Influences of Masculinity on Health Behaviors

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Influences of Masculinity on Health Behaviors

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

By

Tessa Louise Miracle
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Wright State University
Approval Sheet

WRIGHT STATE UNIVERSITY
GRADUATE SCHOOL

August 26, 2016

I HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER
MY SUPERVISION BY Tessa Louise Miracle ENTITLED Influences of
Masculinity on Health Behavior BE ACCEPTED IN PARTIAL FULFILLMENT OF
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Abstract

Gender schema explains the processes by which gender stereotypes become so psychologically ingrained in individuals in our society, but how does gender schema impact health care practices? The purpose of this study was to investigate how ingrained gender stereotypes not only influence day to day activities but also impact health, by limiting health protective and help seeking behaviors. The Masculine Behavior Scale (MBS) was used to determine if men with strong gender schemata engage in health risking behavior more than men with a weaker gender schemata or women of any gender schemata. To investigate the mediating effect gender has on healthcare behaviors and attitudes, a voluntary non experimental correlation questionnaire was administered to voluntary participants at a mid-size Midwestern University. Key research questions included; do men agree more with the items on the Masculine Behavior Scale, does increased agreement with the Masculine Behavior Scale correlate with patient satisfaction, does Masculine Behavior Score relate to health protective behaviors and will higher education mitigate the impact of gendered expectations? The Masculine Behavior Score of participants was not found to correlate with identified gender as expected, men did not identify with the masculine behaviors identified by this scale more than female participants. Masculine Behavior Score was not found to influence health protective behaviors or patient satisfaction in a statistically significant manner. While the research
questions of this study were not supported, it is possible the small sample or the population sampled may have impacted the study.
Contents

Introduction .......................................................................................................................... 1

Research Question .............................................................................................................. 1

Defining Terms ................................................................................................................... 4

Review of Literature .......................................................................................................... 5

Masculinity, gender and health .......................................................................................... 9

Masculinity and Mental Health ......................................................................................... 12

Masculinity and Work ....................................................................................................... 13

Masculinity and Risky Behavior ....................................................................................... 16

Male Avoidance of Care .................................................................................................... 17

Gender and Health Care Utilization .................................................................................. 19

Masculinity's positive impact on health ......................................................................... 21

Gender and Life Expectancy ............................................................................................ 21

Theoretical Framework ..................................................................................................... 24

Assessing Impact .............................................................................................................. 25

Hypotheses ....................................................................................................................... 25

Participants ....................................................................................................................... 25

Materials & Methods ....................................................................................................... 25
Design and Methodological Instrument ......................................................... 26

Results .............................................................................................................. 27

Discussion ....................................................................................................... 44

Limitations of Study Included ......................................................................... 47

Conclusion ....................................................................................................... 48

Appendix A ...................................................................................................... 51

References: ..................................................................................................... 63

Curriculum Vitae ............................................................................................. 68
**List of Tables**

TABLE 1: SELF-IDENTIFIED PARTICIPANT GENDER AND SEXUAL ORIENTATION. 28
TABLE 2: SELF-IDENTIFIED PARTICIPANT RACIAL AND ETHNIC IDENTITY. 29
TABLE 3: PARTICIPANT AGE CATEGORIES. 30
TABLE 4: PARTICIPANT EDUCATION. 31
TABLE 5: PARTICIPANT EDUCATION BY GENDER. 32
TABLE 6: INSURANCE CATEGORIES AND PARTICIPANT REGISTRATION WITHIN EACH CATEGORY. 33
TABLE 7: PARTICIPANT RESPONSE TO EXAGGERATED SELF-RELIANCE SUBSCALE OF THE MASCULINE BEHAVIOR SCALE. 34
TABLE 8: MASCULINE BEHAVIOR SCALE SCORE STATISTICS BY GENDER. 35
TABLE 9: GENDERED DIFFERENCE BETWEEN RESPONSES TO THE SATISFACTION WITH CARE QUESTIONNAIRE. 37
TABLE 10: MEDICATION HABITS OF PARTICIPANTS WITH A HYPERTENSION DIAGNOSIS BY GENDER. 39
TABLE 11: MEDICATION HABITS OF PARTICIPANTS WITH A DIABETES DIAGNOSIS BY GENDER. 39
TABLE 12: DEMOGRAPHIC DIFFERENCES BETWEEN THE INDIVIDUAL ITEMS USED TO CREATE THE HEALTH PROTECTIVE SCORE. 41
TABLE 13: HEALTH CARE NEED BY GENDER. TABLE 13 SHOWS THE REPORTED HEALTH CARE NEED OF PARTICIPANTS, ORGANIZED BY GENDER. 43
Introduction

Research Question

As the health of the general population improves and access to health care continues to increase, it is the purpose of this study to determine the impact of gender schema influences on developing health aversive attitudes and behaviors. This study also seeks to determine attitudes towards mental health treatment. The purpose of this study was to understand how gender schema, the process through which children learn expected behaviors, impact daily activities and health. By assessing the relationship between sex and gender, gender and patient satisfaction, gender and health protective behaviors and the impact education have on gender ideation the author hopes to clearly understand how gender schema impacts health. The role gender may play in health is important as an area of public health, because data indicates the health of American men is not well understood. Men are living shorter lives and, without understanding the impact of social paradigms on health, appropriate behavioral intervention cannot be designed.

Gender is more than the color of clothing or paint we use for a baby's room. Gender and gender schema send clear messages about acceptable roles, activities, professions and even emotions individuals can display. While gender is not something spoken of during daily interactions, gender plays a hidden but impactful role on men's lives. In the United States and other contemporary developed countries, men have higher mortality than women of all ages (Waldron, 1983). The diseases contributing to higher
mortality of men include: ischemic heart disease, lung cancer, myocardial infarctions, accidents, suicide, homicide, chronic liver disease and cirrhosis of the liver (Waldron, 1991). The striking fact about the disease causing men's higher mortality, is that many of these conditions are avoidable, manageable and brought on by risky behaviors. Gender differences in mortality are often caused by risky behaviors, such as smoking. Men smoke cigarettes at a higher rate than women and smoking is linked with ischemic heart disease, lung cancer and obstructive pulmonary disease (Waldron, 1991).

Previous research suggests that at times men have been almost twice as likely as women to not have visited a primary care physician in the past year and were less likely to have seen a dentist in the last year (Williams, 2003). Even men engaging in care were still actively avoiding health protective behavior, men have been found to be less likely to adhere to medical regimens than women (Rose, 2000).

Gendered cultural scripts have also contributed to different stress responses as well as gender differences in different types of illnesses; women in many societies have higher rates than men of internalizing disorders where feelings are focused on oneself such as depression and anxiety. Whereas men are more likely to have higher rates than women of externalizing disorders where emotions are expressed by outward behavior, such as alcohol and drug abuse, or antisocial behavior (Rosenfield, 1999). Turning to alcohol or drugs is a coping mechanism used to escape reality and stress often used to numb the pain of negative social and economic problems (Williams, 2003). Human and animal research has indicated that stress is a major factor both initiation and addition of substances such as alcohol and other drugs (Brady, 1999).
Substance use and addiction have implications in risky behavior and disease exposure as well. The marked effect illicit drug use has on health is related to the drugs themselves as well as exposure to hepatitis, HIV/AIDS, tuberculosis, motor vehicle accidents, falls and homicide (Williams, 2003). Masculinity’s impact on healthcare is not only seen in men’s behaviors, but also in practitioner’s reactions to men as patients. Health care providers spend less time with men when compared to women; provide fewer services, less information on health, less advice and are less likely to counsel a man on health behavior than a woman (Courtneay, 2000). Due to differences in health care provider attitude and behavior, men's lack of engagement in the medical system may be due to not only the patients’ view of masculine norms, but also that of the healthcare provider. For example, previous research has found that physicians were three times more likely to routinely provide instructions to age appropriate women on self-breast exam than to age appropriate men on testicular self-examination (Misener, 1995).

The underuse of medical and psychotherapeutic services are examples of reported health behaviors practiced by men that negatively impact their health (Cafri, 2004). Without adequately understanding why men are accessing healthcare at lower rates than females, appropriate intervention cannot be designed to influence men to use the health care system in a more beneficial manner. A variety of contextual factors may be associated with the reasons behind men’s resistance to seeking professional help (Mansfield, 2003). Client satisfaction, personality traits such as adherence to masculine norms and personal attitudes towards mental health care are all examples of factors impacting health behaviors that will be examined through the course of this study.
Risky behaviors such as increased smoking and limited help seeking behavior is associated with hegemonic masculinity that has serious implication for those who, in pursuit of the masculine ideal, will jeopardize their health (Connell, 1993). The call for a clearer understanding of the shorter life expectancy of men has been clear and has come from sources as large as the World Health Organization (WHO, 2000). By understanding attitudes and behaviors towards both behavioral and primary health care, not only can a clearer understanding of shortened male life spans be obtained, but thorough interventions can be designed. Currently, research design and conclusions are framed by the stereotypes of masculinity. Without dissecting facets of masculinity, an inappropriate understanding of impact on health will be obtained. This study will evaluate the exaggerated self-reliance and control subscale of the Masculine Behavior Scale (MBS).

The focus of this research will be on two core relationships: the relationship between masculinity (self-reliance and control) and either health seeking or proactive health behaviors as well as the relationship between masculinity and primary care satisfaction. By exploring the link between these behaviors and personality traits the hope is that effective public health intervention can be designed to educate both primary care workers and patients alike.

**Defining Terms**

For the purpose of this study the following terms may need clarification: masculinity, gender, gender schemata, health protective and help seeking. The term masculinity refers to the possession of the qualities traditionally associated with men.
(Wong, 2016). Gender refers to the attitudes, feelings, and behaviors that a given culture associates with a person's biological sex (APA, 2011). A schema can be helpful in processing information and a gender schema refers to the knowledge of what being female or male means and what behaviors, cognitions and emotions are associated with these genders (Eagly, 2004). Health protective behaviors include behaviors designed to prevent diseases or maintain health after it has become impaired (Kreitler, 1997). Help seeking behavior is a form of social behavior emitted to seek assistance from others (Cornally, 2011).

**Review of Literature**

Dominance, power, control, independent, athletic, tough—these are just a few words associated with masculinity (Ericson, 2014). But what is masculinity really? Masculinity is very dependent upon culture and is defined as having qualities appropriate to or usually associated with a man, by the Merriam-Webster dictionary. Masculine norms dictate behavior and describe societal beliefs, values, and expectations about what it means to be a “man” (Mahalik et al., 2003). In America, masculinity studies have grown as an offshoot of feminist theory and showcase the notion that gender is not inborn. But rather it is created through social interactions and gender is a performance, not a natural reaction. Through time, political, social and economic norms influence masculinity and masculine ideals. The masculine ideal varies extensively between racial and ethnic groups, region and age. As circumstances change over time, so too do gender roles. In the United States, gender role shifts have mirrored economic development and political strife. The industrial revolution lead to a largely male dominated work force, but
this changed during World War II. As the largely male labor force went off to war, they left behind open positions that were almost immediately filled by women. Government campaigns stretched the limits of gender definitions by portraying women’s employment as a patriotic duty (Tuttle, 2003). During this period, a working woman was seen as a patriotic woman. But, as the war reached an end, so too did the careers of many women. Cinema and entertainment from the 1950's and 1960's reflect efforts to push women back into home making. Hollywood movies of the 1950s and 1960s are filled with the tales of characters who, having experienced the passing allure of career and financial independence, discover true happiness in the voluntary surrender to marriage and family. (Fernandez-Kelly, 2008).

Masculinity is most recognizable through acts portraying characteristics of what is considered masculine; risk taking, exercising leadership, and participating in competition– especially those of skill or strength. Displays of masculinity may feel necessary as the language often used to talk about men reflects a transient state full of anxiety, as if manhood itself is in jeopardy. Any reaction of a man that is considered weak leads to questioned masculinity, men are told to "man up" in times of struggle and men are judged to be "man enough" for certain jobs or situations, thus equating masculinity with toughness, strength or bravery.

In contrast, women rarely come across similar lines of questioning. Womanhood is not questioned in employment, family matters or personal struggles (Vandello, 2013). Manhood as an insecure status has been studied. Findings suggest men's response when manhood is in peril is to engage in stereotypically masculine behaviors for example: hierarchy support, promoting homophobic beliefs, supporting aggression and selecting
physical tasks over intellectual tasks (Vandello, 2008). Aggressive actions and physical
tasks are both activities that are health aversive. Aggressive behavior appears to impact
men and women differently. Data suggests men in the United States are predominate in
national crime statistics as both perpetrators and victims of crime in almost every domain
of violence and outnumber female murderers at a ratio of 10:1 (Federal Bureau of
Investigation Uniform Crime Reports, 2009). Also, evidence suggests that men and
women respond differentially to various types of provocation. These different responses
may explain why men represent a larger proportion of violent crime victims and
perpetrators (Bettencourt & Miller 1996).

Additional support comes from the Gender Role Conflict Scale (GCRS) and
studies thereof. The GCRS was developed to examine the degree to which internalization
of traditional gender roles is likely to cause stress (Smiler & Epstein, 2010). Research
suggests masculinity is significantly related to hostility (Hayes & Mahalik 2000), and is
also positively associated with dangerous interpersonal outcomes such as sexual and
interpersonal violence (O’Neil 2008). Additionally, the stress men experience in
relationship to their efforts to adhere to masculine norms has been associated with
amplified state anger, negative intent attributions, and verbal hostility following exposure
to intimate conflict stories involving masculine gender-relevant contexts (Franchina et al.
2001; Moore & Stuart 2004).

While assorted masculine ideologies exist, a common collection of expectations
and standards connected to the traditional male role in the Western world exists (Pleck,
1995). Often called traditional masculinity ideology or hegemonic masculinity, this ideal
echoes the notion of the dominant male role. Four norms of traditional masculinity were
identified in the late 1970's: (1) “no sissy stuff” (men should avoid feminine things), (2) “the big wheel” (that men should strive for success and achievement), (3) “the sturdy oak” (that men should not show weakness), and (4) “give ’em hell” (that men should seek adventure, even if violence is necessary) (David & Brannon, 1976).

To better understand masculinity in recent history, manhood and masculinity of the last 250 years is divided into three distinctive phases: communal manhood, self-made manhood and passionate manhood (Rotundo, 1993). Communal manhood, such as that seen in Colonial New England, defines masculinity by a man's usefulness to his community. The growth of a middle class and a market economy cast a shadow on communal masculinity and soon self-made manhood eclipsed communal masculinity as the ideal. Self-made manhood identified social status from a man's achievements more so than any social standing achieved through birth alone. By idealizing a self-made man, rivalry, aggression and opportunistic attitudes flourished. Self-made manhood was centered on displaying passion rather than moderating passions and having a more temperate demeanor.

Passionate manhood began to appear in the late 19th century. The shift towards viewing combative behavior as virtuous began. Competitive, tough behavior was praise worthy while tender male behavior would be ridiculed. Previously male sexual desire was considered worrisome, but through passionate manhood sexual desire became a sign of a strong, virile male.

When contemplating manhood and what it means to be a man in present day American culture, a caricature of masculinity comes to mind. Movies, television shows and commercial advertisement satirize male personality and depict hyper–masculine
stereotypes of rugged, emotionless men whose greatest fear is appearing feminine. Fear of appearing feminine leads to aggressive behavior, help avoidance and health aversive behaviors. Health care avoidance and aversion to help seeking behaviors are detrimental to physical and emotional well-being. Studies indicate that men are less likely to seek psychological help (Mahalik, et al., 2003) suggesting the impact of “manning up” could be linked to avoidance of mental health care. Phrasing like "man up" used as advice when faced with trouble serve to remind men that their manhood is in constant jeopardy and work must be done to manage that status.

**Masculinity, gender and health**

Many factors can contribute to the health risks men experience, adverse working conditions, gendered coping mechanisms to stress, health-damaging behaviors such as smoking or even an aversion to health- protective behaviors such as dieting and exercising (Williams, 2003). Engagement in the health risking behavior men experience is associated with gender and societal expectations of gender. Gender, the complex system of social relations and practices attached to biological sex, is one of the most important socio-cultural factors influencing both health and health related behavior (Evans, 2011).

While biological differences may be a strong argument for the difference in life-spans of men and women, previous research suggests the low socioeconomic status is one of the strongest known determinants of variations in health, making low socioeconomically standing men some of the most vulnerable individuals (Williams, 1995).
Gender differences in life span suggest men live shorter lives than women in most countries. This shorter life span can either be explained by biological or sociological processes. Studies investigating possible differences in lifespan are necessary in order to design future interventions. The shortened life expectancy of the American man has long been accepted in our culture, but looking at life expectancy rates in black and white can be quite sobering as health disparities incurred by American men represent the dangerous impact traditional masculinity has on our nation. In 1980, life expectancy for men was 70 years and for women it was 77.4 years. In 2003, life expectancy went up to 74.8 years for men and 80.1 years for women (Pinkhasov, 2010). In this thirteen-year gap, the difference between life expectancy for males and females went from a 7.4-year gap to a 6.3-year gap on average. While this change in life average life expectancy may be indicative of the hard work of those involved in the medical industry more research is needed to understand the differences in health between men and women. Without exploring the root cause of men’s health, gaps will exist within current knowledge. These gaps in knowledge can cause inefficient and inappropriate intervention techniques as well as serve to increase the health gap between men and women.

Health is impacted by a variety of factors such as socioeconomic status, genetics, access to care and ethnicity, but these factors alone cannot explain gendered differences in health. Health aversive behaviors (Courtenay, 2000). Behaviors such as smoking, excessive alcohol consumption, violent sports, driving with excessive speed, high fat diets and avoidance of health care are examples of detrimental behaviors almost expected of men.
Even though the dangers of smoking cigarettes are well known and even printed on the package, men are almost six times as likely to die of lung cancer than women, five times as likely to die of other broncho-pulmonic diseases, three times as likely to die in motor vehicle accidents, nearly three times as likely to commit suicide and two times as likely to die of heart disease and cirrhosis of the liver (Sabo & Gordon, 1995). The majority of the leading causes of death among men are the result of men's behaviors—gendered behaviors that leave men more vulnerable to certain illnesses. Masculinity is a significant risk factor impacting with men's health.

Screening and preventative services are so important that public media campaigns highlighting the need for screenings (such as colorectal screenings) have made their way onto billboards. Even though the importance of screening services is well documented (Soetikno, 2008), more than half (55%) of U.S. men have not seen their primary care doctor in the past year, and men make half as many doctor visits for preventative care as women (Heidelbaugh, 2012). A retrospective cross sectional study on the use of preventative services, such as cholesterol screening and routine dental exams, found disparities still exist in certain preventative behaviors, with women more likely to be screened than men (Vaidya, et al., 2012). Even less invasive preventative services are accessed by men at much lower rates, services such as routine dental checkups, annual flu shots and even blood pressure screenings that may provide important health information were also found to be underutilized by male participants (Vaidya, 2012). The lower rates at which men access primary health care is well documented; what is not well documented are the reasons behind avoidance of care.
The mortality/morbidity paradox in which men live shorter lives than women, even though women represent higher rates of morbidity in both physical and mental illnesses, represents a public health issue on the verge of crisis (Verbrugges, 1985). Understanding the reasons why men’s lives are shorter, on average, is a key component of designing effective intervention for prolonging the lives of men. In the United States men suffer more severely from chronic conditions and die almost seven years younger than women (Courtenay, 2000). Previous research investigating disparities in health care have focused on race, class and gender, however these dynamics cannot explain gender differences in wellbeing and longevity. Health behaviors can explain the differences in health between genders; and health behaviors have been noted as the most important of factors influencing health and the most effective way to prevent disease (Woolf, 1996).

**Masculinity and Mental Health**

Attitudes and behaviors towards mental health services seem to mirror the behaviors associated with preventative health service access. Results from previous studies suggest that negative sentiments regarding psychological openness could possibly be a contributing factor to men’s underutilization of mental health services (Mackenzie, 2006). Education to improve men’s help seeking attitudes and behaviors regarding mental health service would benefit men of all ages and could possibly prevent suicidal behavior, as men are more likely to commit suicide and to be diagnosed with antisocial disorders than women (Moffit, 2001).

Findings suggest the need for education to improve men’s help-seeking attitudes and to enhance older adults’ willingness to seek specialty mental health services
Comorbid mental and primary health diagnoses increased mortality, inability to access care, inadequate care and poorer health outcomes (Matheson, 2014). Differential exposure to stressors and different responses to them also contribute to the health challenges that men face (Williams, 2003). Stress has been demonstrated to be a negative consequence for a broad range of health outcomes, including mental health, susceptibility to infectious disease and the risk of chronic conditions such as hypertension and diabetes (Williams, 2005). Stress may explain the differences in mortality men experience with both hypertension and diabetes. Stress is a natural response to the environment, but environments can be unnaturally stressful due to social design.

**Masculinity and Work**

In the time following sex socialization, men and women are seen to have differing strengths. These differences in preference and ability serve as a roadmap leading to career differences for men and women (Hancock, 2012). Not all barriers to care are due to personal choice for men, sometimes political factors may come into play unexpectedly. While many accepted the notion that career success is at the core of many men’s well-being, a career can limit access to health care as can state policy (Hancock, 2012). Certain industries such as manufacturing are associated with higher rates of insurance coverage when compared to service or agriculture, but are also associated with long shifts and dangerous work locations (James, 2012). The expected shift length and distance to care can both represent substantial barriers for men seeking care. Ability to pay out of pocket expense, Medicaid eligibility, and proximity to medical facilities are all environmental factors that may combine to limit access to care. State policy can limit
access to care through the state economy and the industry promoted within the state (James, 2012). For instance, if independent farming is the dominant source of income in a certain area, clients are less likely to have access to health insurance while a neighboring town may rely on the auto industry, an industry more likely to provide health insurance and to limit out of pocket expense. At first glance the reason behind underutilization may not be obvious, but further investigation into area sponsored industry may provide more clues as to why services are not accessed.

Eliminating health disparities has many advantages for the United States as well as the individuals involved in the health care system. Not only would the nation be healthier overall, but this would foster an environment that produces a stronger labor force which in turn would serve as a breeding ground for innovation and enterprise and would also lead to reduced healthcare spending. Masculinities and what it means to be a man has often been supported by employment. Men and women have historically occupied different career fields, but even after the women's movement and great cultural steps towards gender equality, sex segregation in paid work persists. The path towards career selection begins early, as children play and learn from the world around them. Boys are given trucks, guns or sporting equipment while girls are given dolls, cooking equipment and stuffed animals. Cultural beliefs about gender are believed to bias individuals' perceptions of their competence at various career relevant tasks (Correll, 2001). Career gender bias refers to the tendency for men and women to resist work in career fields that tend to be dominated by individuals of a specific gender (construction work, nursing, elementary education, child care, police, fire/EMS and factory work, to name a few).
Sex segregation appears early on the path to many careers, over 30% of females would have to change college majors in order for distribution to the same as their male counterparts (Jacobs, 1995). This represents a voluntary career relevant decision that will carry pupils to a substantially different occupational direction. Since most students grow up attending coeducational high schools, grade schools and primary schools with balanced sex ratios. Gender differences in career choice are not primarily due to differences in type of high school attended by students (Correll, 2001). Sociologists have realized that gender is a multilevel system that consists of roles and identities beyond the singular personal level that include ways of behaving in relationship interactions and cultural beliefs at the macro level (Ridgeway, 1997). Cultural beliefs surrounding gender are the part of gender stereotypes that contain specific expectations for competence and expectations for competence provide the cultural schema for interpreting the social world.

Research on male teachers has found that they feel both privileged and disadvantaged in their role. They have more job prospects because they are valuable and rare, but they are also often isolated and excluded and often described as feeling "constantly on guard" (Jones, 2007). Many felt that male teachers were often not "real men" or were engaging in "woman's work.". With few role models, males can be displaced. When a man finds he feels that his masculinity is threatened in one way, he may seek behaviors that will confirm his masculinity, and one well-documented way to confirm masculinity is risk taking.
Masculinity and Risky Behavior

The mortality rates from accidents and suicide speak to engagement in risk taking behavior as well as unrecognized mental health needs. Substantial evidence exists supporting the reluctance of men to seek professional psychological help (Cusack, Deane, Wilson, & Ciarrochi, 2006; Good & Wood, 1995; Hammer & Vogel, 2010; Johnson, Oliffe, Kelly, Galdas, & Ogrodniczuk, 2012). Men's help seeking barriers have been identified: embarrassment, anxiety surrounding mental health services and disinclination to express emotions (Yousaf, Grunfeld, & Hunter, 2013). Each of the barriers listed aligns with traditional hegemonic masculine norms such as expressing invulnerability, being independent, being resilient, suppressing emotion and being strong. Cultural scripts that contribute to gender differences also contribute to differences in help seeking behaviors. Women may employ more effective coping strategies for interpersonal as well as career related stress. Women are more likely to seek social support and when compared with men are more likely to receive support and provide support (Rosenfield, 1999).

Smoking and binge drinking present examples of behaviors that are detrimental to health and avoidable, but notions of masculinity may urge someone to partake in the activities. During 2006-2008 one in four men between the ages of 18-24 was a smoker or had at least a single episode of binge drinking during the past 30 days (National Institute of Alcohol Abuse and Alcoholism, 2004). Binge drinking is defined as consumption 5 or more drinks for a man and 4 or more for a woman in about an hour. Binge drinking is
associated with risky behavior such as aggressive behavior and unsafe sex practices (Banta, 2014).

Binge drinking and drinking games often go hand in hand at college parties. Drinking games are very risky social drinking activities that are designed with rules that assist in reaching intoxication quickly while engaging in a cognitive or motor task (Zamboanga et al., 2014). Drinking games are dangerous not only because of the rules in place, but also the enforcers of said rules often target specific players for intoxication (Borsari, 2004; Zamboanga et al., 2015). Drinking games are a male dominated activity (Pedersen & LaBrie, 2008). Observation of masculine norms has been suggested as a gender-relevant factor explaining why some men participate in drinking games as an adherence to masculine norms as well as the borderline bullying behavior seen in drinking games (Zamboanga et al., 2014).

A growing body of evidence supports the association between masculine norms and alcohol related problems such as heavy alcohol use. Traits such as self-reliance, risk-taking and identifying as a “playboy” have been found to heighten the risk of problematic alcohol use (Iwamoto et al., 2011).

**Male Avoidance of Care**

Risky avoidance of care can be as detrimental as risky behaviors themselves. Substantial evidence exists supporting the reluctance of men to seek professional psychological help (Cusack, Deane, Wilson, & Ciarrochi, 2006; Good & Wood, 1995; Hammer & Vogel, 2010; Johnson, Oliffe, Kelly, Galdas, & Ogrodniczuk, 2012). Men's help seeking barriers have been identified: embarrassment, anxiety surrounding mental
health services and disinclination to express emotions (Yousaf, Grunfeld, & Hunter, 2013). Each of the barriers listed align with traditional hegemonic masculine norms such as invulnerability.

Some have argued that endorsement of traditional hegemonic masculinity norms (e.g., being strong and invulnerable, not expressing emotions, being resilient, and being independent) is a key influence upon psychological help-seeking among men (Addis & Mahalik, 2003; McCusker & Galupo, 2011; Noone & Stephens, 2008; O’Brien, Hunt, & Hart, 2005). For example, embarrassment and anxiety about seeking help might result when men believe that they should tolerate the pain or solve the problem by themselves because they are men (Jeffries & Grogan, 2012). The cognitive conflict and the negative emotions that result from defying, or wanting to defy, these masculine norms (e.g., by seeking help) has been termed gender role conflict. Studies suggest that this conflict is associated with low help-seeking, possibly because men who experience a gender role conflict usually subscribe highly to traditional male norms, while also appreciating the value of seeking help (Blazina & Watkins, 1996; Good, Dell, & Mintz, 1989; Good & Wood, 1995).

The tendency of men to suppress need expression and to minimize pain may contribute to lower engagement in preventative health care services (Courtenay, 2000). An ounce of prevention is worth a pound of cure. This saying is applicable to many facets of life, but especially pertinent to medical care. Preventive health services are services used to prevent disease through counseling on behaviors such as exercise and diet or to catch a disease before there is a chance for progression. The focus of prevention is to
avoid treating a disease or illness by taking steps such as abstaining from alcohol or drugs and engaging in health practices to avoid disease altogether

**Gender and Health Care Utilization**

In the United States, genders use health care differently. While men generally use health care at lower rates than females, they are also less likely to seek preventative care (James, 2012). Findings suggest the cost for primary care and diagnostic visits are more expensive for females and females have lower mean incomes; even though these factors could prevent females from accessing care men are still found to access care in terms of diagnostic visits at significantly lower rates (Bertakis, 2000). While current research offers an understanding of how much money women will spend on health care, what is not extensively researched is why? What are the factors push females to access a system that charges them and why are men not accessing this system? Why do men avoid routine care while females readily accept the care? Like other social actions, the suggestion is that health related activities are a means of demonstrating masculinities. Does gender socialization have an impact on attitudes towards health care as well as behaviors in health care utilization? The elevated cost for women’s health care along with men’s lower utilization rate should fuel research to adequately understand what is influencing accessing care for American men. The insufficient evidence explaining men’s attitudes towards accessing care may be the missing link in understanding gender disparities in health care. Do men simply dislike the health care system or are deeper factors of masculinity at play in their underutilization of care?
A widely accepted notion explaining why females interact with the health care system is the unique role females play in child bearing along with the traditional role of child rearing. In order to combat infant mortality women typically visit a physician bi-weekly during pregnancy and during these visits women are likely to receive counseling on proper diet, develop a rapport with health care staff and come into contact with more information on the accessibility and need for preventive services.

Current research suggests men may also access health care at lower rates because men have lower rates of chronic conditions in comparison to females (Rieker, 2005). This notion could explain the lower rates of regular appointments for men but to accept the notion of lower prevalence rates of chronic conditions for men as fact when men are not seeking health care in order to gain a diagnosis is flawed. Constructs related to traditional masculinity and femininity are seen in everyday life and are quietly at work within health seeking behaviors and can be recognized in activities by which we construct our understanding of self and gender (Evans, 2011). Health coping behaviors associated with femininity such as help seeking stand in strict contrast to the risky behaviors associated with masculinity such as smoking (Evans, 2011). The practice of engaging in high risk behaviors such as avoiding preventative care, overindulgence of alcohol, speeding in a vehicle and delay of treatment can be seen as applications of masculinity which combine to contribute to poorer health outcomes for men (Gibson, 2000).
Masculinity's positive impact on health

While it may seem that masculinity and male socialization is hazardous to anyone’s health there may be some redeeming qualities that will aid in implementing new health care initiatives. Certain aspects of masculinity could enforce proactive health behaviors; men high in traits typically considered masculine such as responsibility and self-reliance are more apt to avoid risky behavior and visit their physician (Levant, 2011). Appropriate change in personal health behavior at the individual level can reduce the rates of disease as well as medical expenditure within this country. Promoting certain traits of masculinity such as self-reliance while minimizing the stigma of help-seeking could be strong components of a health campaign in order to encourage men to access care. Before the self-reliance traits are promoted though, thorough investigation into the motivations behind accessing health care need to be considered. Without understanding what services are not being appreciated the act of promotion may not be an effective approach.

Gender and Life Expectancy

The established disparity in life expectancy between American men and women indicates an imbalance in life style, healthcare and health in the United States. The factors that impact a man’s life span can be social or biological. Men are overrepresented in an array of social conditions that limit access to care such as employment, substance abuse, institutionalization and incarceration (Williams, 2003). In
American culture males are socialized to be tough, to suppress vulnerability and to be dominant (Williams, 2003). Men will often face the risk of going undiagnosed instead of dealing with the reality of emasculating treatment for a disease (Courtenay, 2000). The connection between masculinity and health becomes more apparent when the disease is one that is considered feminine. For example, breast cancer patients are not always female. Males represent 1% of the breast cancer cases in the United States, but will die due to breast cancer at twice the rate of females (Naymark, 2006). The socialization of masculinity could be the factor allowing adverse health behaviors to grow. Health behaviors are actions that are used in daily interaction in the social structuring of gender and power (Courtenay, 2000).

The American population is incredibly diverse, and this is both a great asset and a great challenge in reducing disparity in health care within the nation. Causes of incongruent health outcomes for men and women can be socially based, Biologically based or linked to public policy. Health behaviors of men cannot be fully understood without taking into account their gender roles in American society. The contrast between ever evolving notions of masculinity and social expectations as well as the rapidly evolving skill set necessary for economic success may contribute to the kind of stress and poor coping skills such as over indulgence in food, alcohol or smoking (Courtenay, 2000).

In most areas of the world, life expectancy is lower for men than women (Pinkashov, 2010). While life expectancy for men has found to be lower, research has routinely shown a higher morbidity in women than men (Waldron, 1983). The lower life expectancy of men and the greater morbidity of women extends beyond the notions of
either social or biological disadvantage; gaps remain in understanding the antecedents of such differences and the issues this paradox raises regarding the connections between social and biological processes (Rieker, & Bird, 2005). Health research suggests men with similar social disadvantages as women experience poorer health outcomes in relation to mortality, disability, chronic illness and injury rates (Schofield, et al. 2000).

Both biological and social processes underlie the perplexing pattern of difference in morbidity and mortality, but currently what is missing is a clear understanding of how the social and biological factors combine to produce these paradoxical differences in health for men and women (Rieker & Bird, 2005).

Currently, there is a deficit in understanding of men's health and the social factors that impact men’s health. Mortality for men is higher in 12 of the 15 leading causes of death (Pinkashov, 2010) The 15 leading causes of death are: heart disease, cancer, cerebrovascular diseases, chronic lower respiratory diseases, accidents, diabetes mellitus, Alzheimer's disease, influenza and pneumonia, kidney disease, septicemia, suicide, chronic liver disease and cirrhosis, hypertension, Parkinson's disease and homicide.

Men represent larger mortality rates in causes of death from diseases that are manageable or avoidable such as: diabetes mellitus and hypertension. Beliefs about masculinity can lead men to either engage in health risking behavior or avoid health protective behaviors. Women are more likely to engage in health protective behaviors such as diet management and preventative care, while men have been found to engage in 30 behaviors that have been shown to increase risk of injury, morbidity and mortality (Courtenay, 2000). For example, men are more likely to smoke cigarettes daily and engage in problem drinking behavior (Health, United States, 2011). Masculinity may
provide some health protective behaviors. For example, men are more likely to engage in physical activity during leisure time and less likely to be overweight when compared with women (Williams, 2003). Engagement in risky behavior, avoiding health promoting activities and believing that high risk behaviors will not impair performance (for instance drinking alcohol will not impair *my* driving skills) demonstrate masculine norms of the larger culture, and demonstrate ways in which men confirm and reinforce their masculinity (Health, United States, 2011).

**Theoretical Framework**

Modern definitions of masculinity are focused around traits associated with maleness: ruggedness, strength, muscularity and a driven nature. How could a theory on masculinity help us understand men’s response to illness?

Gender Schema theory contains aspects of cognitive developmental and social learning theories of sex typing (Bem, 1983). Gender schema theory asserts that through observations, the child learns his or her society’s cultural definition of gender. A schema serves as a cognitive structure that helps to organize an individual's perception, attitude and behaviors.

The Masculine Behavior Scale was developed as an objective self-report instrument that measures four stereotypically masculine tendencies; restrictive emotionality, inhibited affection, success dedication and exaggerated self-reliance. The Masculine Behavior Scale provides a measurable impact of masculine behaviors and beliefs to compare with healthcare attitudes, behaviors and practices.
Assessing Impact

Hypotheses

h1- Men will exhibit higher scores on the Masculine Behavior Scale than women
h2- Higher scores on the MBS will correlate with less patient satisfaction
h3- Higher scores on the MBS will be inversely related to practice of health protective behaviors
h4- Higher education will mitigate the impact of gendered expectations and result in lower MBS scores for men with college degrees.

Participants

Participants in this study included 229 Wright State University students, staff and faculty. Participants included 80 men and 149 women between the ages of 18 and 80. All participants in this study were volunteers. Participants were invited to participate via e-mail link sent through a university maintained list-serve.

Materials & Methods

Informed consent was obtained via web-form and contained information about purpose of study, procedures, benefits and risks of participating, an explanation how to acquire results of the research, voluntary participation, and contact information of the researchers. Additional materials included a self-administered survey (see Appendix A). The survey included 27 questions in total. The survey included 9 demographic questions
that included health insurance coverage and relationship to the university. As well as demographic information, the survey included the exaggerated self-reliance and control sub-scales found within the Masculine Behavior Scale (Snell, 1989). Exaggerated self-reliance and control refer to behavior characterized by inflated concern with personal control. The review process for the Wright State University Institutional Review Board was completed prior to participant recruitment.

**Design and Methodological Instrument**

The research design of this study was non-experimental and correlational as it studied the relationship between agreement with items on the Masculine Behavior Scale and health protective or health risking behaviors. The variables in this study were agreement with Masculine Behavior Scale, satisfaction with health care provider, health protective behaviors and health risking behaviors.

The Masculine Behavior Scale (MBS) is an objective self-report instrument designed to measure four behavioral tendencies stereotypically imputed more to males versus females: restrictive emotionality, inhibited affection, success dedication, and exaggerated self-reliance (Snell, 1989). For the purpose of the study, the subscale measuring exaggerated self-reliance was used.

Patient satisfaction was measured using an abridged version, containing 6 items, of the Patient Satisfaction Questionnaire (PSQ-III) from RAND Health (Rand, 1978). PSQ-III is a 50-item survey that taps global satisfaction with medical care as well as
satisfaction with six aspects of care: technical quality, interpersonal manner, communication, financial aspects of care, time spent with doctor, and accessibility of care. In addition to scales measuring attitudes, the survey also examines health behaviors and knowledge of diagnosis and appropriate health care behaviors such as prescription compliance. Due to the smaller sample size and nature of the responses to this study the alpha level was set at .05. To review the questionnaire in full, with skip logic, please refer to Appendix A.

**Results**

The purpose of this study was to examine the impact of masculinities towards primary and mental health care. It further examined whether demographic variables such as age, patient satisfaction, level of education, race and ethnicity affect these attitudes.

Participants in this study included 229 Wright State University students, staff and faculty. Participants included 80 men and 149 women between the ages of 18 and 80. Less than 10% of participants identified as members of the LGBTQ community. For a full depiction of the gender and sexual identity of participants, please refer to Table 1.
<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>80</td>
<td>34.90%</td>
</tr>
<tr>
<td>Female</td>
<td>149</td>
<td>65.10%</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>229</td>
<td></td>
</tr>
<tr>
<td>Sexual Orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LGBTQ</td>
<td>20</td>
<td>8.80%</td>
</tr>
<tr>
<td>Non-LGBTQ</td>
<td>205</td>
<td>90.70%</td>
</tr>
<tr>
<td>Refuse to Answer</td>
<td>1</td>
<td>0.40%</td>
</tr>
</tbody>
</table>

*Table 1: Self-identified participant gender and sexual orientation.*

The majority of participants identified racially as White or Caucasian (86.4%), while less than 10% of participants identified as Black or African American (7%). Additionally, nearly 99% identified as non-Hispanic. Of those who did identify as Hispanic or Latino, Puerto Rican, Mexican and Other Hispanic/Latino populations were equally represented in this sample. For a full breakdown of participant race and ethnicity, please refer to Table 2.
<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian/ Native American</td>
<td>4</td>
<td>1.80%</td>
</tr>
<tr>
<td>Asian</td>
<td>1</td>
<td>0.40%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>16</td>
<td>7.00%</td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>19</td>
<td>86.40%</td>
</tr>
<tr>
<td>Multi-racial</td>
<td>6</td>
<td>2.60%</td>
</tr>
<tr>
<td>I prefer not to answer</td>
<td>4</td>
<td>1.80%</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>22</td>
<td>9</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Hispanic/Latino</td>
<td>22</td>
<td>98.70%</td>
</tr>
<tr>
<td>Puerto Rican</td>
<td>1</td>
<td>0.40%</td>
</tr>
<tr>
<td>Mexican, Mexican American or Chicano</td>
<td>1</td>
<td>0.40%</td>
</tr>
<tr>
<td>Other Hispanic/Latino</td>
<td>1</td>
<td>0.40%</td>
</tr>
<tr>
<td>Missing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>22</td>
<td>9</td>
</tr>
</tbody>
</table>

*Table 2: Self-identified participant racial and ethnic identity.*

The average age for participants was 38 years old. The age range for participants was 62 years, between 18 and 80 years old. To better understand the age distribution of
patients, please refer to Table 3. Table 3 represents the age of participants broken down into 7 categories: 18-20, 21-30, 31-40, 41-50, 51-60, 61-70 and participants older than 70 years old. The largest age group represented by participants was the 31-40 age group, with 31.5% of participants identified in this age group.

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-20</td>
<td>16</td>
<td>7.40%</td>
</tr>
<tr>
<td>21-30</td>
<td>68</td>
<td>31.50%</td>
</tr>
<tr>
<td>31-40</td>
<td>50</td>
<td>23.10%</td>
</tr>
<tr>
<td>41-50</td>
<td>28</td>
<td>13.00%</td>
</tr>
<tr>
<td>51-60</td>
<td>35</td>
<td>16.20%</td>
</tr>
<tr>
<td>61-70</td>
<td>16</td>
<td>7.40%</td>
</tr>
<tr>
<td>71+</td>
<td>3</td>
<td>1.40%</td>
</tr>
<tr>
<td>Missing</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>229</td>
<td></td>
</tr>
</tbody>
</table>

*Table 3: Participant age categories.*

The majority of participants had at a minimum of a bachelor’s degree (68.9%), less than 10% of participants (9.2%) had an associate's degree while a minority had a High School Diploma, attended a trade program or had a GED (21.9%). For a review of the education level of all participants, please refer to Table 4.
<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Diploma</td>
<td>50</td>
<td>21.90%</td>
</tr>
<tr>
<td>Associates Degree/Trade</td>
<td>21</td>
<td>9.20%</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>47</td>
<td>20.60%</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>66</td>
<td>29.00%</td>
</tr>
<tr>
<td>MD/PhD</td>
<td>44</td>
<td>19.30%</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>229</td>
<td></td>
</tr>
</tbody>
</table>

*Table 4: Participant education.*

Education attainment appears to be similar between genders until the doctoral level. Men participating in this survey reported having an MD or PhD more than twice as often as women participating in this survey. For a full list identifying participant education by gender, please refer to Table 5.
Table 5: Table 5 Participant education by gender.

Table: Level of Education

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>n</th>
<th>Men n (%)</th>
<th>Women n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Diploma</td>
<td>50</td>
<td>16 (20.3%)</td>
<td>34 (22.8%)</td>
</tr>
<tr>
<td>Associates Degree/Trade</td>
<td>21</td>
<td>6 (7.6%)</td>
<td>15 (10.1%)</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>47</td>
<td>13 (16.5%)</td>
<td>34 (22.8%)</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>66</td>
<td>19 (24.0%)</td>
<td>47 (31.5%)</td>
</tr>
<tr>
<td>MD/PhD</td>
<td>44</td>
<td>25 (31.6%)</td>
<td>19 (12.8%)</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>229</td>
<td>80</td>
<td>149</td>
</tr>
</tbody>
</table>

Of participants in this survey nearly everyone (97.4%) had some form of health insurance, while a small minority either did not have health insurance (2.2%) or preferred not to answer this question (0.4%). Of those with health insurance, the majority (89.3%) received their health insurance through their own or a family member’s employer. For a full display of the origin of participant insurance, please refer to Table 6.
<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Insurance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employer Insurance</td>
<td>130</td>
<td>58.0%</td>
</tr>
<tr>
<td>Family Member's Employer Insurance</td>
<td>63</td>
<td>28.2%</td>
</tr>
<tr>
<td>Military</td>
<td>7</td>
<td>3.1%</td>
</tr>
<tr>
<td>Medicaid or Medicare</td>
<td>11</td>
<td>4.9%</td>
</tr>
<tr>
<td>Other</td>
<td>13</td>
<td>5.8%</td>
</tr>
<tr>
<td>Missing</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>229</td>
<td></td>
</tr>
</tbody>
</table>

**Table 6: Table 6 Insurance categories and participant registration within each category.**

The exaggerated self-reliance subscale of the Masculine Behavior Scale provides a measurable reaction to this trait associated with masculine behaviors. The scale consists of 5 items; a listing of which can be found in Table 7, as well as the raw data associated with all participant’s reactions to scale items. Overall, the average score for all participants was 1.09. The maximum score possible on the exaggerated self-reliance subscale is 10 and -10 is the minimum.
<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Agree n (%)</th>
<th>Disagree n (%)</th>
<th>Agree n (%)</th>
<th>Strongly Agree n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I try to be in control of everything in my life</td>
<td>5 (2.3%)</td>
<td>32 (14.5%)</td>
<td>141 (63.8%)</td>
<td>43 (19.4%)</td>
</tr>
<tr>
<td>I make sure that &quot;I call the shots&quot; in my life</td>
<td>5 (2.3%)</td>
<td>42 (18.9%)</td>
<td>150 (67.5%)</td>
<td>25 (11.3%)</td>
</tr>
<tr>
<td>I don't take orders or advice from anybody</td>
<td>70 (31.5%)</td>
<td>138 (62.2%)</td>
<td>12 (5.4%)</td>
<td>2 (0.9%)</td>
</tr>
<tr>
<td>I don't let others tell me what to do with my life</td>
<td>14 (6.3%)</td>
<td>89 (40.1%)</td>
<td>102 (46.0%)</td>
<td>17 (7.6%)</td>
</tr>
<tr>
<td>I don't allow others to have control over my life</td>
<td>8 (3.6%)</td>
<td>44 (19.9%)</td>
<td>133 (60.2%)</td>
<td>36 (16.3%)</td>
</tr>
</tbody>
</table>

Table 7: Participant response to exaggerated self-reliance subscale of the Masculine Behavior Scale.

The central tendency of these data were analyzed in order to test hypothesis 1;

*Men will exhibit higher scores on the Masculine Behavior Scale.* This hypothesis was not supported in this data set. On average, men scored lower ($m = 0.58$) on the MBS when compared with women participating in the survey ($m = 1.38$) showing that men participating in this study did not agree with the items on the exaggerated self-reliance and control subscale of the MBS as much as women participating in the survey, results can be seen in Table 8. A Wilcoxon Rank Sum Test indicated that MBS scores achieved by men participated in the survey were nearly statistically significantly lower than that of women participating in the survey ($z = 1.878$, $p = 0.060$).
<table>
<thead>
<tr>
<th>Item</th>
<th>Women</th>
<th>Men</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean MBS Score</td>
<td>1.38</td>
<td>0.58</td>
<td>1.09</td>
</tr>
<tr>
<td>Maximum Score</td>
<td>10.0</td>
<td>6.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Minimum Score</td>
<td>-8.0</td>
<td>-9.0</td>
<td>-9.0</td>
</tr>
<tr>
<td>Score Range</td>
<td>18</td>
<td>15</td>
<td>18</td>
</tr>
</tbody>
</table>

Table 8: Masculine Behavior Scale score statistics by gender.

Hypothesis 2 stated; *Higher scores on the MBS will relate with a poorer experience with their physician as indicated by their patient satisfaction score.* A Wilcoxon Rank Sum Test indicated no statistically significant difference between men ranking highly on the MBS and men who did ranked low on the MBS. In fact, men who scored higher on the MBS on average reported a more satisfying recent appointment with their physician (*z* = -1.074, *p* = 0.283). To evaluate the relationship between higher score on the MBS and patient satisfaction, a Wilcoxon Rank Sum Test was run and again found no statistically significant difference in patient experience for those in greater agreement with the MBS (*z* = -1.331, *p* = 0.183).

Overall, there were limited differences between responses about patient satisfaction. Interestingly, almost half of the men indicating they had visited a primary care provider in the last year selected “not applicable” when asked if they would return to this provider for future needs. Without asking what their particular visit was for, reasons for not returning to this physician are purely speculative. But, possible explanations could include a trauma related visit, or a follow up with a specialist was required. More men reported a return visit as “not applicable” to their visit then women. This indicated a
possible gendered difference in return visits. For more information about items on this scale, please refer to Table 9.
<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Not Applicable</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.) The provider gave me an explanation of what was happening during the examination</td>
<td>F 1 (0.8%)</td>
<td>M 0</td>
<td>F 4 (3.3%)</td>
<td>M 4</td>
<td>F 6 (4.9%)</td>
</tr>
<tr>
<td>2.) I felt the provider criticized me for not taking care of myself</td>
<td>F 55 (45.1%)</td>
<td>M 29</td>
<td>F 49 (40.2%)</td>
<td>M 26</td>
<td>F 3 (2.5%)</td>
</tr>
<tr>
<td>3.) I would return to this provider in the future for health care needs</td>
<td>F 2 (1.6%)</td>
<td>M 3</td>
<td>F 1 (0.8%)</td>
<td>M 1</td>
<td>F 1 (0.8%)</td>
</tr>
<tr>
<td>4.) The provider made me feel as though I could talk about any kind of problem I don’t let others tell me what to do with my life.</td>
<td>F 3 (2.5%)</td>
<td>M 0</td>
<td>F 10 (8.2%)</td>
<td>M 6</td>
<td>F 5 (4.1%)</td>
</tr>
<tr>
<td>5.) The provider offered explanations in language I could understand</td>
<td>F 4 (3.3%)</td>
<td>M 0</td>
<td>F 3 (2.5%)</td>
<td>M 0</td>
<td>F 4 (3.3%)</td>
</tr>
<tr>
<td>6.) The provider brushed off my questions</td>
<td>F 66 (54.1%)</td>
<td>M 32</td>
<td>F 45 (36.9%)</td>
<td>M 25</td>
<td>F 6 (4.9%)</td>
</tr>
</tbody>
</table>

Table 9: Gendered difference between responses to the satisfaction with care questionnaire.
Hypothesis 3 stated; *Higher scores on the MBS will be inversely related to practice of health protective behaviors.* For the purpose of this analysis a "health protective score" was created. Participants received a score of 1 for positively engaging in the following behaviors; having any kind of health insurance coverage, having a primary care provider, visiting a primary care provider in the last 12 months, establishing a regular relationship with a care provider, and knowing where to find care for a mental health concern. The maximum score on this scale was 5. Analyzing the individual items allows the reader to understand the differences in gender representation on each item. A slightly higher percentage of men reported having insurance than women, but women reported having a primary care provider, appointment in the last year and a relationship with their provider at higher rates. To review the differences between individual health-protective behaviors, please review Table 12. In order to further analyze hypothesis 3, a Wilcoxon Rank Sum Test was run and found no significant difference between health protective behaviors when all participants were included regardless of sex ($z = -0.824$, $p = 0.410$).

Next, a Wilcoxon Rank Sum Test was run to ascertain if male participants scoring more highly on the MBS would engage in fewer health protective behaviors. An inverse non-significant relationship was found between the MBS and health protective behaviors. Men scoring lower on the MBS ranked more highly in the health protective score ($z = -1.094$, $p = 0.274$).
Furthermore, of the participants with a hypertension diagnosis, the majority of patients took their medication the majority of the time (78.6%). But of the patients with this diagnosis who reported never taking their medication, the majority (75%) identified as a woman.

Of the participants with a diabetes diagnosis, the majority of patients (73.9%) reported taking their medication the majority of the time. Of the patients who claimed to never medicate diabetes as prescribed by a physician all (100%), identified as a woman.

For further clarification of the raw data included in these analyses, please refer to Tables 10 and 11.

<table>
<thead>
<tr>
<th>Hypertension Medication Habits</th>
<th>n (%)</th>
<th>W</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, never</td>
<td>12 (21.4%)</td>
<td>9 (25.0%)</td>
<td>3 (15.0%)</td>
</tr>
<tr>
<td>Yes, sometimes</td>
<td>1 (1.8%)</td>
<td>1 (2.8%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Yes, usually</td>
<td>3 (5.4%)</td>
<td>0 (0.0%)</td>
<td>3 (15.0%)</td>
</tr>
<tr>
<td>Yes, Always</td>
<td>40 (71.4%)</td>
<td>26 (72.2%)</td>
<td>14 (70.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>56</td>
<td>36</td>
<td>20</td>
</tr>
</tbody>
</table>

Table 10: Medication habits of participants with a hypertension diagnosis by gender.

<table>
<thead>
<tr>
<th>Diabetic Medication Habits</th>
<th>n (%)</th>
<th>W</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, never</td>
<td>6 (26.1%)</td>
<td>6 (37.5%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Yes, sometimes</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Yes, usually</td>
<td>2 (8.7%)</td>
<td>0 (0.0%)</td>
<td>2 (28.6%)</td>
</tr>
<tr>
<td>Yes, Always</td>
<td>15 (65.2%)</td>
<td>10 (62.5%)</td>
<td>5 (71.4%)</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>16</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 11: Medication habits of participants with a diabetes diagnosis by gender.

To understand factors impacting health protective behaviors, a Wilcoxon Rank Sum test was run to compare individuals with higher education with those with a GED,
high school diploma or a trade license. No statistically significant difference was found, however those with a Bachelor's degree or higher were found to rank higher in health protective behaviors, but not by much ($s = -.202, p = 0.84$)
<table>
<thead>
<tr>
<th>Health Protective Variables</th>
<th>n</th>
<th>Women (%)</th>
<th>Men (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Insurance Coverage</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>223</td>
<td>144</td>
<td>79</td>
</tr>
<tr>
<td>(97.4%)</td>
<td></td>
<td>(96.6%)</td>
<td>(98.8%)</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>(2.1%)</td>
<td></td>
<td>(2.7%)</td>
<td>(1.3%)</td>
</tr>
<tr>
<td>Prefer not to Answer</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>(0.5%)</td>
<td></td>
<td>(0.7%)</td>
<td>(0.0%)</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>229</td>
<td>149</td>
<td>80</td>
</tr>
<tr>
<td><strong>Primary Care Provider</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>190</td>
<td>128</td>
<td>62</td>
</tr>
<tr>
<td>(85.6%)</td>
<td></td>
<td>(89.5%)</td>
<td>(78.5%)</td>
</tr>
<tr>
<td>No</td>
<td>32</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>(14.4%)</td>
<td></td>
<td>(10.5%)</td>
<td>(21.3%)</td>
</tr>
<tr>
<td>Refuse to Answer</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Missing</td>
<td>7</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>229</td>
<td>149</td>
<td>80</td>
</tr>
<tr>
<td><strong>Appointment in Last Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>183</td>
<td>122</td>
<td>61</td>
</tr>
<tr>
<td>(82.8%)</td>
<td></td>
<td>(85.9%)</td>
<td>(77.2%)</td>
</tr>
<tr>
<td>No</td>
<td>38</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>(17.2%)</td>
<td></td>
<td>(14.1%)</td>
<td>(22.8%)</td>
</tr>
<tr>
<td>Missing</td>
<td>8</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>229</td>
<td>149</td>
<td>80</td>
</tr>
<tr>
<td><strong>Relationship with Care Provider</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>190</td>
<td>122</td>
<td>61</td>
</tr>
<tr>
<td>(85.6%)</td>
<td></td>
<td>(85.9%)</td>
<td>(77.2%)</td>
</tr>
<tr>
<td>No</td>
<td>32</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>(14.4%)</td>
<td></td>
<td>(14.1%)</td>
<td>(22.8%)</td>
</tr>
<tr>
<td>Missing</td>
<td>7</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>229</td>
<td>149</td>
<td>80</td>
</tr>
<tr>
<td><strong>Mental Health Care Provider Knowledge</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>180</td>
<td>118</td>
<td>62</td>
</tr>
<tr>
<td>(81.4%)</td>
<td></td>
<td>(82.5%)</td>
<td>(79.5%)</td>
</tr>
<tr>
<td>No</td>
<td>41</td>
<td>25</td>
<td>16</td>
</tr>
<tr>
<td>(18.6%)</td>
<td></td>
<td>(17.5%)</td>
<td>(20.5%)</td>
</tr>
<tr>
<td>Missing</td>
<td>8</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>229</td>
<td>149</td>
<td>80</td>
</tr>
</tbody>
</table>

Table 12: Demographic differences between the individual items used to create the health protective score.
Hypothesis four states; Higher education will mitigate the impact of gendered expectations and result in lower MBS scores for men with college degrees. A Wilcoxon Rank Sum Test indicated no statistically significant difference between participants with degrees from higher education and those without a higher education degree on their MBS scores \((z = -1.528, \ p = 0.126)\). To compare the impact of gendered expectations solely on men, a Wilcoxon Rank Sum was run for men identified as more masculine and men identified as less masculine. No significant difference was found between men of different education levels \((z = -0.581, \ p = 0.582)\).

Almost 9\% of men responding to this survey reported receiving a diabetes diagnosis in their life. The incidence rate for diabetes in America for men is around 5-6\% (CDC, 2015). These slightly elevated incidence rates could indicate men responding to this survey may eat a high fat diet or be genetically predisposed to diabetes. Diet can be a health protective or a health risking behavior. Without collecting these data, this notion is purely speculative.

In addition to these data related to the hypotheses tested, data concerning beliefs and attitudes towards mental health care were collected. When asked if participants had ever felt the need to meet with a mental health care provider, almost half (45.1\%) of participants reported they had felt the need to meet with a mental health care provider, as displayed in Table 13. Both men and women reported similar rates of feeling a need to meet with a mental health care provider.
<table>
<thead>
<tr>
<th>Mental Health Care Need</th>
<th>n</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>101 (45.1%)</td>
<td>67 (46.2%)</td>
<td>34 (43.0%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>123 (54.9%)</td>
<td>78 (53.8%)</td>
<td>45 (57.0%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>229</td>
<td>149</td>
<td>80</td>
</tr>
</tbody>
</table>

*Table 13: Health Care Need by Gender. Table 13 shows the reported health care need of participants, organized by gender.*

For a full list of questions in this survey, please refer to Appendix A
Discussion

The first hypothesis tested in the study that stated; *Men will exhibit higher scores on the Masculine Behavior Scale*, was not supported. The scores were the opposite of expected, interestingly. The MBS for women participating in this survey was 1.38 while the minimum score was -8 and the maximum score reported for a woman participating in this survey was 10. The average score for men participating in this survey was 0.58 while the maximum score for a man participating was 6 and the minimum was -9. Overall men agreed with the items on the MBS less than the women taking this survey. Additionally, women disagreeing with items on the MBS disagreed less than men taking the survey, as shown by the minimum scores. Overall women taking the survey appeared to agree more with the MBS than men taking this survey. Previous research suggests men should agree with the items on the MBS in a significant manner (Snell, 1989). But as stated earlier, as society changes so too do gender roles. It is possible that masculine beliefs have changed enough after the validation of the MBS, that the behaviors measured no longer represent current masculinity. Furthermore, the environment in which the participants were selected from produced a fairly homogenous participant pool ethnically, racially and educationally. Additionally, the success of many participants may have afforded the opportunity to shed their masculine beliefs. Studies suggest men cling to masculine expectations when threatened, but more research is needed to understand if the opposite happens in a non-threatening environment.

The second hypothesis tested in this study which stated; *higher scores on the MBS will correlate with less patient satisfaction*, was not supported. No statistically significant difference was found between men ranking highly on the MBS and women. Opposing the
hypothesis, men with a higher MBS score also reported a more satisfying appointment with their physician, but this relationship was not statistically significant. Results were surprising, as previous research suggests health care providers spend less time with men, offer less health information, offer less health advice are less likely to counsel on health behaviors when compared to health care women receive (Courtenay, 2000). Although, men surveyed may have desired a shorter and more concise appointment. Without knowing how the men in this survey defined a satisfying appointment, or specifics of the appointment speculation is all that can be produced.

Additionally, almost half of the men indicating they had visited a primary care provider in the last year selected "not applicable" when asked if they would return to this provider for future needs. Without asking what their particular visit was for, reasons for not returning to this physician are purely speculative. But, this indicated this was either a trauma related visit, or the visit could have been an appointment requiring a visit with a specialist. More men reported a return visit as non-applicable to their visit than women. Indicating a possible gendered difference in return visits. Not needing to return to the care provider provides information about engagement with the health care system, but without knowing more about that particular visit and the participant’s health history results are purely speculative.

The third hypothesis tested stated; *Higher scores on the MBS will be inversely related to practice of health protective behaviors.* No differences were found. While men reported slightly higher rates of insurance coverage (2.2%), men reported non-significant lower rates of four other health protective behaviors measured; having a primary care provider, completing an appointment within the last year, a relationship with a primary
care provider and knowledge of mental health care access. No significant differences were found for men with a higher MBS score when compared to other men, and the general population as well as men tested against women. The lower reported rates of health protective behaviors could help fuel future research. Additional health protective behaviors such as diet, exercise, alcohol intake or even risky sexual behavior would be of interest in future studies. Including a more diverse population could also produce more significant results. Previous research suggests that men identifying more with scales measuring self-reliance, were more likely to participate in health protective behaviors like scheduling cholesterol screenings and routine checkups (Murray-Law, 2011).

The last hypothesis tested stated; Higher education will mitigate the impact of gendered expectations and result in lower MBS scores for men with college degrees. No statistically significant difference was found between men based on education level. Interestingly, the few men with an associate's degree scored higher on the MBS on average when compared with men of higher education. The extremely low number of men participating in this survey could cloud the results though. Future research should include a more diverse group of individuals. The majority of respondents were faculty and staff at the university, including other employers from different fields could lead to significant results. Lack of education has been linked to strong relationships with masculine norms (Courtenay, 1998). Current research does not clearly investigate higher education's impact on masculine norms.

In addition to data directly related to the hypotheses, data surrounding current diagnoses and medical conditions were collected. Men reported slightly higher rates of diabetes (9%) than the national average (5-6%) (CDC, 2015). Again, future research
including diet and exercise patterns could yield information that could uncover information that could help understand health of the population. Of the men reporting a diabetes diagnosis, all reported taking their medication either the majority of the time or always. Men participating in the survey who identified as having a hypertension diagnosis still reported taking their medication regularly for the majority (75%) of the respondents. For these men, these behaviors are health protective behavior and further study could identify their understanding of health care, so this model could be replicated in underserved populations.

While none of the hypotheses were supported, valuable information was still obtained. Currently, there is little literature documenting the acceptance of masculine beliefs by college age women. Now, in a time where more women are obtaining college degrees than men and genders are approaching equality at a rate not seen before, it is possible that women are holding masculine beliefs closer as an attempt to gain more equality. The most interesting data, may be those not collected. Only 80 men responded to the survey and nearly 150 women responded. This lack of response may indicate the discomfort men feel about discussing health related behaviors. This is a fact that should be used to fuel further study of men's attitude towards discussing health related behaviors. Additionally, in the future studying the type of medical appointment would help researchers understand men's engagement with care.

**Limitations of Study Included**

A selection bias may have occurred during the recruitment process of the suggested research. The survey was only taken by individuals associated with Wright State University and the progressive culture found on college campuses created an
environment allowing men to explore identities not as closely linked to masculine ideals. Also, the survey does rely on access to e-mail and this may serve to narrow the population’s heterogeneity. Also limiting the study is the lack of incentive to increase attention paid to the project. The sample size should be increased to provide more power to distinguish results, and should also include a more diverse group of individuals. Additionally, the measure of gender may have been inappropriate. Future research could include the full Masculine Behavior Scale, or possibly the Bem Sex Role Inventory. The Bem Sex Role Inventory provides more personality facets to measure; masculinity, femininity and androgyny. A more inclusive measure could provide a greater understanding of gender and the impact on health.

**Conclusion**

Understanding health engagement practices for different members of a population is an important topic for the well-being of a community. Currently, little literature outlines the reasons for the low health care engagement rates of men. The findings of this study expanded the work of previous researchers in area of health care and masculine identities and provided surprising outcomes which provide fertile ground for future investigation and hopefully health intervention design. Research investigating determinants of men’s health care access are important because interventions designed to reduce men’s health risks are rarely designed, even though counseling and psychological interventions have produces in the last 3 decades (Courtenay, 2000).
Men involved in this study did not respond as expected; men scored lower on the MBS and engaged in more health protective behaviors. Health protective behaviors may be important for future research to investigate, as health protective behaviors are an active way to avoid interaction with the medical system. Interestingly, men were more often engaged in self-managed care such as insulin management and medication management, than women responding to this survey. Additionally, women scoring higher on the MBS were less likely to manage their care than men scoring highly on the MBS. Further investigation into the gendered manifestation of agreement with the exaggerated self-reliance and control subscale.

Future research could also examine the relationship between the MBS and gender. Women participating in this survey scored much higher on the MBS than men participating in the survey. Future research could examine if women overall rank higher on the MBS of if the women participating in this survey supplied atypical responses. If women are scoring differently than scores collected when the instrument was validated, the instrument may need a revision. Women may score differently on the MBS because of a desire to succeed. The MBS was validated in 1989, the role of women in the workplace has changed significantly in this time, but many gender roles remain unchanged. Further investigation may be necessary to understand the complex relationship between success ideation and gender.

These data collected have generated numerous ideas for future research which include; inclusion of a more inclusive gender scale, inclusion of a more diverse population as well as more in depth health care appointment questions. The results of this study suggest that current understanding of masculine ideals may be changing or
education may provide a useful intervention to battle the hardship masculinity causes health. Furthermore, future research could go beyond examining only personal behavioral outcomes, but also look to analyze the sociocultural and environmental factors.

While this study did not yield significant results, the study did provide information for future research to implore how masculinity impacts health care behaviors for individuals not involved with a university. Research focusing on the relationship between gender identity and health practice is vital for public health policy, intervention and guidelines.
Appendix A

Health Behaviors

Q1 This is an invitation to consider participating in a study I am conducting as part of a research project to obtain a Master's degree in the Department of Applied Behavioral Sciences at the Wright State University. I would like to provide you with more information about this project and what your involvement would entail if you decide to take part. This purpose of this research is to obtain a better understanding of the attitudes and access of primary and behavioral health care as well as satisfaction with primary care encounters. Participation in this study is voluntary. Participation will involve a self-administered and internet based questionnaire that takes approximately 10 minutes to complete. Further, you may decide to withdraw from this study at any time without any negative consequences. All information you provide is considered completely confidential. Your name will not appear in any thesis or report resulting from this study. Data collected during this study will be retained for 5 years in a locked office in my supervisor’s office. Only researchers associated with this project will have access. There are no known or anticipated risks or benefits to you as a participant in this study. If you have any questions regarding this study, or would like additional information to assist you in reaching a decision about participation, please contact me by e-mail at Tessa.miracle@wright.edu. You may also reach my advisor Dr. Jacqueline Bergdahl at Jacqueline.Bergdahl@Wright.edu. If you have any questions about your rights as a research subject, you may call the Wright State IRB Office at (937) 775-4462. You can discuss any questions about your rights as a research subject with a member of the IRB or staff. The IRB is an independent committee made up of people from the University community, staff of the institutions, as well as people from the community not connected with these institutions. The
IRB has reviewed this research study. Thank you in advance for your assistance in this project. If you are willing to participate, please select "I consent" below. If you would like to print a copy of this consent for your records, please do so now.

- I consent
- I do not consent

Q2 Which gender do you identify as?

- Female
- Male
- Other

Answer If Click to write the question text Other (Please Specify) Is Selected

Q3 If you answered "Other" from above, please specify your gender below

Q4 Do you identify as LGTB (Lesbian, Gay, Transgender, Bi-Sexual)

- Yes
- No
- Refuse to Answer

Q5 What is your age?
Q6 Would you describe yourself as:

- American Indian/ Native American
- Asian
- Black/ African American
- White/ Caucasian
- Pacific Islander
- Multi-racial
- I prefer not to answer

Q7 Are you of Spanish, Hispanic or Latino origin or descent?

- No, not Spanish/ Hispanic/ Latino
- Yes, Puerto Rican
- Yes, Mexican, Mexican American, Chicano
- Yes, Cuban
- Yes, other Spanish/ Hispanic/ Latino
Q8 What is the highest level of education you have completed?

- High School
- Associate's Degree
- Bachelor's Degree
- Master's Degree
- Other

Answer If What is the highest level of education you have completed? other Is Selected

Q9 Please identify your highest level of education below.

Q10 What is your relationship to Wright State University? Please select all that apply.

- Undergraduate Student
- Graduate Student
- Faculty
- Staff
- No relation to WSU

Q11 Do you have any kind of health insurance coverage?

- Yes
- No
- I prefer not to answer

If No Is Selected, Then Skip To If you have visited a primary care pr...
Q12 Where is your health insurance from that you use to pay for any doctor or hospital bills? Is your insurance through: (Please make your selection based on your main type of insurance)

- Your employer
- A family member's employer
- The military
- Government insurance program such as Medicaid or Medicare
- Other

Answer If Where is your health insurance from that you use to pay for any doctor or hospital bills? Is your... Other Is Selected

Q13 If you answered "Other" above, please specify insurance type below
Q14 The items listed below inquire about some of your attitudes, beliefs, and opinions. As such, there are no right or wrong answers, only your responses. For each item you will be asked to indicate how much you agree or disagree with the statement listed in that item. Please evaluate the following statements.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I try to be in control of everything in my life</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I make sure that I &quot;call the shots&quot; in my life</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I don't take advice from others</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I don't let others tell me what to do with my life</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I don't allow others to have control over my life</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Q15 Do you have a primary care provider? (A primary care provider is a health care practitioner who is seen for common medical problems and checkups. While this person is usually a doctor, they may be a physician assistant or a nurse practitioner)

○ Yes
○ Not at this time
Answer If Do you have a primary care provider? (A primary care provider is a health care practitioner who i... Not at this time Is Selected

Q16 If you do not have a primary care provider please select the strongest reason why below:

- Lack of insurance/ability to pay
- Provider recently retired or moved
- I am new to the area and have not had time to find a new provider
- I do not get sick very often
- Proximity to care
- Other

Answer If If you do not have a primary care provider please select the strongest reason why below: Other Is Selected

Q17 If you selected "Other" above please specify below

Q18 Have you visited a primary care provider in the past 12 months?

- Yes
- No
Q19 If you have visited a primary care provider in the past 12 months please evaluate the following statements regarding your most recent visit.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Not Applicable</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The provider gave me an explanation of what was happening during the examination</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I felt the provider criticized me for not taking care of myself</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I would return to this provider in the future for health care needs</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The provider made me feel as though I could talk about any kind of problem</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The provider offered explanations in language I could understand</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The provider brushed off my questions</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Q20 Do you have a doctor or health care provider you see regularly if you are ill or need a checkup?

- Yes
- No

Q21 Have you ever been told by a health care provider that you have a hypertension diagnosis (also called high blood pressure)?

- Yes
- No
- Unsure

Answer If Have you ever been told by a health care provider that you have a hypertension diagnosis (also called high blood pressure)? Yes Is Selected

Q22 If you have received a hypertension diagnosis, are you currently taking medication for your high blood pressure?

- No, never
- Yes, sometimes
- Yes, usually
- Yes, Always
Q23 Have you ever been told by a health care provider that you have diabetes?

- Yes
- No
- Unsure

Answer: If you have not been told by a health care provider that you have diabetes, is selected.

Q24 If you have received a diabetes diagnosis, are you currently taking prescribed medication for diabetes?

- No, never
- Yes, sometimes
- Yes, usually
- Yes, always

Q25 Have you ever felt the need to meet with a mental health practitioner?

- Yes
- No

Q26 If you felt necessary, would you know where to find a mental health care provider?

- Yes
- No
Q27 Evaluate the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are experiences in my life I would not discuss with anyone</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I would want to get psychiatric attention if I was worried or upset for a long period of time</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Keeping one's mind on a job is a good solution for avoiding personal worries and concerns</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>There are a few times when I have felt lost and would have welcomed professional advice for a personal or emotional problem</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I would feel uneasy seeking mental health care because of what some people might think</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Q28 Thank you for taking the time to complete the survey. At this time your participation is complete, if you find that any of the topics covered have lead to health questions or concerns please contact your local health professional. If you have any questions, or are interested in the findings of this study, please contact me at Tessa.Miracle@wright.edu
References:


Curriculum Vitae

Curriculum Vitae
Tessa Louise Miracle
Wright State University
Boonshoft School of Medicine – Substance Abuse Resource & Disabilities Issues

Education

<table>
<thead>
<tr>
<th>Institution</th>
<th>Concentrations</th>
<th>Degree/Date</th>
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<tr>
<td>Wright State University</td>
<td>Applied Behavioral Sciences</td>
<td>M.A. 2016</td>
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<td>Wright State University</td>
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<tr>
<td></td>
<td></td>
<td>B.A. 2012</td>
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<tr>
<td>Wright State University</td>
<td>Biology</td>
<td>B.S. 2011</td>
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<td>Wright State University</td>
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</table>

Professional Experience

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<tr>
<th>Institution</th>
<th>Position</th>
<th>Dates</th>
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<tbody>
<tr>
<td>Wright State University, Dayton, OH</td>
<td>Program Manager</td>
<td>2015-2015</td>
</tr>
<tr>
<td>Wright State University, Dayton, OH</td>
<td>Research Assistant</td>
<td>2012-2015</td>
</tr>
</tbody>
</table>

Certification
Ohio Certified Prevention Specialist II

Teaching

Invited Guest Lectures

Scholarship

Journal Articles

Scholarship Under Review

Brochures
Websites

Unpublished Work
  (Master’s Thesis).
  Manuscript under revision.

Unpublished Papers Given at Professional Conferences
campus culture.”
  Presented to Ohio Association of County Behavioral Health Authorities Annual
  Conference. Columbus, OH. (I).
Miracle, T.L., (2015, October). “Positive outcomes for SPMI patients.” Presented to
  American Public Health
  Sociological Conference. Cleveland, OH. (I).

Invited Lectures, Colloquia, Symposia, Seminars
  Grieving to Action to
  Prevention Summit. Akron, OH. (I).
Miracle, T.L., & Fruth, J.D. (2016, September) “WSU bystanders.” Presented to Wright
  State University
  Title IX Office. Dayton, OH. (I).
Miracle, T.L., & Fruth, J.D. (2016, September) “WSU bystanders.” Presented to Wright
  State University
  undergraduate student consortium. Dayton, OH. (I).
Miracle, T.L., & Fruth, J.D. (2016, September) “WSU bystanders.” Presented to Wright
  State University
  Athletic Training Program. Dayton, OH. (I).
  Area Superintendents.
  Dayton, OH. (I).
Miracle, T.L. (2015, October) “University coalition collaborations.” Presented to
  Montgomery County Prevention Coalition. Dayton, OH. (I).
Grants Pending
Program Title: Alcohol Responsibility Program – Greene County
Principal Investigator: Tessa Miracle, Jason Fruth
Funding Source: International Town & Gown Association/Responsible Retailing Forum
Period: 7/1/16-6/30/17
Amount: $50,000

Grants Funded
Program Title: Healthy Campus Partners
Principal Investigator: Tessa Miracle, Jason Fruth
Funding Source: Ohio Department of Higher Education
Period: 7/1/16-6/30/17
Amount: $51,600.00

Research Projects
Universal Prevention and Views on Diversity
   2016
Universal Prevention and Views on Health
   2016
United Against Violence – Evaluation of Second Step
   2015
HIV/AIDS in Tanzania – Analyzing Risk Factors
   2013
Interact for Health – Evaluating Integrated Care in Greater Cincinnati
   2012

SERVICE
Professional Memberships
Alcohol and Drug Abuse Prevention Association of Ohio
AIDS Resource Center Associate Board
Equitas Associate Board
Statewide Prevention Coalition Association
American Public Health Association
PreventionFIRST!
Community Anti-Drug Coalitions of America
Midwestern Sociological Association
Wright State University Alumni Association

University Service

<table>
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<tr>
<th>Date</th>
<th>Role</th>
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<tbody>
<tr>
<td>Healthy Campus Partners Advisory Board</td>
<td>Co-Chair</td>
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<tr>
<td><strong>Academic Service</strong></td>
<td><strong>Role</strong></td>
</tr>
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<td>----------------------</td>
<td>----------</td>
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<tr>
<td><strong>Dates</strong></td>
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<tr>
<td>Town Gown Planning Advisory Board</td>
<td>Member</td>
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<tr>
<td>2016- Present</td>
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<tr>
<td>Greene County Drug-Free Coalition</td>
<td>Member</td>
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<td>2016- Present</td>
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<tr>
<td>Wright State University Opioid Task Force</td>
<td>Member</td>
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<td>2016- Present</td>
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<tr>
<td>Montgomery County Prevention Coalition</td>
<td>Member</td>
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<tr>
<td>2015- Present</td>
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<tr>
<td>Montgomery County Prevention Coalition – Mental Health Committee</td>
<td>Member</td>
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<tr>
<td>2015- Present</td>
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<tr>
<td>Montgomery County Drug-Free Coalition</td>
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<tr>
<td>2015- Present</td>
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<tr>
<td>Infant Mortality Coalition – Montgomery County</td>
<td>Member</td>
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<tr>
<td>Montgomery County Drug-Free Coalition Education Committee</td>
<td>Member</td>
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<td>2015- Present</td>
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<thead>
<tr>
<th><strong>Community Service, Training and Consulting</strong></th>
<th><strong>Role</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Dates</strong></td>
<td></td>
</tr>
<tr>
<td>Grieving to Action to Prevention Summit</td>
<td>Panel Member</td>
</tr>
<tr>
<td>2016</td>
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