 5 (4%) No = 125 (96%)
Sleeping Disorder	Yes = 7 (5%) No = 123 (95%)	Yes = 9 (7%) No = 121 (93%)
None	Yes = 50 (38%) No = 80 (62%)	Yes = 60 (46%). No = 70 (54%)

Aim 2 Summary

Aim 2 explored the mental health disparities in the transgender male community compared to the general population of U.S. citizens. The MCWC participants drank alcohol at a lower rate than the national average (Administration, 2018). The participants all self-reported their drinking habits and the percentages of heavy drinkers were low, 2% (n = 1) MCWC transgender male, 5% (n = 20) BRFSS transgender male, 25% (n = 6,953) BRFSS South, and 6% (n = 25,022) BRFSS all reported as a heavy drinker.

MCWC transgender males were more likely to have a depressive disorder (self-reported) than BRFSS transgender males, BRFSS South, and BRFSS all.

AIM 3

Aim 3 explored the barriers and facilitators to the transgender male community seeking medical and mental health services. We conducted a total of 13 individual interviews with transgender males.

Individual Interview Participants A – M

Three of the interviews were with transgender male individuals who have never received medical or mental health services at MCWC. These participants are referred to as Participant A, Participant B, and Participant C. Ten of the interviews were with past or current MCWC transgender male patients. These participants are referred to as Participant D, Participant E, Participant F, and so on through Participant M. To protect the anonymity of the participants, we did not obtain the following demographic data: name, age, sex, race/ethnicity, sexual orientations, place of residence, and income.

Physical and Mental Health Disparities and the Health Belief Model

The specific questions in the individual interviews were based on the HBM as they relate to medical and mental health care: perceived susceptibility, perceived severity, and perceived benefits of receiving care; perceived barriers to care; cues to action; and self-efficacy. The findings for the specific constructs of the HBM and the themes that emerged are displayed in Table 15 and described below accordingly by each construct.

Table 15. Elements of HBM and Physical and Mental Health Disparities in the Transgender Male Community

HBM Constructs and Probes	Physical and Mental Health Disparities Discussed
Perceived Susceptibility • What are physical health issues specific to the transgender male community • What are mental health issues specific to the transgender male community	• Blood pressure, kidney, liver • Body dysphoria • Depression and anxiety
Perceived Severity • What are the medical health challenges specific to the transgender male community? • What issues impact ability to receive medical care? • What issues impact ability to receive mental health care?	• Friends and family acceptance • Lack of medical insurance • Cost of medical insurance • Depression and anxiety • Suicidal thoughts / actions • Affirming providers • Health care costs
Perceived Benefits • What motivates the transgender male community to make a medical appointment? • What motivates the transgender male to make a mental health appointment? • What are the benefits of engaging in medical care for the transgender male community? • What are the benefits of engaging in mental health care for the transgender male community?	• Prescription for HRT • Staying healthy • Control depression • Control anxiety

Perceived Barriers • What are the barriers to accessing medical care for the transgender male community? • What are the barriers to accessing mental health care for the transgender male community? • What are the costs of seeking medical care? • What are the costs of seeking mental health care?	• Cost of medical care • Cost of mental health care • Lack of affirming providers • Lack or limited health insurance • Difficulty obtaining letter from therapist
Cue to Action • What reminders are needed to seek medical services for the transgender male community? • What reminders needed to seek mental health care for the transgender male community? • What needs must be met to engage in medical and mental health care for the transgender male community? • What assurances that your health care and mental health care provider is affirming? • How to spread the word about transgender affirming medical and mental health care?	• Affirming provider • Free programs • Transgender specific health care provider • Physical needs (prescriptions) • Mental health needs (prescriptions, therapy)
Self-Efficacy • What would increase the confidence to seek medical and mental health services for the transgender male community? • How to increase confidence to seek mental and mental health services for the transgender male community?	• Free programs • Affirming provider • Support groups • Transportation

Perceived Susceptibility

We asked the participants to share what they thought were some of physical health issues specific to the transgender male community and how being a transgender male can affect mental health. Specific questions included: *In your own words, what are some*

physical health issues specific to the transgender male community? In your own words, how can being a transgender male effect mental health?

The participants identified a number of physical health issues specific to the transgender male community including blood pressure, liver and kidney issues that may arise due to taking hormone replacement therapy (HRT), testosterone or "T."

> *I know being an older trans man that the testosterone has a, it's kind of my nemesis. The Testosterone C will make your red blood cell count go up.* (Participant I*)*

> *Definitely high blood pressure, liver issues. Because I mean they'll test your levels before you go on T, and if they're too high, like those levels are too high, they'll either wait to put you on T or just kind of continuously monitor it. So that's a worry with my family because my family has a history of heart disease. So me being on T it's like, yikes.* (Participant A)

They also expressed concerns about the lack of research on the physical implications and what that can do to their body now and in the future. For example, Participant E shared their concerns about long-term effects of HRT:

> *One thing I've been concerned about is that there's just not a lot of research yet, or warnings, when you start HRT and stuff, that you will need to still have care for the parts that you have, that you've had that since birth, or whatever. So again, since that's something that a lot of trans men are averse to dealing with anyway, getting that checked out, it could potentially be dangerous later on, because there are side effects to HRT that I don't think a lot of people know from the beginning, that will affect the parts that you have. It's important to make sure that people are getting checked out as they do that.*

The participants further shared their thoughts on specific mental health issues that the transgender male community faces including depression and anxiety.

> *Okay, I cannot tell you, and I'll be honest, how many times a day that I would sit there and I would say how bad that I want male parts. I'd be like, "I wish I had that. I wish I had that. I wish I had that. I wish I had that."*

> *And it gets to a point where it's just all you say is wish, wish, wish. And with just the cost of just getting there, it's* stressful. (Participant C)

> *It's like you have to get it out there and tell people it's here. Tell people that it's real so that people can understand that we're not faking it. We don't want to just be men cause it's easier. It's hard. Yeah, it's just real hard.* (Participant H)

They explained how menstrual cycles starting due to HRT, having pap smear exams, and reproductive concerns were anxiety producing and stressful. Some shared how the sudden changes in their body brought on extreme anxious feelings. Participant H described in detail the struggles of a transgender male experiencing their menstrual cycle:

> *Okay, so mental health for that. I mean, we're obviously born in a female body, going to have all of that stuff. Periods, that's crazy. You know, it's like, why is this happening? It doesn't feel like you should be doing it. Your whole mental state is freaking out, cause they're having something happen to you that you don't really connect with yourself. The first time I had mine, it was crazy. I freaked out. I'm like, I started crying. I was like, "I'm dying. I need to go to the hospital. Please save me." My mom was just like, "You're fine. You're okay. It's just a period." I'm like, "No, it's not. I'm dying, I'm bleeding. It's what's going on." It's just like out of body, you don't know what's going on, but it's happening to you. You have to learn to deal with it.*

> *As I said, really hard for us to understand exactly how to address complications that might come up from taking testosterone. And it can just have a huge toll, not being able to understand why some people stop their cycles and why some people don't and then other issues that can come up with pain in the body and not understanding how testosterone is playing into that.* (Participant L)

Anxiety and or depression dominated the conversation as it relates to the risk of developing a mental health issue as a transgender male.

> *If you don't have family, if you don't have support, that leads to depression, which can lead to a drug abuse and suicide unfortunately. We see that a lot with the LGBT community, especially here in the South. You don't have a lot of family and friends that are going to support because of where you're at.* (Participant M)

> *I think depression and anxiety, those are the two main ones, definitely. I mean, I don't think I've met a trans individual yet that doesn't struggle with depression or anxiety.* (Participant A)

> *It just really is not fun. It [anxiety] kind of happens out of nowhere sometimes. And so that is just not great and it puts you at greater risk. It puts so much strain on your chest. So like later on down the road it can put you are at greater risk for heart attack or heart disease or something like that.* (Participant B)

The participants further identified mental health issues specific to the transgender male community as they related to shame, stress, isolation, fear, body dysphoria, and anger.

> *People like me who look a little more feminine, it's really hard to get people to be like, "Hey, you're a guy." Even people you've known for years who know you present as male, they still mess it up, and so mentally it just affects you every single day. It's like, who's going to misgender me today? Who's going to say the wrong name today. Do I tell my boss that I'm going to be transitioning to this. There's a lot of different mental health things that go along with it that no one even thinks about.* (Participant H)

In summary, participants noted a number of factors that they felt may put them at risk of physical and/or mental health disparities due to their transgender male identification. These included: depression, anxiety, high blood pressure, and body dysphoria.

Perceived Severity

We asked participants questions to assess their understanding of the severity and the consequences of the severity of the mental health and medical health issues specific to the transgender male community. Specific questions asked included: *What are common medical health care challenges for transgender males? What are common mental health care challenges for transgender males? Can you tell me an example, if any, of how being transgender male impacted your ability to receive medical care? Can you tell me an example, if any, of how being transgender male impacted your ability to receive mental*

health care? How serious are the medical issues for the transgender male community? What could come of the transgender male community not seeking medical and mental health care? How serious are the transgender male medical and mental health issues?

When asked about common mental health care challenges for transgender males, many participants noted worry about family and friend acceptance, having depression, anxiety, self-harm, and suicidal thoughts. For the participants, finding an affirming mental health provider was an imperative for mental health counseling.

> *And my family slips up every once in a while and mis-genders me. And they are always like, "Oh shit, I'm sorry." But it's still just like, "Ugh. That's how you see me. You don't see me for me.* (Participant J)

> *I could say, well anger is one of them. The ability to accept that you're changing, but you're not exactly who you want to be yet. That has definitely been an issue. I have not yet gotten my chest done, which has been a really, it's been rough because I still walk around with my breasts on my chest. And it really, that takes a toll on me the most, because I just hate it so much.* (Participant C)

> *There are times when I, even just going to the dermatologist I'm afraid that they're going to see that ... They're going to hear my voice and see my face and then see that my sex does not say male. There's always that underlying fear that what if they don't want to treat me or what if they purposely just say something that is not wrong with me or whatever, they don't properly diagnose me with something, whether a dermatologist, dentist, or just a doctor in general.* (Participant A).

> *But, yeah, I mean, there's just so much, I think, self-harm and just so many mental health issues that come along with it. Because it's already hard enough when you don't have family support.* (Participant F)

Some of the participants relayed fear about not having insurance to pay counseling services as a challenge in seeking mental health services.

> *Yeah, unfortunately it's been in my friends or in a circle of friends and stuff, a lot of the ones who can't get [medical and mental health] treatment. Let's say they don't have a lot of money and they can't get the things*

> *that they want to make the dysphoria and things go away. That's going to be your highest point. Or if they don't have family that's not going to be there for them, they don't have friends or anybody to depend on, everything that adds up. It goes right back to that.* (Participant M)

> *I'm losing funds and maybe my insurance, just access to the information for one. Like, I don't know, if this happens, what to do, so, and then different insurances let you see different people, because different therapists and stuff take different insurances and stuff. So it gets to be quite costly and when you don't have the funds for it, I don't know.* (Participant D)

When asked about common medical health care challenges for transgender males, some of the participants noted a lack of health insurance and the cost of medical care as well as HRT prescriptions. Similar to mental health services, the participants stated that an affirming provider was imperative for medical health care services.

> *Yes. Just the fact that, just the cost. People who don't have insurance, that is a $50,000 procedure, but I am blessed. But I have not yet been able to do it because of work and this world, so it's been like, "This just keeps getting worse.* (Participant C)

> *Yeah, unfortunately it's been in my friends or in a circle of friends and stuff, a lot of the ones who can't get treatment. Let's say they don't have a lot of money and they can't get the things that they want to make the dysphoria and things go away. That's going to be your highest point. Or if they don't have family that's not going to be there for them, they don't have friends or anybody to depend on, everything that adds up. It goes right back to that.* (Participant L)

> *I need to be in a head space where I can actually make myself go [to mental health and medical appointment], because sometimes I get really nervous about things like this, like going to a new doctor, especially if it's a doctor where I don't know if they are rainbow friendly because it's really hard to tell, especially in Alabama who's going to be, like who is okay to tell. (*Participant H)

> *I know that when I first started going to therapy, the person that I went to did not really know how to deal with it [transgender identity] and it felt like she was kind of ignoring it.* (Participant A)

Feelings of fear of being a transgender male and a lack of affirming providers impacted the participants ability to receive mental health and medical care. Participant J discussed the barriers to HRT and the consequences of the provider not providing affirming medical care:

> *When you start testosterone, when I started testosterone at least, my insurance required that the physician, the endocrinologist go through the list of bad things that will happen to me when I start testosterone. It was almost like how if someone wants to get an abortion they have to listen to the heartbeat and go through another bajillion different hoops. And I just think I want to compare it to things like antidepressants or other medications that you have to be prescribed because there are medications that you have to be prescribed that doctors will just give out even though they have side effects such as weight gain, change in body hair, you might develop diabetes, you might develop heart disease, you might die, you might start having suicidal thoughts.*

Other participants echoed this concern, as well:

> *Well maybe, depending on where you work when it comes to your chest. That's just your chest. But with jobs, and it being obviously in Alabama, it might be hard for us to be able to take off [chest binder] that long and still get paid. That could be an issue, because some companies can be like that. And that's one thing I do fear is trans people in the workplace, that's definitely one of them*. (Participant C)

> *I think since a majority of the people here are Republicans and homophobic and transphobic, it can make it hard to really know who to trust with such information. If the fear of what if someone finds out I'm trans and you won't really ... There's a fear that more often than not, they're going to not like that. So yeah, it definitely makes it harder to really, I feel like, to be yourself when you're trans.* (Participant A)

When asked about how serious the medical issues are for the transgender male community, many shared that they considered the mental health and medical health issues in the transgender male community as “very serious.”

> *I think it could be very serious because if you get to a point where... You, I secluded myself so much, to where when I need a outlet for stuff, it's not there. And that's the whole issue for me is isolation. I don't have a sense of community. And when I say a sense of community, I don't feel like I fit in, at either side.* (Participant K)

> *Very serious, because when you have... Okay, I cannot tell you, and I'll be honest, how many times a day that I would sit there and I would say how bad that I want male parts. I'd be like, "I wish I had that. I wish I had that. I wish I had that. I wish I had that." And it gets to a point where it's just all you say is wish, wish, wish. And with just the cost of just getting there, it's stressful.* (Participant C)

> *But I never go to a doctor of any kind, or even like a therapist. I go to physical therapy and I've been going since like September of last year. And I still haven't told them that I don't go by my legal name because I still have no idea if they'd be cool with it or not. There's no indication. And I'm not comfortable, especially because one of their interns is super Christian.* (Participant J)

Building on this point, participants further elucidated the severity of mental health issues into prominent subgroups which included depression, anxiety, and suicide. Participant I discussed a suicide that occurred in the transgender male community and how suicide is prevalent in their community:

> *Like I said, the group that I'm on, there was a trans man that committed suicide and I think that happens a lot, not just in the trans men community but also in the trans female community. I think sometimes that people have underlying medical conditions or personality disorder, whatever it is, mental illness, and sometimes I think the testosterone kind of amplifies that for some people.*

On a similar note, Participant H shared:

> *People like me who look a little more feminine, it's really hard to get people to be like, "Hey, you're a guy." Even people you've known for years who know you present as male, they still mess it up, and so mentally it just affects you every single day. It's like, who's going to misgender me today? Who's going to say the wrong name today. Do I tell my boss that I'm going to be transitioning to this. There's a lot of different mental health things that go along with it that no one even thinks about.*

In summary, participants noted several common medical and mental health challenges for the transgender male community. A lack of health insurance and affirming providers magnified the seriousness of the medical and mental health issues. The participants noted, mental health challenges included anxiety, depression, and suicide.

Perceived Benefits

Participants were asked what the perceived benefits are for the transgender male community to engage in medical and mental health services. They were also asked what would help motivate a transgender male individual to seek out and access medical and mental health services specific to the transgender male community. Specific questions asked included: *Please describe what would motivate you to make an appointment with a medical provider. What would be the benefits of engaging in medical care for a transgender male? Please describe what would motivate you to make an appointment, if needed, with a mental health provider. What would be the benefits of engaging in mental health care for a transgender male?*

A reoccurring sentiment shared by many was the need to feel that that were in an affirming space. For example, Participant J shared:

> *I need to be in a head space where I can actually make myself go [medical appointment], because sometimes I get really nervous about things like this, like going to a new doctor, especially if it's a doctor where I don't know if they are rainbow friendly because it's really hard to tell, especially in Alabama who's going to be, like who is okay to tell. Thankfully we have the Magic City Wellness Center so that helps a lot.*

Motivation for medical appointments centered around obtaining and maintaining a prescription for HRT. Participants shared that in order to obtain HRT, they must have a medical appointment with a prescribing medical provider. Further, they expressed that

they must continue with their follow-up appointments to stay on HRT so that the medical provider can monitor any potential medical issues caused by HRT such as high blood pressure, kidney disease, high cholesterol, and stokes. They further noted that medical conditions can be exacerbated if they "go on and off" of HRT. As such, they shared that they are required to have quarterly bloodwork and an in-person medical appointment if they want to be on HRT. Collectively, obtaining a prescription for HRT was expressed as a huge motivator and perceived benefit to seek medical care.

> *I actually, I had actually stopped T for about four months due to an incident that happened in my life. And that had to be a very, very tough situation because being a trans male, you still have a uterus. And when you're off T, your period starts coming back and that is absolutely the worst feeling I ever would have to feel again, but I'm glad I don't feel it now thank God. But that was a while, that was last year or two years ago. It was very mentally hard for me to be off of it, and not be able to get it and I'm literally having a cycle and that was hard. Just the fact that I have to put a tampon in. And after something like that, that's almost... I didn't have a menstrual cycle for almost a year. So just that and then having to pass all that was rough, because I was having to do this for two weeks and I felt absolutely horrible. This is not me. I am not who... Oh it was mentally* (Participant C)

Some of the participants shared that a big motivator for them to get engage in mental health care and making a mental health appointment is so that they can get their mental health needs addressed.

> *I think that it is necessary to make sure that the person is 100% sure that this is what they want to do because I think that it definitely helps talking to a mental health professional so that both parties are sure that this is something that they really want and really need because it is a very big thing in someone's life to take hormones and transition to the opposite sex, for example.* (Participant A)

> *I think just letting the person know that it [mental health] can definitely be helped. The anxiety, the shame, and the depression of it is not a permanent thing, that there is hope and help that can be achieved with mental health help.* (Participant A)

> *I just think now's the time for everybody to stick together because mental health is the most important and it's not even just for LGBT people, even though that's who I kind of lean more towards as far as please go get some help if you need it. It's just to let them know that they're not alone. Just because somebody doesn't, you don't recognize them as being transgender, they may look a little bit different or they pass better than you, it doesn't matter. It all takes time. Don't ever be discouraged and there's always somebody out there that's in your same situation. Just speak out, help, just ask for help if you need it. We've lost way too many people by not having that. No, you have to ask for help and anybody should be there in our community to help.* (Participant M)

Another remarkable shared thought from a number of participants was the concept of a person who acted in the role of a "facilitator" and assisted them in obtaining medical and mental health services. These facilitators were individuals that did not reside in a typical affirming HRT medical or mental health provider office but were key motivators in the participants making their first HRT appointment. Many shared how these individuals (i.e., facilitators) provided motivation, information, referrals, and encouragement to them for them to obtain and engage with their medical and mental health providers. These facilitators were individuals like therapists, mental health counselors, and nurse practitioners at job sites who stepped outside their comfort zone to offer affirming, healthy, and informative guidance. The participants shared that they felt it was imperative that they were able to discuss with their facilitator their needs, fears, and desires for HRT so that they could find an affirming provider together.

> *My nurse practitioner, I'm actually her first ever trans ever. And she honestly was like, "I'm excited. Let's do this. I'm excited to go through this with you. I'm excited to see you every time I see you." Every time she sees me, she touches my chin because I have a beard, and she says, "Oh, look at you and your beard." And I'm like, "Yep." So especially in my experience, she's very... I got exciting and very looking forward to the whole new project.* (Participant C)

> *And so my regular therapist called my psychiatrist, who is one of the psychiatrists at Grandview and they talked to Grandview and Grandview put me in my own*

> *room. They had a male security guard watching me strip down, but they let me keep my underwear on and then I had to put on the scrubs in the midst of it, but at least they, he didn't make me bend over and cough like they did before. So there's different things like that that happens that would prevent somebody going and seeking help, especially if they get thrown in there and then they have all that to happen. Had I not had doctors in there to intervene before I went in, then it might've been a different experience.* (Participant D)

> *There definitely was the fear after my first therapist that she wasn't going to be able to help me. But I did search for her specifically to see that she helps with transgender patients. I had asked her if she worked with other transgender males and she said, other transgender patients in general, and she said yes and that was very comforting because she also gave me my referral to the endocrinologist.* (Participant A)

> *Actually, before I started, my nurse practitioner actually pushed me. She was my backbone of this whole thing. She actually was like, "If you want to do this, you need to do it." And she actually would get out my phone and tell me all these doctors' names, give me their phone number, stuff like that. And I would just be on my own, but with her in the same room. Actually, she was the person, she actually takes time out of her workday to be looking this stuff up. And I would go and see her, and she'd tell me, she was like, "So I got a couple of these places." and I'm like, "Wait. Did you just look up all these places without an appointment and out of work?" kind of thing. I was really, really, really impressed and that was heartfelt for me, because she looked up these places and these doctors and all that.* (Participant C)

In summary, participants noted several motivations that would encourage them to make an appointment with a medical provider (e.g., obtaining a prescription for HRT with an affirming provider and affirming space). The participants also expressed that mental health motivators and benefits to engaging in mental health care included treatment for anxiety, depression, and obtaining their required HRT letter (further described below).

Perceived Barriers

Participants were asked questions to determine the perceived barriers or obstacles specific to the transgender male community trying to access medical and mental health

services. Specific questions asked included: *Can you tell me an obstacle, if any, when a transgender male tries to access medical services? Can you tell me an obstacle, if any, when a transgender male tries to access mental health services? Can you give me an example, if any, of the material costs of seeking medical care as a transgender male? Can you give me an example, if any, of the material costs of seeking mental health services as a transgender male?*

Feelings of defeat reverberated throughout their sentiments.

> *Just after a while it just really like wears you down kind of like how like water erodes rock in a way and you just kind of like, it's never going to happen. You look at other people who have had hormones and you're like, that's never going to be me.* (Participant A)

This was echoed by many who shared the hardships of finding an affirming provider as an enormous barrier to accessing medical and mental health services. The complexities of finding an affirming provider resonated throughout the interviews with participants. They shared how difficult it was to find a provider who was not "judgmental."

> *Finding the right therapist to help without judgment of the transitioning. I changed therapists, my therapist retired and she had to help me find another therapist. And like I think out of the group at 20 only like two therapists was willing to see a trans person, that didn't have hangups about it or whatnot.* (Participant C*)*

> *I think probably the majority of physical health issues that could exist would be ones having to do with reproductive systems that we don't really identify with, or that don't feel comfortable to us. People put off getting care in those aspects, because they're very uncomfortable about it. I know that's my personal take on it. It's always made me really uncomfortable to get checked out in those ways. I think that a lot of, a lot of health problems could stem from there, just discomfort with going to providers that aren't affirming with this.* (Participant A)

Others discussed how it was difficult to find medical providers and mental health

counselors who were knowledgeable about transgender health care and gender dysphoria. This lack of information led to non-affirming conversations, medical care, and a lack of mental health services.

> *It's just like, "I've come here for counseling help and you won't use my current pronouns. So, you're actually just enforcing the whole reason why I came in here.* (Participant A)

The participants noted that an obstacle to obtaining HRT was obtaining the required HRT letter from their mental health provider. As this letter is required before an individual can start HRT, the participants noted the lack of transgender affirming mental health care providers and cost of counseling, as a barrier to medical care.

> *Well, I guess the biggest obstacle that I can tell is that most people, most trans people, it seems are trying to get in with a therapist, because they have to in order to start the process of HRT. One of the barriers is that a lot of therapists don't already know how to write one of those letters. They've never had to, they've never had trans clients before, or whatever. It's always tough trying to find the right therapist to get you what you need when you're trying to transition. That's what I would say is probably the biggest barrier.* (Participant E)

> *But on the other hand, I don't need a cisgender therapist telling me how trans I am, to be able to get hormones.* (Participant A)

> *I can't find any. I can't find ... I just can't find a good therapist. And you got to be able to afford them. You either got to have insurance, but even with that you got to be able to afford a copay. And it just all comes back to employment is hard, which makes insurance hard, which makes it hard to access services.* (Participant F)

Medical and mental health providers using dead names, using the wrong pronoun, or mis-gendering a participant were noted as obstacles that shut down the patient - medical and/or mental health provider relationship.

> *Okay. Yeah, I've heard a lot of stories about some therapists, they won't accept ... They still use your dead name. They use inappropriate pronouns, and how that really does impact from a mental health perspective when you're going into a small room with a therapist, that that really does make a significant impact in the counseling. It's just barriers that they're putting up that are making it even harder.* (Participant A)

> *Again, I guess it just goes back to a lot of people not really being used to dealing with trans patients or clients. Getting past that in your head, that they're going to mis-gender you the whole time, that you go for a doctor's appointment, they're going to mis-gender you. If you go in there and you're there to talk about your problems, or whatever, you feel like automatically everybody's already going to mis-gender you. That's the assumption, that no matter what kind of appointment you're going to, it makes you nervous that it's going to make you feel terrible after you leave.* (Participant J)

Others shared concerns about how they cannot get medical care because medical providers refuse to care for them because of them being transgender.

> *I know that the medical field is probably taught not to discriminate, but I've heard it not just in the trans community, trans men, but also the trans women, they refuse care and that's illegal.* (Participant I)

> *I know I recently had top surgery a year ago. I didn't have any issues with that except for [local hospital A] would not let the physician do their top surgery there because they said it was a sex reassignment surgery. So instead of doing it at [local hospital A] we had to do it at [local hospital B].* (Participant J)

A lack of health insurance and the cost of mental health services was shared by many as a significant barrier.

> *It's just been very ... it's very hard, especially if you don't have insurance, which I don't have right now. It's even more difficult because you're limited on who you can even try to go to.* (Participant F)

> *My testosterone costs about $180 a month per bottle. And that's with the coupon. Right now I'm trying to run it through my insurance, but I changed insurances so they don't have my letter, but I can't get it right*

> *now. Which sucks. Hopefully it'll bring the cost down. Right now the cost is a little bit pricey.* (Participant A)

In addition to the cost of mental health services, limited mental health care options were a barrier for noted by many participants.

> *[Local hospital C], they did treat some trans people back then, but the list to get on was so small and they're only seeing so many around that time and they never were taking on new patients, new trans patients.(*Participant K)

> *Oh, there is one problem that I've had with accessing mental healthcare, and that is I wanted to see a psychiatrist and it took months and months and months for me to have an appointment because they are just booked so far out.* (Participant J)

> *I think, anytime I go to a therapist and having to just unpack everything. And then if it doesn't work out with that therapist now I've got to do that all over again. And by the time you've done that a few times, you're like, "Well, I don't even want to do that anymore. So I'm just going to continue to repress this." Which is not good when you've lived a life of repression.* (Participant F)

> *I called probably around Christmas of last year to start hormone therapy but then you couldn't have, because they're so booked, they don't have appointments for like five or six months.* (Participant M)

> *Oh, there is one problem that I've had with accessing mental healthcare, and that is I wanted to see a psychiatrist and it took months and months and months for me to have an appointment because they are just booked so far out.* (Participant J)

> *I mean, I would just say I know there's a need for more [mental health services]. There's a need for somebody that can do, like on a sliding scale, that can do therapy for trans men.*. (Participant F)

Participants further expressed that living in the South impacted their ability to receive medical and mental health care, obtain employment, seek full time employment,

and live without fear, depression, or anxiety. Participant A described the fear of living in the South and being transgender male:

> *I think since a majority of the people here are Republicans and homophobic and transphobic, it can make it hard to really know who to trust with such information. If the fear of what if someone finds out I'm trans and you won't really ... There's a fear that more often than not, they're going to not like that. So yeah, it definitely makes it harder to really, I feel like, to be yourself when you're trans.*

Other participants expressed similar sentiments:

> *Well like I said, with the hysterectomy stuff, it's because we live in the South, okay? We're in the Bible belt. No one wants to admit that they're keeping people with female bodies from getting what they want medically. They don't want to admit that they're keeping people, woman bodies. They don't want to admit that they're controlling their ability to have children or not. I've known people who, they can't physically have children, but they're forced to still have a period every month, because their medical provider will not let them get a hysterectomy. It's like they don't want it. They don't want to admit that they're controlling women's bodies like that.* (Participant H)

> *…but mainly, because we are in the South and a lot of them have the Southern Baptist or some kind of religious beliefs and they can't really treat somebody properly with those kinds of beliefs, I don't think, so.* (Participant C)

> *We live in a very conservative state and sometimes I hate the fact that I live here because people are so conservative*. (Participant I)

In summary, participants noted multiple obstacles for a transgender male trying to access medical and mental health services. A reoccurring point that was raised by many was finding an affirming provider to provide medical and mental health services. Participants expressed that the cost of HRT and mental health services was a barrier. As such, many relayed that having health insurance could eliminate some barriers to medical and mental health care.

Cues to Action

Participants were asked questions to determine what cue, or action/s would motivate the transgender male community to obtain and engage in mental health or medical services. Specific questions asked included: *What kind of reminders do you need to seek medical services? What kind of reminders do you need to seek mental health services? What needs do you have that must be met to receive medical services? What needs do you have that must be met to receive mental health services? What kind of assurance do you need that your health care provider is transgender affirming? What kind of assurances do you need that your mental health care provider is transgender affirming? How can we better spread the word about transgender affirming medical and mental health care?*

A prominent theme was that having a specific medical and mental health provider specializing in transgender health and mental health care must be met in order for a transgender male to engage and receive medical services. As noted throughout the interviews, an affirming provider was also a necessity to engage and receive medical and mental health services for many transgender male patients.

> *Other than like the body dysphoria and stuff like that. I know like for me I have a lot of health issues, but it's genetics and stuff. But I know like if I go to, probably the main thing is just the body dysphoria and stuff and getting the right doctor to do the surgeries right without botching you up*. (Participant D)

> *Definitely more understanding of just transgender people in general, that it wouldn't be ... The doctor knowing from the get-go how just in general what a transgender person may go through so that it's not a bunch of questions or just not make someone's gender part of this thing if it's not necessary because then it's just ... Because that's when it can feel more embarrassing and vulnerable.* (Participant A)

> *If an individual quits taking their HRT prescription, their body starts to change, their menstrual cycle could start again, and there is a risk for depression and anger. These changes services served as a reminder to make a medical and/or mental health appointment. So that was kind of like a reminder that I need to do something about it. And then physically since I was off T for seven months, when you're on T, your fat distribution changes, and your breasts shrink, and your hips get smaller, and your midsection kind of straightens out. And since I was off T those things are, what is it, they are not permanent. So when you go off T it goes back. And so I was looking at my body every day and being like, "I need to do something about this." But I had already set up the appointment, it was just months away. So there wasn't really anything I could do. But I was constantly reminded about it.* (Participant J)

> *I don't know that there's any reminder other than just living in my skin every day is a reminder that there's always things that I need to ... I mean, I haven't taken my T in several months now. And everything is changing, just because your emotions changed so much when you're on it. And so to be on it and then off of it for a little while ... because I was on it for two and a half years.* (Participant F)

> *Depression, anxiety, and other mental health concerns also served as a reminder to make a medical and/or mental health appointment. I guess physically and mentally I would realize that I need to seek care, like lately since I have been kind of depressed, I realized that I have been depressed because I haven't really been cleaning as much or having fun doing things that I normally do. Or like what else? Cooking as much. And so I realized all that was happening and I was like, "Maybe I should go see my therapist again or something."* (Participant J)

Others shared that it was important to them that they had assurances that their medical and mental health provider were transgender friendly before engaging in medical and mental health care. They expressed assurances in the form of transgender friendly signage on the door, website information, transgender promotional brochures, and being known in the community as a transgender affirming provider. For many, it was imperative that new patient paperwork included transgender friendly questions such as gender identification (male, female, transgender female, transgender male), dead name (for insurance purposes), preferred name, sex at birth, and partner versus spouse.

> *Or if there's like a signup that the doctors could do voluntarily to say like, "This is a safe place." And it's like a confidential thing that you can only access coming to a place like this being like, "I need to see a doctor but I don't want to be uncomfortable." Because then, I understand, especially in Alabama that doctors don't want everyone to know that they support counterculture or whatever. Because some people would be like, "Well, I'm not going to you anymore." If they knew that.* (Participant J)

When asked what needs do you have that must be met to engage in medical and mental health care, an overwhelming majority of the participants indicated that they needed to know that they had an affirming provider before they could feel comfortable obtaining and engaging in medical and mental health services.

> *The doctor I just went to this week, he came in and said, "Hey Mr." I was like, "Oh cool. He actually said Mr. Let's go." His whole staff was really cool too, and they were like, "Yeah, what's up, man? I'm like, "What's up?" Yeah, you definitely need to let loose some information to show them that you do present this way, and if they react the way that you'd want them to, like saying he and him pronoun, stuff like that, you know that you're in a good place.* (Participant H)

The transgender community has significant needs before they can or will be motivated to engage with medical and mental health providers. Comments concerning a lack of free services, transportation options, money, insurance, and programs dominated many of the conversation. Participants shared suggestions to motivate them to engage with medical and mental health included: providing case managers to transgender patients to assist with insurance policies and questions; discounted or sliding scales for medical and mental health appointments; and providing transportation options.

> *Well, transportation to the doctor and then either insurance or a healthcare provider that has either a sliding scale or, yeah. I guess sliding scale or income-based payment options.* (Participant L)

> *If there was some sort of case management that could hear these types of ... have these conversations to figure out, to identify some services, that would help. I think that would be phenomenal. Which we did have that at one time through Free To Be, but now they're no more. They had free case management, and that was pretty cool. But to my knowledge, nothing like that exists anymore.* (Participant C)

> *But I think it'd be great to kind of have free therapy for everyone. I mean, I think it'd be a hard workload on the therapist and we have to kind of find a balance, but I think that'd be fantastic.* (Participant A)

> *Well, transportation to the doctor and then either insurance or a healthcare provider that has either a sliding scale or, yeah. I guess sliding scale or income-based payment options.* (Participant L)

Further, participants provided a variety of ideas on how the transgender affirming medical and mental health providers could engage the community to motivate them to obtain and engage in mental health or medical services. Ideas included the medical and mental health providers hosting an open house to "meet the providers," hosting a social event, facilitating career fairs for companies that hire transgender individuals, and promotional brochures. It was noted, by Participant C, that the affirming providers must not be afraid to tell the public that they provide transgender services.

> *Basically they were like, "Here's some snacks. Here's some sandwiches. Come meet the doctors and the therapists and the counselors we have here and we'll tell you a little bit about our services and here's a fan and some pronoun pins.* (Participant A)

> *And if you can branch off of resources from each other. Just get to know, put a face to it all. Because that's the only thing that, really kind of lacking for me. I don't go around asking guys, "Hey, I think your trans. What's up man?" It's not a thing. So, it's hard to have their resource amongst each other to be able to talk and just get an idea or gain a new buddy, who knows.* (Participant K)

> *Not be afraid to advertise it. Alabama is obviously terrified to advertise that, because we live in a bible belt state, and people, there are those people that don't want their doctor being involved with trans or anything like that. And I have heard that, my nurse practitioner told me that the reason why it's so hard to find these people is because of that reason, because they don't put it in their services because of just the beliefs and being a doctor, some doctors are easy about it and some are not. So you really have to dig deep just to find a good doctor, a doctor or surgeon, both of them actually*. (Participant C)

When asked how services to the transgender male community might be targeted to the community, many of the participants shared that social media, such as Facebook and Instagram, was the easy "go-to" for how most find each other and the resources in the community. They noted how individuals on social media were hosting "support groups," chat groups, resource guidance, and informal question and answer opportunities.

> *That's a tough one really. Because, I mean, every ... a lot of things honestly just come down to social media, I think, with people looking for things and finding things. Because there's so many ... like I'm in so many different trans male Facebook groups and stuff like that, where we all get advice and opinions from each other because we don't know where else to go. Or just to have the support. Get the advice on if you've had this surgery or that surgery and what are you experiencing, because who else can we go to but each other?* (Participant F)

> *I think most people through social media already know most of what they need to know about it. I definitely think that it needs to be more in depth because I've heard about a lot of people who transition who don't know about the changes that are going to happen to your body. Before I started coming here and learning, I learned about it. I went on the internet, my girlfriend helped me. I learned about most of the changes and all that kind of stuff, weight gain, weight distribution and all that stuff.* (Participant G)

> *I mean, I think it's difficult because how do you get it out? How do you start what you're going to have to give to the trans community? And then how do you find the trans community? And then how do we find it? And again, I think a lot of it, it does, it just comes back to social media because that's where everybody goes to look for help on it. At least that's my experience in our community. That's how we connect with other people like us to be able to find out about other things. Maybe there's some other great*

> *way to find out about things, but online and then social media, I don't know any other way other than just finding out from the doctor.* (Participant F)

A mentorship program was suggested by many of the participants as a way to engage transgender males in mental health and medical care. Their suggestions included medical providers hosting a mentorship program and pairing up transgender males who have been on HRT for a length of time with transgender males that are in the process of obtaining HRT.

> *Anybody who is even thinking about transitioning, needs to talk to someone who is transitioning. When it comes to that, obviously you can't trust the internet. When it comes to, the best route is to talk to someone, to find someone who is transitioning and who's gone through it for a while. Five months is different from two years. But it's still your own experience, so the best way to get any type of information is through the people that are doing it now, which is myself and other... I like to call them my brothers, that are doing it.* (Participant C)

In summary, when participants were queried about what cue or action would motivate them to seek and engage in mental or medical services, participants offered a variety of cues including: having prominent social media advertising, integrating services into the community and not hiding their services. Further, many expressed a desire for transgender case management, free counseling, and transportations services as needs that must be met before medical and mental health services could be accessed.

Self-efficacy

Participants were asked questions to determine what services or programs would increase the transgender male community's confidence in seeking and accessing mental health or medical services. Specific questions asked included: *How confident are you to seek medical and mental health services? Can you give me examples of the services or programs that would increase your confidence to seek medical services? Describe for me*

examples of services or programs that would increase your confidence to seek mental health services if needed?

Some shared that they may initially have some confidence issues but knowing that the services that they will receive helps them. For instance, Participant A stated:

> *I'd say at first I kind of had to get over a hurdle. Because anxiety is a bitch, but once I do, I'm pretty motivated to get there and get it done. The testosterone is definitely a big factor in that.* (Participant A)

Others suggested hosting free programs, facilitating transgender male support groups, or hiring case managers specific to transgender medical and mental health were ways to increase their confidence in seeking care.

> *Having some caseworkers that could assist people with finding those services. Because I mean, whether or not they exist is another question that I would have. Like I don't know how many services are really geared towards trans men specifically, or if they're already... But as far as some services here that might help with... I mean, I guess some caseworkers that can find those services.* (Participant A)

> *By name I wouldn't know them, but like I said, there's a bunch of... I can't think of the support groups that I've hooked some friends up with, but all of those, anything that you find online, I would just, I'd tell you to definitely do it. Any kind of support group is better than just being alone or feeling like you're alone. If that makes sense.* (Participant M)

A sentiment shared by a number of participants was how having an affirming medical or mental health provider plays a pivotal role in how they felt about seeking care.

> *The ability for doctors not to turn away patients based on their own beliefs. That would help because a lot of people don't want to go to certain doctors because they know that they're not going to believe them or listen to them and stuff like that.* (Participant G)

Themes that emerged from qualitative analysis of Health Belief Model constructs

The transgender male participants provided thoughtful insight on the barriers and facilitators to the transgender community seeking or not seeking medical and/or mental health services. Based on the HBM, through the 13 in-depth interviews, we were able to gain insight into the needs of the transgender male community related to medical services and mental health care.

As shown in Table 16, the HBM constructs helped explain the barriers and facilitators with corresponding themes and sub-themes emerging. In terms of barriers, there were four themes: affirming provider; lack of resources; fear, anxiety, depression; and, competent providers. The corresponding HBM constructs were perceived barriers, perceived susceptibility, perceived severity, and self-efficacy. In terms of facilitators, there were three themes: affirming providers, self-advocacy, and non-traditional advocates. The corresponding HBM constructs were cues to action, perceived benefits, self-efficacy, perceived susceptibility, and perceived barriers.

Table 16: HBM Constructs

Barriers/ Facilitators	**Themes**	**Sub-themes**	**Health Belief Construct**
Barriers	Affirming Provider	Religious beliefs	Perceived Barriers Perceived Susceptibility
		Body dysphoria	
	Lack of Resources	Community (providers, transportation)	Self-Efficacy Perceived Barriers Perceived Severity
		Financial (health insurance, prescriptions, surgery)	
		Mental health providers	
	Fear, Anxiety, Depression	Disclosure to family, lack of family support	Perceived Severity Perceived Susceptibility
		Disclosure to provider	
		Living in the South	

	Competent Providers	Unable to meet physical needs	Perceived Barriers
		Unable to meet emotional needs	
Facilitators	Affirming Providers	Ease of obtaining letter, services	Cues to Action Perceived Benefits Self-Efficacy
		Welcoming facility (signage, wording of medical forms and new patient forms)	
	Self-Advocacy	Desire to stay healthy mentally	Perceived Benefits Self-Efficacy
		Desire to stay healthy physically	
		Prescription (HRT) adherence	
	Non-Traditional Advocates	Provides referrals	Perceived Barriers Perceived Benefits Perceived Susceptibility
		Motivator to physical and mental health care	
		Facilitator to physical and mental health care	

Barriers

Affirming Provider. Participants overwhelmingly discussed how not having an affirming provider was a key issue for them in accessing medical and mental health services. As sub-themes of having an affirming provider, issues with religious beliefs and body dysphoria were stated by many. Participant D discussed how living in the South impacted their ability to trust their medical and mental health provider:

> *a lot of them have the Southern Baptist or some kind of religious beliefs and they can't really treat somebody properly with those kinds of beliefs, I don't think, so.*

Whereas, Participant M shared

> *Well, I think all trans people, not just transgender men but like women and non-binary trans people struggle with not presenting the way that they want to. And so it can be very disheartening to know that you cannot do anything to change your body in that exact moment to make it so that*

> *you're comfortable. Because even if you are medically transitioning, that's something that takes time. And so it can kind of grate on your morale really bad.*

Lack of Resources. Participants talked about not having sufficient resources for mental health and that this impacted their ability to receive their required HRT letter. The lack of mental health resources they shared centered on a lack of community providers and transportation, financial concerns with health insurance prescriptions and surgery, and not having sufficient numbers of mental health providers who are accessible, affordable, and affirming. Participant J discussed how transportation was a barrier to receive medical and mental health services:

> *someone who can't drive or can't afford to drive, it would be helpful to have a patient pickup service or an in home visit type of thing.*

Additionally, Participant F shared that financial concerns with health insurance and prescriptions were lacking resources that concerned them and created barriers to care:

> *but it may be ... it's just been very ... it's very hard, especially if you don't have insurance, which I don't have right now. It's even more difficult because you're limited on who you can even try to go to.*

Others explained that mental health providers were sparse. For example, Participant A explained that:

> *I think a mental health provider reaching out to the local trans community is being like, "I'm here, I'm good and I'm going to help you regardless of if you could pay for it now it's helpful.*

Fear, Anxiety, and Depression. A consistent barrier expressed by the transgender male patients was how their fear, anxiety, and/or depression centered around their life experiences, past negative and discriminatory behavior towards them, and their constant battle with mental health issues**.** Participant A explains that:

> *If the fear of what if someone finds out I'm trans and you won't really ... There's a fear that more often than not, they're going to not like that. So yeah, it definitely makes it harder to really, I feel like, to be yourself when you're trans.*

Fear, anxiety, and depression manifested in a variety of ways that included disclosure to family / lack of family support, disclosure to provider, and living in the South. In terms of disclosure to family / lack of family support, they shared how this impaired their ability to receive medical care. This sentiment is echoed in Participant A thoughts:

> *There are times when I, even just going to the dermatologist I'm afraid that they're going to see that ... They're going to hear my voice and see my face and then see that my sex does not say male. There's always that underlying fear that what if they don't want to treat me or what if they purposely just say something that is not wrong with me or whatever, they don't properly diagnose me with something, whether a dermatologist, dentist, or just a doctor in general.*

Building on this, Participant F described how not having family support furthered their anxiety and depression:

> *But, yeah, I mean, there's just so much, I think, self harm and just so many mental health issues that come along with it. Because it's already hard enough when you don't have family support.*

The fear of living in the South, was a dominating force for so many of the participants and this fear created barriers to engage in medical and mental health care. Participant M expressed how their fear and anxiety lead to depression and a lack of support:

> *If you don't have family, if you don't have support, that leads to depression, which can lead to a drug abuse and suicide unfortunately. We see*

> *that a lot with the LGBT community, especially here in the South. You don't have a lot of family and friends that are going to support because of where you're at.*

Competent Providers. Having competent providers was expressed by many as a barrier to them seeking and engaging in medical and mental health care. Many believed that there were not enough competent providers that were knowledgeable about the transgender male community. As such, they did not feel that they could seek out competent providers to meet their physical and mental health needs.

In their opinion, due to the lack of providers that could serve their transgender needs, there was concern that providers were unable to meet their physical needs including HRT and general medicine. Participant L describes:

> *And also just a lack of understanding of how testosterone can affect our bodies and there being a really big gap in understanding how testosterone works and possible complications that may come up and how to address those complications.*

Another major factor in wanting to have providers who were competent, and affirming were the lack of available providers that could meet their mental health needs. Participant J expressed that the affirming providers are overbooked with long waiting times:

> *Oh, there is one problem that I've had with accessing mental healthcare, and that is I wanted to see a psychiatrist and it took months and months and months for me to have an appointment because they are just booked so far out.*

Facilitators

Affirming Providers. The facility that housed the medical and mental health provider was a motivator for services. Participants noted that having a welcoming facility

with LGBTQ friendly signage could decrease their anxiety of entering the facility for the intake appointment. It was imperative that the facility ensure that the wording of medical forms, new patient forms, and medical questionnaires included the transgender gender identification and that pronouns were included and respected by the staff. Participant A noted,

> *I see a lot of mental health intake forms and medical forms where they don't ask their pronouns or they're not engaging in that conversation. Do you instantly when you don't see something like that, does it instantly kind of put a wave on you where you're just like, "Ugh, I'm going to have to ... I'm in a place that's not affirming?"*

Participants noted that the ease of obtaining their HRT letter from their mental health provider was a benefit to receiving medical services. The ability to receive the HRT letter allowed them a faster and less stressful route to the HRT prescriptions. Participant D noted that:

> *The hardest part is getting letters to fulfill what insurance needs to cover your stuff.*

Self-Advocacy. The desire to start HRT is a long process and can be met with many obstacles. It is imperative that the patient create a network of affirming medical and mental health providers. The desire to stay healthy physically is imperative to start HRT and stay on the prescription long-term. Patients must maintain their doctor appointments quarterly and ensure that their blood pressure, cholesterol, and BMI are maintained at a healthy level to avoid strokes and other medical complications. Participant D explains:

> *It could get pretty serious, especially with like, because when you're on testosterone, everything changes like your cholesterol and everything. So if it's not being done right, I mean you can really end up with some really bad issues.*

The desire to stay mentally healthy is a top priority for those on HRT. HRT side effects could include depression, anger, and an exacerbation of other pre-existing mental health issues. It is imperative that patients participate in their mental health care and keep open communication with their mental health provider. Participant C is an example of a patient that is an advocate for his physical and mental health:

> *Actually, I've been on it for two years now, and it's all the time. Any, well with my personality, small things tick me off. If it gets to be a legit situation where I'm mad, it's... Oh, it's, it scary. I never imagined myself that way before I started, so anger is definitely one of the top five [effects]*

Once a patient is prescribed HRT, it is of the upmost importance that they adhere to the medication as prescribed. A sudden stop in taking HRT will have adverse medical side effects for the transgender male. HRT prescription adherence is a way the patient can be his own advocate. Patient C describes the consequences of canceling their medical appointment, not being able to have their HRT prescription filled, and the side effects that occurred:

> *I actually, I had actually stopped T for about four months due to an incident that happened in my life. And that had to be a very, very tough situation because being a trans male, you still have a uterus. And when you're off T, your period starts coming back and that is absolutely the worst feeling I ever would have to feel again… It was very mentally hard for me to be off of it, and not be able to get it and I'm literally having a cycle and that was hard. Just the fact that I have to put a tampon in. And after something like that, that's almost... I didn't have a menstrual cycle for almost a year. So just that and then having to pass all that was rough, because I was having to do this for two weeks and I felt absolutely horrible. This is not me.*

<u>*Non-traditional advocates.*</u> Throughout the interviews, it was apparent that non-traditional advocates for the transgender male participants made an impact in their quest

to seek medical and mental health services. Participant C explains how a medical provider, who did not have any knowledge of transgender health, did research, and found an affirming provider:

> *I've been going to about four or five years so she's watched me transition. It's a small town so it's not like everybody there is a gay person or anything like that. She has been very helpful. She's been nice. She's never treated me like I wasn't normal. And she's always just, she knows me and my girlfriend and my family and everything like that. She remembers that. That's helpful. I'm not just another patient, kind of numbers type thing.*

The non-traditional advocates were a motivator to seek physical and mental health care for many transgender male patients, especially for those who lacked resources or a knowledge of the community. Participant C explains how an individual facilitated an appointment for him with an affirming provider:

> *Actually, before I started, my nurse practitioner actually pushed me. She was my backbone of this whole thing. She actually was like, "If you want to do this, you need to do it." And she actually would get out my phone and tell me all these doctors' names, give me their phone number, stuff like that. And I would just be on my own, but with her in the same room.*

The quantitative and qualitative data support that the transgender male patient needs the medical and mental health providers to be transgender affirming. If there are facilitators and non-traditional advocates, the burden of transgender health care is minimized benefiting the patient. The transgender male community shared that they need a mechanism to streamline the services and referrals required to access general medical and mental health care and to the specialized care of HRT.

Overall, this study shed new light on the many and varied obstacles and challenges facing the transgender male community as well as facilitators that may prove helpful to the transgender male community seeking care as well as ways to improve access to medical services and mental health care.

CHAPTER 5

DISCUSSION

This chapter includes the discussion of the findings. It discusses the quantitative and qualitative findings and the integration of the findings. The chapter then discusses the limitations of the study, the implications of the study, and recommendations for future research.

Discussion of Quantitative findings

In Aim 1, we explored whether the physical health disparities in the transgender male community as compared with the general population. Based on the literature, we had hypothesized that there would be elevated rates of physical adverse health conditions in the transgender male population compared with the general public. These health conditions included hypertension, diabetes, depression, tobacco use, obesity, high cholesterol, and an absence of gynecological exams. Much of the research conducted on the transgender male community indicated that transgender males experience a higher rate of social and economic marginalization, physical abuse, and sexual abuse as compared to the general public (Equality, 2012). Literature presented that fear, anxiety, and a lack of affirming providers are the reasons the transgender male community is resistant to seek physical and mental health care and that 48% of transgender men have delayed or avoided preventive health care such as pelvic exams or STI testing (Equality, 2012). Although largely ignored in the HIV and STI research and testing, the transgender male and female community has a higher incidence of risk factors that put them at risk for HIV and STI (Office of Disease Prevention and Health Promotion, 2019). Transgender men, often

overlooked for HIV/STI risk assessment by health care providers, are engaging in behaviors that put them at risk for HIV/STI that include needle sharing, unprotected sex with male partners, and sex work (Hsieh, 2005). Fenway Health, a leading transgender medical and mental health clinic, has conducted transgender male specific research for multiple years and tracks trends in the community. Fenway Health estimates that 25% of the transgender male population abuse drugs and 26% abuse alcohol (Fenway Health, 2015).

Our findings indicate that overall MCWC transgender male patients were younger, physically and medically healthier than we hypothesized from the literature review. All of the MCWC transgender patients were under the age of 55 and 5% (n = 7) were age 45 - 54. The low percentage of obesity and diabetes, as compared to the national average, could be contributed to the lower age of the patients where they are not recommended to have a pap smear until the age of age 21 - 29 every 3 years (Force, 2018).

Our findings of the overall physical health of the MCWC transgender male patients indicated otherwise and the health disparities assumptions of the MCWC patient was not congruent with the assumptions we made in Aim 1. Given the data collected in this research, we did not find evidence of physical health disparities. Assumptions can be made that the physical health of the transgender male population at MCWC was overall healthier than the literature suggested due to the young age of the MCWC transgender male patient, 88% under the age of 35. Clearly, future research would need to use data from a larger sample to include multivariable analyses, controlling for confounders, such as age.

In Aim 2, we explored the mental health disparities in the transgender male community as compared with the general population. We hypothesized that there would be an

elevated rate of adverse mental health conditions and experiences in the transgender male population compared with the general public, including depression and current or history of alcohol or other substance abuse. Fenway Health concluded that the disparities for the transgender male population are significant and impact an individual's ability to seek medical and mental health and include: experienced discrimination, 65%; survivors of hate violence, 19%; experiencing depression, 62%; and attempted suicide, 41% (Fenway Health, 2015). These disparities can lead to mental health issues such as depression, anxiety, and suicide resulting in a lack of engagement with their medical and mental health needs (Fenway Health, 2015). Fenway Health also noted that a transgender male experiencing depression, anxiety and suicidal thoughts are less likely to engage in full time employment with health insurance benefits as compared to the LGB and heterosexual population (Fenway Health, 2015).

The MCWC transgender male patients had a high rate of depressive disorder and anxiety as compared to the BRFSS transgender male, BRFSS South, and BRFSS all. The MCWC transgender male patients disclosed past mental health diagnosis in their first medical visit to MCWC. The variety of mental health diagnosis were vast, and through the medical chart notes, it could be determined, by the qualitative and quantitative data, that the root of the past mental health diagnosis could be linked to the patient's gender dysphoria, lack of family support concerning their transgender identity, isolation, and depression. Several patients commented to the MCWC medical provider, that starting the transition process forced them to seek therapy for their depression, anxiety, and suicidal thoughts. The rate of past suicide attempts for MCWC transgender male group (9%) was

lower than the suicide rate for the entire population of Alabama(16.6%), though still concerning (Review, 2020). ADHD/ADD percentages for MCWC transgender male patients were also higher than the national average by 3.9% for those that self-reported a past diagnosis and 9% for those that were diagnosed at the first visit by the medical provider (Kessler RC, 2005). Only 6% of MCWC transgender male patients had a past diagnosis of PTSD and 4% had a PTSD diagnosis at their first medical visit by the medical provider. These values are similar to the national average for PTSD diagnosis of 7% - 8% (PTSD, 2019).

The MCWC transgender male retrospective medical chart review relied on the medical providers notes and answers to medical questions given by the patient. There were benefits to not fully disclosing medical and mental health risks to the medical provider. An individual might not disclose substance abuse or sexual high-risk activities (Hoskin, 2012). Taking HRT can lead to blood clots and smoking increases the risk of blood clots for patients. A transgender male patient trying to acquire HRT might manage how they present themselves to the medical provider (Hoskin, 2012). As such, a patient might not self-disclose their smoking habit to a medical provider for fear of not receiving an HRT prescription. Accordingly, the low number of patients reporting smoking could be attributed to concerns over not being able to receive their HRT prescription.

Discussion of Qualitative findings

The HBM provided a framework to understand the barriers and facilitators as described by the transgender male participants. In terms of barriers, the HBM constructs of perceived barriers, perceived susceptibility, perceived severity, and self-efficacy sup-

ported four barrier themes: affirming provider; lack of resources; fear, anxiety, depression; and, competent providers. In terms of facilitators, the HBM constructs of cues to action, perceived benefits, self-efficacy, perceived susceptibility, and perceived barriers supported three facilitator themes: affirming providers, self-advocacy, and non-traditional advocates. These findings are discussed below.

Consistent barriers to medical and mental health services were the lack of affirming providers, community resources, financial resources, and competent providers. To obtain a prescription for HRT, most medical providers, including the MCWC, requires a written letter from the patients licensed professional counselor / therapist. The letter must include a statement that verifies the patient, " meets the DSM-V criteria for Gender Dysphoria and that you are in the opinion of your licensed professional counselor / therapist mentally competent to understand the risks and benefits of hormone therapy (Center, 2020)." The therapist is not bound to a certain number of counseling / therapy visits before they write the letter to the medical provider as it is their decision when the patient meets the criteria. The transgender male patient is highly motivated to obtain and engage in their mental health appointments as they cannot start HRT until the therapist letter has been written.

The transgender male patients at MCWC had become advocates for themselves and their medical and mental health needs breaking down barriers and understanding benefits to engaging in medical and mental health care. One of the biggest fears existed in the unknown and before a medical or mental health appointment, the patient asked themselves, "will my provider be affirming, will they mis-gender me, will I have to tell my story again to someone who does not understand, will this be a nightmare experience?"

Throughout the qualitative interviews, it became apparent that if a transgender male had a facilitator assisting with medical and mental health recommendations of affirming providers, assisting with making the first appointment, and navigating insurance questions made the path to transitioning easier.

Living in the South, rooted in religious beliefs, was also a barrier to care that evoked fear, anger, and mistrust of the medical and mental health community for transgender males. Stories of oppression were given as examples that caused lifelong gender dysphoria, depression, and suicide thoughts / attempts. Most of the noted barriers to mental health care could be dissolved with the integration of affirming providers. Many of the participants shared that affirming medical and mental health care providers need to advertise their services in the community and promote their offices as a safe zone for the transgender community. For the transgender male patients, knowing that their mental health provider was transgender affirming was critical to them seeking and accessing medical and mental health care. It was not necessary for the provider or staff to specifically identify transgender, but it was necessary for paperwork, signage, marketing, and staff to be transgender knowledgeable and make an effort to be affirming. Accessing medical services and mental health care with an affirming provider was imperative for the transgender male community. Finding an affirming provider presented barriers and challenges and could have an impact on physical and mental health. Benefits of having an affirming medial provider and mental health provider eroded barriers such as obtaining the counselor letter, finding the right doctor, having surgery or other specialty medical services. An affirming provider could be the one who broke down walls to medical and mental health care and barriers to care.

An identified source of concern revolved around the expense of medical and mental health care. Limitations and barriers to care included the cost of health insurance, obtaining and paying for HRT prescriptions, medication and medical care, and surgery. If an individual did not have insurance, the cost of transitioning was almost impossible as the HRT prescriptions are expensive, and the surgery are for specialized surgeons limited to a few with a cost exceeding $150,000 (Clary, 2018). An insurance policy was not perfect and presented many challenges such as denying claims that were "gender" specific such as HRT, mammograms, and pap smears. HRT prescriptions, with insurance, were costly and required a monthly refill. Once an individual is on HRT; it is a requirement to visit the medical provider quarterly for bloodwork and medical check-up. The medical provider could also require the patient stay in mental health care. The consequences to stopping HRT are immense and include medical and mental health side effects.

Integrating Quantitative and Qualitative Findings

Mental health issues were consistent areas that were present in both the medical charts and the individual interviews as concerns for the transgender male population. Interestingly, it was discussed as barriers and facilitators for them receiving care. Diagnosis of depressive disorder was an overwhelming 44% at MCWC and those with a history of anxiety at MCWC was 28%. Overall, a majority of the participants openly shared their current and past experiences with depression and anxiety. They noted that, in their opinion, depression and anxiety impacted the transgender male community at a high rate. They expressed many reasons for the depression and anxiety such as body dysphoria, going on or off HRT, not being able to access HRT, and not be able to access needed mental health services. Further, many of the participants considered the medical health issues in

the community as “serious.” They discussed how a lack of mental health providers who were affirming, affordable, and accessible with open appointments were scarce.

It was clear from the qualitative findings that an affirming provider was the gateway to accessing physical and mental health care. An affirming provider was a critical factor for the transgender male population feeling safe to disclose physical and mental health issues, adhere to treatment, and reduce risky behaviors to stay on the path to healthy living. The past experiences of the transgender male with providers who were not affirming could have had an impact on the intake appointment at MCWC and a lack of full disclosure of physical and mental health issues. The patients elaborated how they wanted medical and mental health providers who were able to engage in the community and be able to break down the barriers to medical and mental health care.

In the literature, there is a high percentage of transgender males who engage in high-risk lifestyle behaviors of smoking and drinking. These high-risk behaviors were not disclosed in the intake appointment at MCWC and could be misleading, however. The qualitative interviews help point out that, in the words of the participants, they had concerns about “being able to disclose these behaviors for fear of not having an affirming provider.” Even though MCWC is Alabama’s first and only LGBTQ medical and mental health provider, the history and past experiences of the transgender male patients may potentially have been a barrier that some may not have been able to overcome at the first intake appointment.

Even though the largest percentage, 47% of transgender male patients at MCWC were in the 18 – 24 age group with 88% under the age of 34, the patients reported a high rate of depressive disorder and anxiety. What was resoundingly clear in the qualitative

findings is their expressed lack of mental health providers, lack of free mental health services, and lack of mental health resources. The qualitative findings underscore and help explain the self-reports of depression and anxiety even at the first intake appointment. From the collective findings, it is clear that the barriers to mental health care including transportation and financial resources, stigma around mental health combine to create discrimination, disadvantages, and barriers to care for the transgender male patient.

As 47% of transgender male patients at MCWC were in the 18 – 24 age group, physical health concerns were not revealed in the quantitative data. However, the qualitative interviews did reveal that the transgender male population shared concerns that they would one day develop physical health concerns, related to HRT, including high blood pressure, high cholesterol, strokes, and kidney disease. A noted concern was that when physical health issues present, a non-affirming medical provider would "blame the HRT" for all their medical issues and not look further for causes and treatment. As such, the qualitative data help shed light on the concerns that the patients have and are useful for providers to know as they care for their transgender male patients.

Limitations of data

This study provided a wealth of information and data on the physical and mental health disparities in the transgender male community in a Southern community-based medical LGBTQ organization. However, through there were noteworthy limitations which included:

- Sample size did not allow for a multivariable analyses.
- Eighty-eight percent (88%, n = 114) of the MCWC transgender male participants were under the age of 35.

- The MCWC paperwork, for the first medical visit, did not contain documentation pertaining to past or current history of mammograms.
- According to the CDC, adults should get a baseline A1C test by the medical provider if over the age of 45 years (Prevention, 2018a). Only 5% (n = 7) of participants in this study were over age 45. Of those over 45, 3% (n = 4) had A1C bloodwork the first medical visit.
- The 130 MCWC transgender male medical charts were only reviewed for the first medical visit and there is a possibility missing information and bloodwork was contained in follow-up visits.
- It is a recommended for patients with female breast tissue, unless there is an outlining medical condition, to have their first mammogram at the age of 40 years (Sandhya Pruthi, 2020). Of the MCWC transgender male patients, 10% (n=13) were age 40 and older, and only 2% (n=2) had received a mammogram.
- The intake appointment potentially has limited self-disclosed past medical and mental health history.
- Transgender males may not have always identified as “transgender” on medical and mental health paperwork.
- Notations on mental health records are often varied, vague, and lacking in detail.
- Many transgender males, due to stigma and fear of discrimination, may not have a full-time job and, thus, may also lack health insurance.

Delimitations

- The research study was limited to self-identified transgender males. Additional gender terminology such as *gender non-conforming, gender queer,* or *gender non-binary* were eliminated from the research.
- The scope was limited to medical provider notes and blood work data obtained in the first appointment at the MCWC. Additional medical and mental health data were not reviewed in the retrospective chart study.
- The quantitative retrospective chart review was limited to 130 medical charts as of July 31, 2019.
- The retrospective chart review and individual interviews were limited to participants aged 19 years and older.
- The theoretical framework of the individual interviews is confined to the Health Belief Model (HBM).

Additionally, through the research process of Aim 3, limitations of data were revealed, and they included:

- The transgender male participants who were actively engaged in medical and mental health care at MCWC were more likely to participate in the qualitative interview.
- COVID-19 news coverage, social media posts, and messages were dominating social media and overshadowing recruitment efforts.
- Due to a city and statewide quarantine, recruitment efforts for transgender male participants who had not received medical or mental health care at MCWC was difficult.

The quantitative and qualitative data contained limitations; however, these findings are still critically important and informative for the transgender male community. Even though a limitation was noted on the sample size as it did not allow for multivariable analyses, the sample size of (n = 130) of transgender males in a Southern state is a real strength given the paucity of research on this topic. As a related strength, integrating qualitative data into this research allowed the researcher to better understand the quantitative data. These data are especially relevant and important for those who serve transgender males through medical and mental health care.

Efforts were made to create a safe environment for participants to share their experiences, including but not limited to the researcher and CEO of BAO not facilitating the interviews of participants who had established care at the MCWC, offering the option of phone interviews, and not collecting identifying information.

Lessons learned

Through this research, many lessons were learned and will be the catalyst to create transgender affirming opportunities for medical and mental health providers. Without affirming medical and mental health providers, the transgender male community is faced with limited options and fearful of their encounters with providers. As providers, we must do more to ensure that all staff members are transgender affirming and continue to offer training opportunities. The transgender affirming medical and mental health providers must increase their marketing and let the transgender community know of their services. Small details such as paperwork, signage, and medical questions make a huge difference in the way the patients feel affirmed and included. Having a bad experience at the medical or mental health providers office can halt a patient's transition for years.

As the healthcare system requires that before a transgender male begins to transition, they must have a gender dysphoria diagnosis from a mental health provider, and we must provide access to these mental health providers. Mental health counseling sessions must be provided to the community at a reduced or free cost. We need to engage the mental health provider community in transgender affirming trainings and policies. The mental health providers must be willing to be a facilitator of care for the transgender male patient.

The patients at the MCWC were all under the age of 55 and had limited medical health issues and significant mental health diagnoses in the past. This research data has suggested that the younger we can engage the transgender male patients into medical and mental health care, the healthier they will be throughout their lifetime. Transgender male patients who are actively involved in medical and mental health care at MCWC were, perhaps more inclined to participate in the individual interviews (Aim 3). It can be concluded that if a transgender male is involved in medical or mental health care with an affirming provider, they are more likely to be advocates, participate in research studies, and informed on additional programs.

Recommendations based on Social Ecological Model

Based on the qualitative interviews, recommendations can be assigned to two of the SEM levels: individual and community. The individual level is concentrated within the transgender male patient and their level of medical and mental health knowledge. If the transgender male patient is knowledgeable about transgender medical and mental healthcare, they are more likely to be evolved in care ("Core Principles of the Ecological Model," 2020). Once the transgender male patient is aware of the transgender medical

and mental health barriers and concerns, the community can come together to create solutions or health behavior interventions. The transgender male community has the ability, to create change including societal and policy ("Core Principles of the Ecological Model," 2020). The recommendations are for a transgender affirming medical or mental health provider to start or make program changes to engage transgender males into medical and mental health care. These are described below in terms of the CDC SEM:

Individual.

- Increase advertising and promotion of transgender services (male and female).
- Increase signage in the lobby that signifies LGBTQ friendly including a rainbow flag, pink triangle, and blue, pink, and white flags (transgender flag).
- Employ additional transgender staff members to work at all points of services.
- Offer all mental health counseling services free of charge.
- Facilitate an open house targeting the transgender male community to meet the medical and mental health providers.
- Hire a licensed social worker as a case manager for the transgender male community to break down barriers to medical and mental health care.
- Offer programs that provide transportation options to medical and mental health services.
- Host additional support groups for the transgender male community.
- Increase the number of job fairs hosted each year that target companies that are transgender affirming.
- Increase and continue medical and mental health programs to address stigma barriers.

Community.

- Create messaging that decreases the stigma of mental health care and provide state-wide mental health options.
- Create a resource book of state-wide transgender male affirming providers including surgeons, gynecologist, specialty doctors, and mental health providers.
- Host transgender affirming continuing education units (CEU) opportunities for the medical and mental health providers in the state.

As the researcher has a unique dual position as the CEO of BAO that includes the MCWC, the implications of the dissertation are far-reaching and have great implications for the MCWC who will be moving into a new location to support the transgender community in the coming months.

This transition can capitalize upon the findings of the dissertation and increase the engagement of transgender males in medical and mental health services. Notable recommendations, based on the qualitative interviews, can be integrated into existing MCWC transgender male patient care which include:

- Ensure each transgender male patient is aware of the free LGBTQ legal services offered by BAO.
- Increase the number of mental health providers.
- Create a mentor program or "ask a transgender male" article in the monthly magazine *PINK* published by BAO.
- Hire an additional certified registered nurse practitioner that specializes in mental health treatment.

- Hire an additional medical provider that specializes in HRT.
- In addition to the LGBTQ community free food boxes BAO is distributing June 2020 – January 2021, supplement the food boxes with additional items MCWC transgender patients may need during COVID-19.
- Publish the resource book on the MCWC website.
- In addition to the tele-counseling, tele-support group, and tele-medical services, explore additional tele opportunities to break down barriers to care.

Summary statement

The transgender male population is lacking affirming medical and mental health providers services that can be accessed by those experiencing a lack of health insurance or resources to pay for services. As noted, the SEM has levels of subsystems that guide, support, and influence human development and health behavior (Glanz et al., 2015). The barriers that exist for the transgender male to begin transitioning, and to access mental and mental health care are at all system levels that impact the transgender male ability to obtain physical and mental healthcare in the following ways:

- *Individual factors* such as biological and personal history that could be barriers to accessing medical and mental health services (Prevention, 2020b). Depression, anxiety, and fear have influenced the transgender male sample of this research to seek affirming medical and mental health care.
- *Relationship factors* such as close relationships with family member, friends, and the community have created barriers to interpersonal growth that promotes and encourages engagement in medical and mental health care

(Prevention, 2004). It is also noted that an affirming provider, friend, or facilitator could be the motivator a transgender male needs to become an advocate for their medical and mental health care and seek professional services (Prevention, 2020b).

- *Community factors* did provide encouragement to seek medical and mental health services. Social and friend networks in the transgender community provided support and information on affirming providers. Community based organizations, including the MCWC, provided resources and affirming services. The community factors reduced social isolation and increased advocacy for healthy behaviors (Prevention, 2020b)
- *Societal* factors until recently have been a constant roadblock for the transgender male community that desired to start HRT. The roadblocks included health insurance policies that were gender specific and discriminated against the transgender male. Recent healthcare policies have created additional barriers and challenges for the transgender community seeking medical and mental health care (Prevention, 2020b)

As most successful health behavior change occurs with an integration of all levels, it is imperative we make universal systematic changes to engage the transgender male patient in medical and mental health care.

All the recommendations presented in this research can be achieved by the MCWC and affirming medical and mental health providers. Some recommendations are more immediate and short-term, and others are more long-term evoking systemic

changes. It must be noted that transgender physical health, trends, slang, definitions, and culture are evolving at an amazing rate for research, published articles, and literature. It is critical that we appreciate and honor the recommendations from the transgender male populations. It imperative that we ensure that the transgender male community have a safe space, a voice, and opportunity to educate the general population through the change process and integration of new services and programs.

This research contributes to the next steps by finding innovate programs and services to incorporate the findings of this research. The research can be the foundation for a health behavior communication campaign aimed at the transgender male community with the aim to engage in physical and mental health care. The theory-based health behavioral communication campaign can integrate messaging based on the findings of this research that break down barriers to care, understanding the barriers and cues to action and providing solutions. This intervention can be incorporated into the individual, community, and societal level that is beyond Birmingham, Alabama, and the South.

Recommendations for Future Research

This research, "Exploring the Physical and Mental Health Disparities in the Transgender Male Community in a Southern Community-Based Medical LGBTQ Organization" is a first of its kind for the State of Alabama. The data collected is the foundation for future research that could include:

- Conducting a longitudinal follow-up of all MCWC transgender male patients to track A1C levels, cholesterol levels, and BMI.

- Facilitating another MCWC transgender male retrospective medical chart review that investigates all the medical appointments to find the missing data from the first intake appointment (mammogram, BMI, blood pressure).
- Performing a longitudinal MCWC transgender male chart reviews to track the decrease, new, or continued mental health diagnosis of the transgender male patient as they move through their transition.
- Types of support versus bot texting and "hotlines". Smart text.
- Correlating mental health diagnosis with stage of transition.
- Conducting additional transgender male focus groups and individual interviews to explore specific components of the HBM such as perceived barriers and cues to action.
- Investigating what cues to action motivated the younger transgender male patients at MCWC to engage in medical and mental health care.

Conclusion

There is limited medical and mental health data and research as it relates to the transgender male as compared to the transgender female. As more medical and mental health providers become knowledgeable of transgender care more options are available to the patients. The laws around transgender medical and mental health care are changing and evolving every day. There are no laws that protect the transgender patient requiring health insurance companies to cover transgender related medical procedures or HRT. On the anniversary of the Pulse Nightclub massacre and during Pride month, the US President, on June 12, 2020, gave the health insurance companies permission to discriminate

against transgender health care and paying for transgender care services. According to the *Associated Press* (2020), "*The Department of Health and Human Services said it will enforce sex discrimination protections "according to the plain meaning of the word 'sex' as male or female and as determined by biology.*" This rewrites an Obama-era regulation that sought a broader understanding shaped by a person's internal sense of being male, female, neither or a combination (Alonso-Zaldivar, 2020)." As discussed, to obtain HRT, a transgender male patient must obtain a letter from their therapist with a diagnosis of "gender dysphoria". Gender dysphoria, or "discomfort or distress caused by a discrepancy between the gender that a person identifies as and the gender at birth (Alonso-Zaldivar, 2020)" is now in question as a medical condition by the Trump administration. The implications of this new policy are still unknown and how it will impact the transgender male and female patient. Will the health insurance companies use the policy to deny claims for transgender medical and mental health care?

However, some good news concerning transgender rights that could ultimately impact health care was also determined in June 2020. On June 15, 2020, the US Supreme Court decision Bostock v. Clayton County, was a landmark ruling for the LGBTQ community. The protections of LGBTQ individuals from discrimination as defined by Title VII of the Civil Rights Act of 1964 – and affirmed by this case will provide the foundation and precedent from which LGBTQ rights beyond those pertaining to employment will be defined (Duncan, 2020). According to Sydney Duncan LGBTQ Attorney, BAO, "*Justice Gorsuch, in his opinion, took a textualist approach to the word 'sex.' In essence, the word's meaning was viewed in its plainest sense, so that if an employer terminated an employee and such an action would have yielded a different result if the employee had*

been a difference sex, the employer would be deemed to have violated the protections of Title VII. In Gorsuch's textualist analysis, he noted sex was an inseparable part of the math when calculating the equation of sexual orientation or gender identity" (Duncan, 2020). The Court concluded that discrimination on the basis of sexual orientation and gender identity is discrimination on the basis of sex (Duncan, 2020). The Courts decision "*has now forever defined as legal precedent the fact that discrimination on the basis of sexual orientation or gender identity is discrimination on the basis of sex as defined by the Civil Rights Act of 1964"* (Duncan, 2020). This ruling will be the starting point for new and in-depth gender equality cases to be presented before the Court including transgender restrooms, gender marker changes on birth certificates and official documents, and additional transgender rights.

The transgender male must be given the tools to develop interpersonal communications and solutions to be an advocate for himself in their physical and mental health. Affirming medical and mental health providers can increase programing and services that increase interpersonal skills and they include: active listening, collaboration, clear communication between two people, positive attitude to make a change, and ability to receive feedback (Terrell, 2019). With these skills, the transgender male can offer the community a mechanism to change including altering organizational and system structures for the physical and mental health well-being of the community.

The transgender male population is diverse and complex. Given that the transgender male community is growing, and HRT treatment and surgery are now covered, to some extent by health insurance, work must be done to increase the access to affirming medical and mental health care. Additional transgender specific advocacy must

exist to ensure that affirming providers are in the community offering medical and mental health treatment. These affirming providers must be known in the community through an assertive effort of transgender medical and mental health care promotion. The need for case managers specific to transgender male health and mental health care must be incorporated into the offices of medical and mental health providers. Medical and mental health facilities, like the MCWC, must increase their services, find alternative payment options, and accept sliding free programs to fully meet the needs of their transgender male patients.

Breaking down the barriers to care for the transgender male patient will ensure access to resources and tools needed to be healthy, happy, and find inspiration to become advocates and mentors to the next transgender male generation.

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APPENDIX A

IRB APPROVAL

THE UNIVERSITY OF ALABAMA AT BIRMINGHAM
Office of the Institutional Review Board for Human Use

470 Administration Building
701 20th Street South
Birmingham, AL 35294-0104
205.934.3789 | Fax 205.934.1301 |
irb@uab.edu

APPROVAL LETTER

TO: Musgrove, Karen E.

FROM: University of Alabama at Birmingham Institutional Review Board
Federalwide Assurance # FWA00005960
IORG Registration # IRB00000196 (IRB 01)
IORG Registration # IRB00000726 (IRB 02)

DATE: 07-Jan-2020

RE: IRB-300004355
"Exploring the Physical and Mental Health Disparities in the Transgender Male Community in a Southern Community-Based Medical LGBTQ Organization"

The IRB reviewed and approved the Initial Application submitted on 07-Jan-2020 for the above referenced project. The review was conducted in accordance with UAB's Assurance of Compliance approved by the Department of Health and Human Services.

Type of Review:	Expedited
Expedited Categories:	5, 6, 7
Determination:	Approved
Approval Date:	07-Jan-2020
Approval Period:	Expedited Status Update (ESU)
Expiration Date:	06-Jan-2023

Although annual continuing review is not required for this project, the principal investigator is still responsible for (1) obtaining IRB approval for any modifications before implementing those changes except when necessary to eliminate apparent immediate hazards to the subject, and (2) submitting reportable problems to the IRB. Please see the IRB Guidebook for more information on these topics.

The following apply to this project related to informed consent and/or assent:

- Waiver of Consent Documentation
- Waiver of 24 Hour Waiting Period

Documents Included in Review:

- interview.191118.docx
- phonescript.191210.docx
- hsp.clean.191219
- waiverdocumentation.clean.191219
- flyer.191118.pdf
- infosheet.clean.191219

APPENDIX B

TRANSGENDER MALE INTERVIEW FLYER

APPENDIX C

IN-DEPTH INDEX AND SUPPORT INTERVIEW GUIDE

In-Depth Index and Support Interview Guide
"Exploring the Physical and Mental Health Disparities in the Transgender Male Community in a Southern Community-Based Medical LGBTQ Organization"

(60 - 90 minutes)

Date: _____
Participant ID: _____
In Person: _____ Phone: _____
Current or past patient at MCWC for mental health counseling or medical services:
Yes____ No ____
Time Began: _____
Time Complete: _____
Interviewer: Karen Musgrove _____
Josh Bruce _____

In-Depth Interviewer Guide:
Informed Consent

- Review Informed Consent document thoroughly.
- Answer any questions voiced by the participant.
- Be prepared to offer the participant an opportunity to review the Informed Consent document for up to 24 hours, if requested.
- Have participant sign and date the Informed Consent document on the designated lines.
- Provide your signature as the person obtaining Informed Consent and the date.
- **Review the document to assure that signatures and dates are included.**

Offer either a signed or blank copy of the Informed Consent to the participant. Phone participants will be mailed the Informed Consent to the participants via certified mail.

Introduction

Note to Interviewer (NTI): Please read or paraphrase the italicized text below which indicates the interview script.

Thanks again for taking the time to talk to me this AM/PM. I am going to review a few guidelines about today's discussion that were included in the informed consent document, and I'll answer any questions that you might have, and then we can get started.

As a reminder, the primary goal of this interview is to better understand the physical and mental health disparities in the transgender male community in a southern community-based medical LGBTQ organization.

As listed in the consent, I would like to record this discussion with your permission, which will be labeled with a study ID only that cannot be traced to you. Your name will not be attached to your recording or the information presented about our findings. In order to protect your identity, please use an alias and not your real name.

We are scheduled to meet for about 1 hour today. Before we start, do you have any questions?

Please feel free to stop me at any time if you have questions, need clarification, need to take a break or if you are uncomfortable with the questions. Are you ready to begin?

NTI: Please keep in mind that topics may have been addressed previously in prior sections. As a general rule, ask only questions that have not been addressed in full, or ask for clarification for topics that were addressed only briefly.

Perceived Susceptibility

- In your own words, what are some physical health issues specific to the transgender male community?
- In your own words, how can being a transgender male effect mental health?

Perceived Severity

- What are common medical health care challenges for transgender males?
- What are common mental health care challenges for transgender males?
- Can you tell me an example, if any, of how being transgender male impacted your ability to receive medical care?
- Can you tell me an example, if any, of how being transgender male impacted your ability to receive mental health care?
- How serious are the medical issues for the transgender male community?
- What could come of the transgender male community not seeking medical and mental health care?
- How serious are the transgender male medical and mental health issues?

Perceived Benefits

- Please describe would motivate you to make an appointment with a medical provider.
    - What would be the benefits of engaging in medical care for a transgender male?
- Please describe what would motivate you to make an appointment, if needed, with a mental health provider.
    - What would be the benefits of engaging in mental health care for a transgender male?

Perceived Barriers

- Can you tell me an obstacle, if any, when a transgender male tries to access medical services?
- Can you tell me an obstacle, if any, when a transgender male tries to access mental health services?
- Can you give me an example, if any, of the material costs of seeking medical care as a transgender male?
- Can you give me an example, if any, of the material costs of seeking mental health services as a transgender male?

Cue to Action

- What kind of reminders do you need to seek medical services?
- What kind of reminders do you need to seek mental health services?
- What needs do you have that must be met to receive medical services?
- What needs do you have that must be met to receive mental health services?
- What kind of assurance do you need that your health care provider is transgender affirming?
- What kind of assurances do you need that your mental health care provider is transgender affirming?
- How can we better spread the word about transgender affirming medical and mental health care?

Self-Efficacy

- How confident are you to seek medical and mental health services?
    - Can you give me examples of the services or programs that would increase your confidence to seek medical services?
    - Describe for me examples of services or programs that would increase your confidence to seek mental health services if needed?

Closing

We have completed all the questions. Would you be interested in adding additional thoughts to any of today's topics? Are there topics that we might have missed? Do you have questions for me?

As I review my notes, would it be ok to contact you if I have additional questions?

NTI: Record Yes/No response only. Collect contact info on a separate sheet to keep materials free of identifiers).

Thank you so much for your time and for your candid responses today.

E. Compensation

- Provide prepared $20.00 gift card with designated compensation enclosed.

APPENDIX D

IN-DEPTH INDEX AND SUPPORT INTERVIEW GUIDE PHONE SCREENING AND SCHEDULING

In-Depth Index and Support Interview Guide
"Exploring the Physical and Mental Health Disparities in the Transgender Male Community in a Southern Community-Based Medical LGBTQ Organization"

Phone screening / scheduling

Date: _____

As a reminder, the primary goal of this interview is to better understand the physical and mental health disparities in the transgender male community in a southern community-based medical LGBTQ organization. I have a few questions to determine if you are eligible to participate:

Question	Answer YES	Answer NO
Do you identify as transgender male?		
Do you speak English?		
Are you willing to participate in an individual interview concerning the barriers to medical and mental health care for transgender male individuals?		
Are you at least 19 years of age?		

Question	Answer YES	Answer NO
Do I have your permission to call and remind you about the individual interview the day before?		

Question	Answer YES	Answer NO
Have you ever or are you currently a patient at the Magic City Wellness Center for mental health counseling or medical services?		

Answer YES, Appointment will be with Josh Bruce.
Answer NO. Appointment will be with Karen Musgrove.

Question	Answer
Would you prefer the interview take place via phone or in person at the Magic City Wellness Center?	

Participant ID: _____ Contact number (for reminder):_____
In Person: _____ Phone: _____
Interviewer: Karen Musgrove _____ Josh Bruce _____
Day: _____ Time:_____
Contact number (for phone interview) _____

Signature: _____ Date: _____

APPENDIX E

PROTOCOL OVERSIGHT REVIEW FORM

UAB SCHOOL OF PUBLIC HEALTH

Institutional Review Board

Protocol Oversight Review Form

Date Submitted to IRB: **November 15, 2019**

Title of Project: **"Exploring the Physical and Mental Health Disparities in the Transgender Male Community in a Southern Community-Based Medical LGBTQ Organization"**

Name of Principal Investigator: **Karen Musgrove**

Signature of Principal Investigator: _____

School: **Public Health**

Department: **Health Behavior**

Division: ____

Review Process (as determined by Department Chair):

- ☒ Departmental Review
- ☐ Divisional Review (Division Director or Designate)
- ☐ Center or Departmental Protocol Review Committee Review
- ☐ Project Review Panel (PRP)—Appointed by the Department Chairman or Division Director (PRP report attached)

I have reviewed the proposed research and concluded that the following apply:

- The research is scientifically valid and is likely to answer the scientific question;
- The researcher and the study team are qualified and/or credentialed to conduct the procedures proposed;
- The researcher has identified sufficient resources in terms of experienced research personnel, facilities, and availability of medical or psychological services that may be necessary as a consequence of participation in the research to protect the research participants.

Name of Official: Peter Hendricks (type or print)

Title: Associate Professor

Signature: _____

Date: 11/15/19

Health Behavior
227 Ryals Public Health Building
1665 University Boulevard
205.934.6020
Fax 205.934.9325

The University of Alabama at Birmingham
Mailing Address:
RPHB 227
1530 3RD AVE S
BIRMINGHAM AL 35294-0022

APPENDIX F

SITE PERMISSION

MAGIC CITY
Wellness Center
A BAO Affiliated Program

From: Will Rainer, Director of Magic City Wellness Center

TO: University of Alabama at Birmingham Institutional Review Board
Federalwide Assurance # FWA00005960
IORG Registration # IRB00000196 (IRB 01)
IORG Registration # IRB00000726 (IRB 02)

DATE: 06-Jan-2020

RE: IRB-300004355
"Exploring the Physical and Mental Health Disparities in the Transgender Male Community in a Southern Community-Based Medical LGBTQ Organization"

Karen Musgrove has the permission of the Magic City Wellness Center to access the facility and patients for the purposes of her study, "Exploring the Physical and Mental Health Disparities in the Transgender Male Community in a Southern Community-Based Medical LGBTQ Organization".

Please contact me if you need additional information at Will@mcwc-bao.org or 205.877.8677.