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Minority Stress and Mental Health among Transgender Persons

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M.A., Fairleigh Dickinson University, 1998

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Dissertation Submitted in Partial Fulfillment

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Abstract

Transgender people, a minority population, are at increased risk for negative health and mental health consequences. Profound societal discrimination and stigmatization lead to systemic institutional barriers and lack of access to health care services. Research with lesbian, gay, and bisexual populations shows a strong association between minority stress and mental health; however, there is a gap in research for the transgender population. This study, based on theories of minority stress, positive psychology, the biopsychosocial model, and the transgender model, was conducted to clarify this relationship for the transgender population. Four research questions were proposed. A final sample of N = 29 transgender participants completed an online survey with 3 measures of minority stress (internalized transphobia, stigmatization, and prejudice events) and 5 measures of mental health (depression, suicide, anxiety, and substance abuse [drug and alcohol]). It was predicted that each minority stressor would have an independent effect upon each mental health variable, and when the effects of the stressors were combined, each would maintain an independent effect on mental health, so that their combined effect would be greater than their individual effects. Regression analyses indicated, as expected, participants with higher perceived stigma scores had higher suicidal ideation scores. Contrary to expectations, participants with higher internalized transphobia scores had lower scores on suicidal ideation. No other significant predictive relationships were found. The results of this study advocate for social change initiatives by presenting information on a poorly understood minority group for the purpose of promoting a positive effect for institutions, professionals, and transgender clients in the context of health care settings.

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Chapter 1: Introduction to the Study

Introduction

The transgender population is an underserved minority group showing a far smaller empirical research database than their lesbian, gay and bisexual counterparts within the lesbian, gay, bisexual, and transgender community. The theoretical framework of this study was composed of the minority stress model which hypothesizes that environmental adversity (stigma, violence, and discrimination) causes psychological stress (Meyer, 1995); the biopsychosocial approach within clinical psychology which finds stress to be an important factor in the occurrence of mental health problems related to depression, suicidal ideation, anxiety, and substance abuse (Balsam, Martell, & Safren, 2006; Engel, 1977; Hales, Yudofsky, & Gabbard, 2008; Mays & Cochran, 2001; Sandfort, de Graaf, Bijl, & Schnabel, 2001; Szymanski, Chung, & Balsam, 2001); and positive psychology which emphasizes the deconstruction of the illness model of the *Diagnostic Statistical Manual (DSM)*, human strengths, resilience, and the adaptive potential of coping (Lopez, et al., 2005; Seligman, 2005). In this study, I investigated the relationship between minority stress and mental health for the transgender population. Research with a focus on minority stress and mental health suggests a positive correlation between these two factors (Bos, van Balen, & van den Boom, 2004; DiPlacido, 1998; Garnets & D'Augelli, 1994; Meyer, 1995; Zamboni & Crawford, 2007).

The topic of this study is important to investigate, as the transgender population is a stigmatized group who frequently experience prejudice, discrimination, and violence in everyday life. Transgender persons experience discomfort in health care settings, as health care providers lack information and training to provide care which is sensitive to

their needs (Poteat, German, & Kerrigan, 2013; Shires & Jaffee, 2015). In this quantitative study, I employed an exploratory descriptive design, using parametric, inferential statistical methods to test the hypotheses. The minority stress variable used measures of stigma, transphobia, and prejudice events, and the mental health variable used measures of depression, suicide, anxiety, and substance abuse to determine the nature of the relationship between minority stress and current mental health. The results of this study contribute to a better understanding of transgender individuals, lead to the improvement of services in health care settings, and contribute to the literature on the transgender/transsexual population.

Background of the Problem

The transgender population is an emerging minority group growing in visibility, diversity, and numbers. Terms for describing this population vary widely from definitions found in the literature, to self-definitions used among individuals within the population's communities. "*Transgender*" or "*trans*" is an umbrella term for transsexual, cross-dresser, gender variant, gender queer, gender blending, and transvestite, among others (Devor, 2004). Some persons who do not consistently identify as either female or male are comfortable identifying as transgender (Monro, 2004). Most commonly, "*transsexual*" refers to female to male "FtMs" or "*transmen*", and male to female "MtFs" or "*transwomen*". Transsexuals are currently defined as those who live or strive to live full time in their identified gender whether or not they have had surgical sex change, although the term "transgender" has become the predominant term in the literature for transsexual persons as well (Monro, 2004). Most transgender persons who are in the process of transition initiate hormone treatment and often choose other cosmetic

treatments such as facial feminization surgery, mastectomy, and electrolysis (Rotondi, et al., 2013). Participants in this study were those individuals who identified as at least one of the following: male, transgender female to male, FtM, transman, transsexual female to male, (with a birth gender reported as female); and female, transgender male to female, MtF, transwoman, transsexual male to female (with a birth gender reported as male), although they personally may prefer to use a different self-identification term. The selection criteria will be explained in more detail in Chapter 3.

In the 1980s and 1990s, as a result of pressure from bisexual and transgender groups, the gay and lesbian community formally recognized the common political minority status and similar social identification among LGBT people (Rudacille , 2005). Community mission statements were changed to include the growing bisexual and transgender communities (Rudacille, 2005). The "*LG*" logo became "*LGB*" and then "*LGBT*" as the LG community became more tolerant of, if not more welcoming of, bisexual and transgender people (Rudacille, 2005). In 2009, the American Psychological Association ("APA") published (online) the *Report of the Task Force on Gender Identity and Gender Variance*, contributing information on a wide range of topics such as definitions, demographics, prevalence, and the standard of care. In the report, the APA addressed the needs of transgender students and psychologists, and expanded the dimensions of diversity within the APA to include transgender concerns, manifested in a change of the name for the APA Division 44 from The Society for the Psychological Study of Lesbian, Gay, and Bisexual Issues to The Society for the Psychological Study of Lesbian, Gay, Bisexual, and Transgender Issues.

The transgender community questions society's insistence upon identifying its members by rigid, dichotomous categories of male or female based on biological sex and gender stereotypes. This system has been named society's binary gender system (Devor, 2004). The transgender community thus challenges oppressive cultural norms. Like other minority groups, transgender people are stigmatized and experience a great deal of stress in daily life. According to many researchers (Barker & Wylie, 2008; Bockting & Avery, 2005), discrimination and perceived discrimination in employment, health, and social services have limited access to a health care system reported to be uneducated, inexperienced, and insensitive to the needs of transgender persons; consequently, the transgender population remains an underserved population. Compared to the LGB population, there is much less empirical research for the transgender population who are believed to be at increased risk for mental health problems. The public health system stands alone in its organized efforts during the 1990s to address health needs of certain subgroups of the transgender population (transsexual sex workers), who are at higher risk for HIV transmission and AIDS (Reback & Lombardi, 2001).

Cultural intolerance of sexual orientation and gender identity minorities has resulted in verbal harassment and violence as severe as murder. Agenda-oriented anti-LGBT research studies (Nicolosi, 1991, 1993; Spitzer, 2003; Waller & Nicolosi, 2003) suggested that LGBT people are psychologically deficient and mentally ill. By challenging anti-LGBT research studies, refuting myths and stereotypes, and providing accurate information, researchers can change the negative portrayal of sexual and gender minorities to an accurate representation. Disseminated into the education system and media, this more accurate representation may contribute to a decrease in the societal

conditions that lead to hate-based violence toward LGBT individuals. Change in antidiscrimination policies within institutions often follows change in the contemporary cultural view of minorities.

According to the literature, transgenderism is a new area of research in the social sciences, evolving in the 1990s from studies on related topics of transsexualism; transvestism; gender identity disorder ("GID"); sex reassignment ("SRS"); sexual minorities (intersex, genetic); sexual orientation minorities; and public health studies on populations at risk for HIV+ infection and transmission (Denny, 2004). In an article addressing the development of models of transsexualism, Denny (2004) reported on 1960's psychiatrist Harry Benjamin's development of a transsexual model for the medical and psychological treatment communities, who needed methods to identify and treat people seeking SRS. With this model, Benjamin sought to explain the phenomenon of transsexualism, as the number of people presenting with GID grew (Benjamin, 1966). The medical or biological model pathologizes transsexualism as a form of mental illness, or birth defect and prescribes sex reassignment as the appropriate treatment procedure (Denny, 2004). The two most important applications of the medical models are the World Professional Association for Transgender Health's Standards of Care for Gender Identity Disorders (WPATH, 2011), and the *DSM-IV* (2000), both of which are used to guide treatment of transgender persons.

The medical model defines transgender individuals who present for medical treatment (hormones, surgery, and psychiatric treatment) as pre-operative, post-operative, or non-operative transsexuals (Monro, 2000). Transsexuals who present for treatment are typically diagnosed with GID. According to Monro (2000), in the 1990s a new model of

transgenderism emerged that questioned and criticized the medical approach, explaining transgenderism as a normal expression of gender variability. The transgender model views SRS as one of many viable choices available for transgender individuals, as increasing numbers of transgender persons who live their lives as their non-birth gender have no desire to take hormones or pursue sex reassignment surgery (Bockting & Goldberg, 2006).

"Gender" typically refers to the subjective social status and self-identification of a person as a woman or a man (Denny, 2004). Social psychologists Bussey and Bandura (1999) hold that gender is a social construction. Eagly (1987) suggested gender role behavior is conditioned and maintained through social structures and practices that reinforce the superior power and status of the male gender. The new post-1990 transgender model literature views gender identity as having a significant social component and recognizes the role of social construction of gender (Denny, 2004). Denny reported by the mid-1990s, the term "transgender" was in popular use to describe people whose identities and behaviors varied from the traditional binary gender norms, not only transsexuals, cross-dressers and drag queens, but those who challenged traditional norms of style for gender dress or occupational norms. The transgender model proposed by Boswell (1991) shifted the locus of pathology from the transgender individual to a society and culture that are intolerant of difference and normal gender variability. Boswell suggested that societal mistreatment, violence, and discrimination cause stress, psychological problems, guilt and shame, self-destructive behavior, mood disturbance, dissociative conditions, and personality and behavior disorders – many of the conditions the old transsexual model assumed were symptoms of the mental illness of

transsexualism. I will cover the development of the transgender model in more detail in Chapter 2.

Like other minority groups, transgender people experience a great deal of stress in daily life. However, there have been no studies on stress and mental health that focus on the transgender population. Nor have studies been conducted on specific sources of stress for transgender people, although it is certain that there are external and internal sources unique to their experience. For example, the stressors of "*passing*" (successfully appearing as a woman or a man) especially in employment, excess difficulty accessing medical and mental health care, coming out to family and others, and the whole process of gender reassignment (if this is chosen) are likely to be major stressors for transgender individuals. The purpose of this study was to investigate the relationship between minority stress and mental health among the transgender population, specifically, those who consistently identify with the non-natal gender.

As a stigmatized group similar to the LGB population, the transgender population may be subject to minority stress and at increased risk for mental health issues. The relationship between mental health and social stress has been studied in LGB populations, urban populations, adult women who are single heads of households, middle-aged adults, children and adolescents, and race and ethnic populations. Reback and Lombardi (2001) affirmed the greater risk of certain subgroups of the transgender population (particularly MtF sex workers) for HIV transmission. Bockting, Robinson, and Rosser (1998) and Clements-Nolle, Wilkinson, Kitano, and Marx (2001), among others, found psychosocial stress and substance abuse are risk factors for unsafe sex practices among transgender MtFs. Studies on HIV risk and AIDS account for the

majority of studies that address the issue of stress and mental health of transgender people. Many of these studies were conducted at centers for AIDS intervention research. Chapter 2 will extensively cover the literature on the relationship between minority stress and mental health for transgender people.

Statement of the Problem

Researchers have consistently demonstrated a relationship between stress and both medical health and mental health (Cannon, 1935; Dohrenwend, 2000; Meyer, 1995; Pearlin, Menaghan, Lieberman, & Mullan, 1981; Selye, 1956; Slavik & Croake, 2006; Wright, 2006). Based on empirical data, researchers have found a statistically significant connection between minority stress and mental health problems among sexual minorities (Cochran, Sullivan, & Mays, 2003; DePlacido, 1998; Meyer, 1995; Savin-Williams, 1994; African Americans (Clark, Anderson, Clark, & Williams, 1999; Harrell, 2000; Kessler & Neighbors, 1986; Utsey, Lanier, Williams, & Bolden, 2006); Mexican Americans (Crockett, Iturbide, McGinley, Raffaelli, & Gustavo, 2007); women (Cutrona et al., 2005; McGrath, Strickland & Russo, 2004); refugees (Williams & Berry, 1991); psychiatric patients (Bagley & King, 2005); people with AIDS (Herek & Capitanio, 1998; Mak et al., 2007); Native Americans (Belcourt-Ditloff & Stewart, 2000); and Asian-Americans (Hwang & Ting, 2008; Liao, Wei, Ku, Russel, & Mallinckrodt, 2008; Simoni, Panatalone, Plummer, & Huang, 2007). While the relationship between minority stress and mental health issues has been assumed to be true for the transgender population based on clinical observation and self-reports from transgender individuals, there have been no published empirical studies that focus on this relationship for the transgender population. In this study, I examined the relationship between minority stress and mental

health using a sample of transgender individuals, and focused on the variables of depression, suicide, anxiety and substance abuse.

If transgender persons are at higher risk for psychological distress and related disorders, it is imperative to explore the relationship between these variables to define, understand, and address this risk and to identify the factors that moderate minority stress and contribute to the mental health of transgender people. With more specific information on the transgender population, psychologists and other professionals will be prepared not only to provide treatment that meets the standard of care, but also to influence public policymakers to support effective prevention and intervention programs. Similar to the reduction in societal homophobia, societal transphobia may be reduced as a result of changing the meanings attached to transgenderism to more positive meanings.

Description of Variables, Research Questions, Hypotheses, and Objectives

The independent variable of minority stress was composed of three stressors identified by Meyer (1995) as the main components of the minority stress model: internalized homophobia, perceived stigma, and prejudice events (discrimination, violence/verbal abuse). In 2005 Hill and Willoughby adapted the concept of *homophobia* for transgender persons as *transphobia*. The term and concept of transphobia is in currently in common usage in the literature and was utilized in this research as one of the components of the minority stress variable. There were four dependent variables: depression, suicidal ideation, anxiety, and substance abuse.

I tested each of the three stressors of internalized transphobia, perceived stigma, and prejudice events, known to have an effect on psychological distress on four measures of mental health: depression, suicidal ideation, anxiety, and substance abuse. Clements-

Nolle, Marx, and Katz (2006) investigated the predictors of attempted suicide in the transgender population. The authors found that being younger than 25 years old, having a history of transgender related victimization, i.e., discrimination, sexual abuse, substance abuse, and depression, were predictive of suicide attempts. Kim et al. (2006) assessed depression in Korean MtFs with the Beck Depression Inventory; Operario and Nemoto (2005) assessed depression and suicide in Asian Pacific MtFs. Reback and Lombardi (2001) investigated alcohol/drug use among MtFs, confirming the high use rate others have found. Bockting and Avery (2005) published a series of needs assessment studies drawing participants from the transgender population in the United States. Every study that assessed drug/alcohol use reported higher rates of use, while no empirical research has assessed anxiety in the transgender population. Anxiety and depression are associated and are often co-morbid (*DSM-IV*, pp. 325, 416, 431; Zung, Magruder-Habib, Velez, & Alling, 1990).

Research Questions and Hypotheses

With this study, I developed four research questions utilizing the independent variable of minority stress (internalized transphobia, perceived stigma, and prejudice events) and dependent variables (depression, suicidal ideation, anxiety, and substance abuse). Question 1 addressed the relationship between minority stress and depression. Question 2 addressed the relationship between minority stress and suicidality. Question 3 addressed the relationship between minority stress and anxiety. Question 4 addressed the relationship between minority stress and substance abuse (alcohol and drug).

RQ1: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and depression?

$H_0$1a*:* Internalized transphobia as measured by The Transgender Internalized Transphobia Scale does not predict depression as measured by The Goldberg Depression Scale.

H_a1a*:* Internalized transphobia as measured by The Transgender Internalized Transphobia Scale, predicts depression as measured by The Goldberg Depression Scale.

$H_0$1b: Perceived stigma as measured by The Stigmatization Scale does not predict depression as measured by The Goldberg Depression Scale.

H_a1b*:* Perceived stigma as measured by The Stigmatization Scale predicts depression as measured by The Goldberg Depression Scale.

$H_0$1c: Prejudice events as measured by three single item yes/no questions does not predict depression as measured by The Goldberg Depression Scale.

H_a1c: Prejudice events as measured by three single item yes/no questions predicts depression as measured by The Goldberg Depression Scale.

RQ2: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and suicidal ideation?

$H_0$2a*:* Internalized transphobia as measured by The Transgender Internalized Transphobia Scale does not predict suicidal ideation as measured by The Suicide Behaviors Questionnaire - Revised.

H_a2a*:* Internalized transphobia as measured by The Transgender Internalized Transphobia Scale predicts suicidal ideation as measured by The Suicide Behaviors Questionnaire - Revised.

H_0b*:* Perceived stigma as measured by The Stigmatization Scale does not predict suicidal ideation as measured by The Suicide Behaviors Questionnaire - Revised.

H_a2b: Perceived stigma as measured by The Stigmatization Scale predicts suicidal ideation as measured by The Suicide Behaviors Questionnaire - Revised.

$H_0$2c*:* Prejudice events as measured by three single item yes/no questions does not predict suicidal ideation as measured by The Suicide Behaviors Questionnaire - Revised.

H_a2c: Prejudice events as measured by three single item yes/no questions predicts suicidal ideation as measured by The Suicide Behaviors Questionnaire - Revised.

RQ3: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and anxiety?

$H_0$3a: Internalized transphobia as measured by The Transgender Internalized Transphobia Scale does not predict anxiety as measured by The Zung Self-Rating Anxiety Scale.

H_a3a: Internalized transphobia as measured by The Transgender Internalized Transphobia Scale predicts anxiety as measured by The Zung Self-Rating Anxiety Scale.

$H_0$3b: Perceived stigma as measured by The Stigmatization Scale does not predict anxiety as measured by The Zung Self-Rating Anxiety Scale.

H_a3b: Perceived stigma as measured by The Stigmatization Scale predicts substance abuse as measured by The Drug Abuse Screening Test and the Alcohol Use Disordered Identification Test.

$H_0$3c: Prejudice events as measured by three single item yes/no questions does not predict anxiety as measured by The Zung Self-Rating Anxiety Scale.

H_a3c: Prejudice events as measured by three single item yes/no questions predicts anxiety as measured by The Zung Self-Rating Anxiety Scale.

RQ4: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and substance abuse?

$H_0$4a: Internalized transphobia as measured by The Transgender Internalized Transphobia Scale does not predict substance abuse as measured by The Drug Abuse Screening Test and the Alcohol Use Disordered Identification Test.

H_a4a: Internalized transphobia as measured by The Transgender Internalized Transphobia Scale does not predict substance abuse as measured by The Drug Abuse Screening Test and the Alcohol Use Disordered Identification Test.

$H_0$4b: Perceived stigma as measured by The Stigmatization Scale does not predict substance abuse as measured by The Drug Abuse Screening Test and the Alcohol Use Disordered Identification Test.

H_a4b: Perceived stigma as measured by The Stigmatization Scale predicts substance abuse as measured by The Drug Abuse Screening Test and the Alcohol Use Disordered Identification Test.

$H_0$4c Prejudice events as measured by three single-item yes/no questions does not predict substance abuse as measured by The Drug Abuse Screening Test and the Alcohol Use Disordered Identification Test.

H_a4c: Prejudice events as measured by three single item yes/no questions predicts substance abuse as measured by The Drug Abuse Screening Test and the Alcohol Use Disordered Identification Test.

I predicted that each minority stressor would have an independent effect upon each mental health variable. I also predicted that when the effects of the minority stressors were combined, each would maintain an independent effect on mental health, so that their combined effect would be greater than their individual effects. I attempted to clarify the relationship between minority stress and mental health for the transgender population.

The Transgender Internalized Transphobia Scale is a modification of The Lesbian Internalized Homophobia Scale (Szymanski & Chung, 2001a), modified with the authors' permission for the sample of transgender individuals in this study. See the Appendices D, E, F for The Lesbian Internalized Homophobia Scale and permissions to use and modify. See Appendix F for The Transgender Internalized Transphobia Scale itself.

Transgender people are frequently encountered in large cities where a variety of social networks, community groups, and services for transgender individuals are more easily obtained. While research on the transgender population has increased significantly over the past decade, the empirical database is still comparatively small in a number of studies. Research is needed to provide insights to the understanding of gender identity diversity and to provide answers to a wide range of questions and problems that have

arisen about appropriate assessment and treatment of transgender persons in clinical settings. This population is a growing community in numbers, visibility, need, and demand for mental health services. Mental health professionals require education, information, and training to meet the standard of care for working with transgender individuals.

Transgender people as gender minorities have been grouped socially and politically with sexual orientation minorities. The discipline of psychology, as evidenced in the literature, similarly groups transgender people with LGBs; however, many LGB (sexual minority) studies do not include transgender individuals, who are heterogeneous in terms of sexual orientation. I will cover methodological problems when conducting research with the transgender population in detail in Chapter 3. Although the literature on transgender people as a distinct group has been growing since the mid-1990s, there has been no research specifically addressing the effects of minority stress upon mental health with the transgender population. This study is the first, to my knowledge, to investigate (a) the presence and severity of minority stress with a sample of transgender individuals; and (b) mental health related to minority stress and the transgender population by utilizing formal measures of depression, suicidal ideation, anxiety, and substance abuse.

Purpose of the Study

The main purpose of the study was to investigate the influence of minority stress upon the mental health of the transgender population. Another purpose of the study was to contribute to the empirical research base for this population. Discerning relationships between minority stress and factors of depression, suicide, anxiety, and substance abuse may increase understanding of the influence of minority stress upon mental health

outcomes for this group. Understanding this relationship may be an initial step in reducing transphobia among health providers, improving quality of care resulting in improved access to health care, and creating an inclusive worldview of human diversity among people and nations which may result in positive policy and legal changes for the transgender population.

This study was quantitative in nature, and I aimed to clarify the relationship between minority stress and mental health for the transgender population: Better understanding of the influence of minority stress on mental health will inform health providers and policymakers who are in a position to improve services, programs and inclusiveness for transgender individuals. Research is necessary to clarify the impact of minority stress which has been explored for the LGB population but not for the transgender population. There is a paucity of research on transgender mental health. Increased understanding of the mental health concerns of the transgender population is sure to lead to better relationships between providers and clients, to improvement in health for transgender individuals, and to improved integration of transgender individuals as acceptable members of society. Social change results from the accumulation of research which describes, explains, and normalizes the broad spectrum of human diversity. The field of psychology progresses with increased research, understanding, and the development of new theory, models, and assessment instruments.

Theoretical Constructs

This study was grounded on the theoretical construct of minority stress. Meyer (1995), who developed the concept, found that stress experienced by gay men arises from both external (societal, cultural) and internal (psychological) sources. Transgender

people, as a stigmatized minority group, are exposed to the same kinds of minority stressors as LGB people i.e., external sources of societal transphobia, discrimination and violence/verbal abuse, and internal sources by internalized transphobia (Hill & Willoughby, 2005; Rupert, 2002; Sugano, Nemoto, & Operario, 2006; Weiss, 2003). In addition, transgender individuals are exposed to stressors unique to their population, such as stress from the effects of the process of "passing", and physical stress related to numerous medical procedures such as hormone administration, surgery, and cosmetic procedures such as electrolysis (Roen, 2002). "Passing" refers to the effort of a transgender person to blend into society and to be perceived as their appropriate (internal) gender (Roen, 2002).

According to Meyer's (1995) minority stress model, stigmatization by society, internalized homophobia, violence and discrimination are major stressors that place sexual minority individuals at risk for stress-related mental health issues. According to research on LGB mental health issues by Balsam et al. (2006), Mays and Cochran (2001), Sandfort et al. (2001), and Szymanski et al. (2001), there is a higher prevalence of substance abuse disorders, affective disorders, and suicide among LGB people, who are exposed to a stressful social environment. In contrast to researchers who have attributed the higher prevalence of mental health disorder to being LGBT, these authors suggested that stigma, prejudice, and discrimination lead to distress and can lead to mental health problems for members of LGBT stigmatized minority groups. Results of research on this hypothesis support the minority stress model. I will cover the theoretical development for the minority stress model in more detail in Chapter 2.

The biopsychosocial approach originating in the work of Engel (1977) also informed my approach in this study. The biopsychosocial approach within psychiatry, health psychology, and clinical psychology considers psychosocial stress as an important factor in the occurrence of mental health issues such as depression, suicide, anxiety, and substance abuse (Belar & Deardorff, 1995). As Hales et al. (2008) explained, in the biopsychosocial model, the *meanings* of an individual's sexual orientation or gender identity will be shaped by cultural factors and need to be understood as such. This theoretical approach contributes to a broader and deeper understanding of the different contexts of minority stress. The premise of the biopsychosocial model is that psychology, biology, and context are integrated rather than separate systems, contrary to the Cartesian mind-body approach still prevalent in modern-day science (Schwartz, 1982). For transgender individuals who have unique experiences in terms of minority stress, the biopsychosocial model offers an integrated, multidimensional approach for use in research, theoretical development, and applied clinical health care. I will explain this model will be explained in more detail in Chapter 2.

The positive psychology movement also informed my approach to the study. According to Seligman (2005), the approach of positive psychology focuses on the deconstruction of the medical-illness model of the *DSM* and emphasizes human strengths, resilience in development, and the adaptive potential of coping attributes. Lopez et al. (2005) placed positive psychology in a context of multiculturalism, identifying the emphasis of the movement on the diverse psychological strengths of individuals, subgroups, and cultural groups. The theoretical stance of positive psychology resonates with my overall focus in this study of placing positive value on studying and

understanding the mental health issues of the transgender population. I will explain this model in more detail in Chapter 2.

The development of transgender models of identity development (Denny, 2004; Monro, 2000), through which this study was conceived, was spurred in the 1990s by transgender community activists who protested traditional, pathologizing views of transgender people. Clinicians have begun to explore transgender identity formation and researchers are conducting an increasing number of studies that contribute to describing and understanding transgender people (Bockting, 2014). This exploration supports the need for the development of theoretical models and psychological treatment models. Meyer (2003) discussed the fact traditional models of sexual orientation development focus on identity development for the LGB population but do not sufficiently explain identity development for transgender individuals.

More recently, Devor (2004) has developed a model of transsexual identity development similar to gay identity "*coming out*" models. Denny (2004) articulates the "new" transsexual or transgender model, charting the paradigm shift from the explanation of transsexualism as a mental disorder to the new model, which explains transsexualism as an expression of normal human gender variability. Denny offered criticism of the transsexual model, stating its overall advantages and disadvantages, especially for transsexual persons who are more unambiguous in their gender identity and who may not feel comfortable being grouped with those with of more ambiguous gender. Rosario (2004) also offered criticisms of the medical and psychiatric models who act as gatekeepers to sex reassignment.

Bockting's clinical work with transgender clients (Bockting, Knudson, & Goldberg, 2006) at the University of Minnesota Transgender Health Services Program and direction of research projects on HIV prevention within transgender communities in the United States, have contributed valuable clinical data which support further development of the transgender model. Bockting and Avery (2005) also edited a book dedicated to needs assessments studies that provided empirical data on larger problems of social stigma, discrimination, and lack of access to transgender-specific and sensitive health care, and HIV risk. These studies included data on demographics, mental health service utilization, sexually-transmitted disease, gender dysphoria, substance abuse, housing and employment. Other studies conducted by Bockting and colleagues contributed data on client satisfaction with health services in the transgender health clinic (Bockting, Robinson, Benner, & Scheltema, 2004); the evaluation of approaches to HIV prevention in the transgender community (Bockting, Robinson, Forberg, & Scheltema, 2005); and psychological aspects of reconstructive surgery (Bockting & Fung, 2005).

There are several well-developed models of transgender patient/client psychological care which have a reciprocal relationship with theoretical development. Mallon and DeCrescenzo (2006) presented their practice guidelines for working with transgender children and adolescents. The authors' perspective was based on their combined 60 years of holistic clinical practice with gender variant young people and their families and their development of theory on transgender children and youth. Representative of the range of medical models and theories, Spitzer (2005) argued for the removal of GID from the *DSM*, while Fink (2005) advocated for mandatory psychiatric ombudsmanship for those seeking SRS. Dr. Bockting contributed prolifically to both

practice and theory through his clinical work at the University of Minnesota and through numerous journal publications (Bockting, 1997a; 1997b; Bockting & Coleman, 2007; Bockting & Goldberg, 2006). Bockting's work with the transgender population has addressed a wide range of issues related to transgender care. I will cover transgender models and theory development related to minority stress and mental health more broadly and in more detail in Chapter 2.

Definition of Terms

Transgender: Seil (2004) defined transgender as "the subjective sense of the gender that one feels one is, regardless of what genitals a person has" (p. 101) or the gender assigned at birth. The definition according to the APA Task Force on Gender and Gender Variance (2009) is "Transgender or gender variant refers to the behavior, appearance, or identity of persons who cross, transcend, or do not conform to culturally defined norms for persons of their biological sex" (p. 29). The term transgender refers to the full spectrum of persons with non-traditional gender identities, however, the term has recently become used more frequently to refer to persons who fit the traditional definition of transsexual (Seil, 2004).

Transsexual: According to Schaefer and Wheeler (2004), transsexual refers to a person who lives, is known, and whose sex/gender is accepted as other than that assigned at birth based on genital anatomy.

Mental health: Psychological concepts from positive psychology (Baumgardner, 2009; Lopez & Snyder, 2004; Maddux, 2008; Peterson, 2006; Snyder & Lopez, 2005, 2007) which emphasize subjective well-being (emotional vitality) and positive functioning (psychological well-being and social well-being). As a variable in this study,

mental health refers to the emotional and psychological well-being of transgender person individuals without pathologizing them for being transgender. In this study, mental health was assessed with the use of measures of four mental disorders found by researchers to be the most prevalent among LGBTs: depression (Haraldsen & Dahl, 2000); suicidality (Clements-Nolle et al., 2001); substance abuse (Nuttbrock, Rosenblum, & Blumenstein, 2002); and anxiety (Pauly, 1993).

Minority stress: Psychosocial stress derived from minority status (Brooks, 1981). Minority stress theory is derived from studies on environmental factors, which, when considered with family, twin, and adoption studies of behavioral geneticists provided evidence that stress is a factor in psychopathology (Dohrenwend, 1998; Lewis, Derlega, Clarke, & Kuang, 2006; Lewis, Derlega, Griffin, & Krowinski, 2003; Herrell et al., 1997; Meyer, 1995, 2003). Minority stressors are conceptualized in this study as internalized transphobia, stigma, and actual experiences of physical violence, verbal abuse, and discrimination.

Internalized homophobia: Meyer and Dean (1998) defined this term as a "gay person's direction of negative social attitudes toward the self" (p. 161). For many LGB people, internalized homophobia is experienced as isolation, shame, humiliation, confusion, and feelings of illegitimacy (Ochs, 2005), which can lead to the individual's internal denial of their sexual orientation (Frost & Meyer, 2009). Herek, Gillis, and Cogan (2009) further characterized internalized homophobia as self-stigma, or "self directed prejudice, which is based on the individual's acceptance of and agreement with society's negative evaluation of homosexuality" (p. 33). Clinical reports have described associations with internalized homophobia, such as lower self-esteem, psychological

distress, increase in depressive symptoms, and relationship problems including domestic/partner aggression (Cabaj, 1988; Frost & Meyer, 2009; Herek, 1996; Szymanski & Gupta, 2009). Many theorists believe internalized homophobia is common among LGB people during the coming out process, and to a degree, over the lifespan (Frost & Meyer, 2009; Herek, 1996; Kahn, 1991; Ross & Rosser, 1996). Researchers and clinicians have agreed that addressing and resolving internalized homophobia is crucial to building improved self-esteem (Fingerhut, Peplau, & Ghavami, 2005; Rosser, Bockting, Ross, Miner, & Coleman, 2008; Troiden, 1979).

Many researchers are now using the term "*internalized homo-negativity* " to emphasize negative perceptions rather than the term "internalized homophobia" which emphasizes the "irrational fear of homosexuality" (Cox, Dewaele, Van Houtte, & Vincke, 2011 (p.117); Currie, Cunningham & Findlay, 2004 (p. 1053); Mayfield, 2001 (p. 53); Ross et al., 2010 (p. 1207); Ross, Rosser, & Neumaier, 2008 (p. 547)). In this study, however, I used the traditional term of "internalized homophobia" and incorporated the meaning of the term "internalized homo-negativity". Similarly, I used the term "internalized transphobia" and includes the meaning of the term "internalized transnegativity".

Internalized transphobia: The directing of society's negative attitudes toward transgender individuals toward the self (Sugano et al., 2006). Sugano et al., 2006 defined transphobia as "societal discrimination and stigmatization of persons who do not conform to traditional notions of sex and gender" (p. 217). Sugano et al. stated the concept of transphobia is similar to the concept of homophobia. They further stated that the experiences of discrimination, violence, harassment, and barriers to health care are where

transphobia manifests itself – and that these experiences are analogous to those of homophobia. Shidlo (1994) conceptualized internalized homophobia as negative feelings or self-hatred resulting from a social environment that devalues and denigrates non-heterosexuals. Similarly, Rosser et al. (2008) used the term "internalized homo-negativity" to describe "negative perceptions of homosexuality internalized by persons with a same sex orientation" (p. 188).

Compared to the concept of internalized homophobia, very little has been written on internalized transphobia. Thus, by analogy, a transgender individual's internalization of fear and hatred toward transgender persons is experienced as negative self-worth, and is similar to a gay or bisexual person's internalization of societal fear and negativity toward LGB people. Many researchers have contended internalized homophobia is a principal factor impinging upon LGB mental and sexual health (Cabaj, 1996; Frost & Meyer, 2009; Herek, 1996; Ochs, 2005; Rosser et al., 2008; Szymanski et al., 2001). Again, by analogy, I considered internalized transphobia as a potential principal factor impacting transgender mental and sexual health in this study.

Internalized biphobia : The meaning of this term overlaps with internalized homophobia (Ochs, 2005), sharing its characteristics of directing negative social attitudes toward the self and similar coming out issues. Many bisexual people experience additional pain from rejection by both gay men and lesbians and heterosexuals.

Stigma: The result of a process of labeling of human differences, stereotyping and ascribing undesirable characteristics, and the exercise of power to discriminate (Link & Phelan, 2001, 2006). Stigma consciousness (Pinel, 1999) is defined by Lewis, Derlega,

Clarke and Kuang (2006) as "the expectation of prejudice and discrimination . . . associated with negative psychological outcomes" for sexual minorities (p. 48).

Discrimination: The perception of being rejected or denied opportunities (i.e., access to employment, health care, housing, education, recreation) based on sexual orientation (Zakalik and Wei, 2006).

Verbal abuse: Incidents of verbal assaults or intimidation against persons for being transgender (D'Augelli,1989; and Lombardi, Wilchins, Priesing, and Malouf, 2001). As reported by the National Coalition of Anti-Violence Programs (2007), incidences of verbal abuse may be classified as anti-LGBT hate-crimes or LGBT domestic abuse.

Physical violence: Physical attack upon a person for being transgender (Kidd & Witten, 2007/2008; Lombardi et al., 2001). As reported by the National Coalition of Anti-Violence Programs (2007), incidences of physical violence are considered hate-crimes, and these crimes may be defined as stranger/public anti-LGBTQ hate-crimes or LGBT domestic violence.

Assumptions and Limitations

In this study I assumed accuracy in subject selection based on honesty in the demographic self-report which asked for confirmation that the subject was actually a transgender person who had been living in the gender opposite of their natal biological gender. Another potential limitation, common to research utilizing self-report measures, was the degree of accuracy and honesty of the participants. Variables that may potentially challenge the validity of results are sample size and a narrower range of subjects than the general transgender population due to sampling locations, the use of measures modified

for but not validated for use with the transgender population, and the potential bias of results due to convenience (volunteer) sampling. Generalizability of the conclusions drawn is limited to the study sample and to individuals demographically similar to the sample.

Significance of the Study

The results of this study contributed to the literature on the transgender population. Specifically, the findings of this study provided an examination of previously unmeasured variables for this population – minority stress and mental health. The study findings may inform mental health professionals about their transgender clients or better prepare them for providing services for future transgender clients. The results of this study may also contribute to a better understanding of transgender individuals and the development of more accurate assessment procedures, case conceptualization, treatment planning, and intervention. With more information provided by empirical research, there is likely to be less confusion, misunderstanding, and discrimination exhibited among care-providing professionals toward transgender clients.

Summary and Transition Statement

Like other minority groups who are identified by sexual orientation, racial identity, or ethnicity, transgender persons are exposed to psychological and social stress related to their minority status. Minority stress is a concept "based on the premise that members of minority groups are subjected to chronic stress related to their stigmatization" (Meyer, 1995, p. 38). Brooks (1981), Dohrenwend (2000), and Meyer (1995) propose that such stress leads to adverse mental health outcomes. Poor health care is often cited as a source of stress and avoidance for minority sexual-orientation

populations (Belongia & Witten, 2006; Bockting, Robinson, & Rosser, 1998; Newfield, Hart, Dibble, & Koheler, 2006). For gender-identity minorities, poor health care is exacerbated by extremely negative societal attitudes toward these individuals (Poteat, German, & Kerrigan, 2013); Shires & Jaffee, 2015). Because the transgender population is an underserved population who are not well understood and who report poor acceptance by professionals, their medical and mental health problems often go untreated (Newfield, et al., 2006). This situation leads not only to more suffering by individuals, but also to increased social problems such as disease, homelessness, unemployment, and substance abuse. Because of the small population size and the difficulties recruiting an adequate number of research subjects, there are no standardized assessment instruments for transgender clients.

In Chapter 2, the literature review, I will present an introduction covering the current status and an historical overview of the psychological literature, and a section on transgender-specific models of treatment care. The topics of gender, stress, minority stress and mental health, stigma, transphobia/internalized transphobia, discrimination, violence, and verbal abuse will be discussed in terms of their definitions, the various approaches to their study within psychology, and corresponding models, and theories and their relationship to minority stress and mental health for the transgender population. In the conclusions section I will present an evaluation of the current status of psychological literature on minority stress and mental health of transgender persons and discuss gaps in the literature, followed by suggestions to improve and increase work with the transgender population.

In Chapter 3, the research methodology section, I will describe the logistics and justification for the research design and the approach to the study. A description of the instruments, data collection tools, and the rationale for instrument selection will be provided. There will also be a detailed description of the population from which the sample was drawn, the characteristics of the participants, and the eligibility criteria for selection. The size of the sample, power level and effect size will be given and defended. I will also present the statistical methods and software programs used to perform the data analysis. Demonstration of adherence to APA ethical guidelines for collection of data, retention and reporting of data, and the ethical protection of participants will also be provided.

In Chapter 4, the result section, I will speak to the research questions and hypotheses of the study and report and address the related findings. In the data analysis I will present a commentary on the observed results and provide interpretations and possible alternative interpretations. A summary will follow, including an interpretation related to the importance of the findings with regard to the research questions.

In Chapter 5, the study summary, I will present an overview of the study, review the research questions, and present a brief summary of the results and the interpretation. The significance of the study in terms of its implications for social change will be discussed, referring to benefits to individuals and the broader community and its institutions. The chapter will also contain recommendations for the use of the results and conclusions of the study and recommendations for further study on relevant topics. I will conclude the study with closing remarks where I make a statement on the importance of the study and its topic.

Chapter 2: Literature Review

Introduction

Transgender studies is a new area of gender research in the social sciences, evolving in the 1990s from studies on related topics of transsexualism; transvestism; GID; sex reassignment; sexual minorities (intersex, genetic); sexual orientation minorities; and studies on populations at risk for HIV infection and transmission (Denny, 2004; Meyer, 2003; Pflum, Testa, Balsam, Goldblum, & Bongar, 2015; Reback & Lombardi, 2001). Researchers over the last decade or so have begun to examine the relationship between minority stress and mental health, upon a background of abundant research on the biological effects of stress based upon both animal and human models (Dohrenwend, 2000; Meyer, 1995). Social stress has been identified as one of several major factors contributing to mental health risks for LGBT people (Meyer, 1995; Nemoto et al., 2004).

In this literature review, I will illuminate both the progress and absence of progress in research on gender identity variance, minority stress, and their relationship to minority mental health status among transgender persons. I will establish the need for continued research by analyzing the empirical literature across topics on each variable, highlighting the development of theories and methodology. Finally, I will address the difficulties researchers have described when conducting research with the transgender population.

The theoretical framework I used in this study was composed from (a) the biopsychosocial approach within clinical psychology which finds stress to be an important factor in the occurrence of psychopathology, such as depression, suicide,

anxiety, and substance abuse (Melchert, 2007); (b) positive psychology emphasizing the deconstruction of the illness model of the *DSM*, human strengths, resilience in development, and the adaptive potential of coping – attributes salient within narratives of gender minority individuals (Baumgardner, 2009; Lopez & Snyder, 2004; Maddux, 2008); and (c) the minority stress model, which hypothesizes that environmental adversity (stigma, violence/ discrimination) causes psychological stress (Meyer, 1995, 2003).

I found empirical research in the area of LGBT minority stress and psychopathology in peer-reviewed journals located through digital searches of electronic psychology, medical, and university library databases. A literature search of peer-reviewed articles in PsycInfo, Psych Abstracts, and Medline reported 269 articles with "transgender" in the title, 27 articles on "transgender and mental health", and 2 articles on "transgender and stress". A journal entitled "The International Journal of Transgenderism" was published from 1997-2002 and from 2005-2006, and includes articles from psychology and other academic disciplines. A search of peer-reviewed articles with "transsexual" in the title found 533 articles; 244 of these were from MEDLINE, primarily addressing medical issues related to transitioning. In this chapter, I will provide a review of the psychological research and the development of theories and concepts about the transgender population as well as a review of literature on minority stress, stigma, discrimination, violence/verbal abuse, internalized transphobia, depression and suicide, anxiety, and substance abuse as they relate to transgender or LGB mental health. When little or no literature was available for the transgender population, I drew parallels for conjecture.

Overview of Transgender Research, Theories, and Concepts

European and American Scientific Research, 19th–21st Century

A brief overview of the history of scientific research on gender identity diversity and its pioneers will provide a useful background to understanding the development of current definitions of transgenderism, cross-dressing (transvestism), and transsexualism. In this subsection, I will present a summary of the accomplishments by the major researchers from 19th century Europe to the current decade. Rudacille (2005) and Meyerowitz (2002) have made significant contributions by publishing books on the history of the development and growth of the treatment of transsexual persons.

Carl von Westphal, a professor of psychiatry at Berlin, according to Bullough & Bullough's (1993) historical account, was the first to formally publish cases of cross-dressing, calling the phenomenon "contrary sexual feeling" (p. 204). Gender identity and sexual orientation were not understood as different phenomena by early psychiatrists (Rudacille, 2005). These categories remained confounded until the past few decades when researchers and clinicians defined them accurately, although they are still confounded by many professionals (Ferris, 2006).

German Sexologist Magnus Hirschfeld published the first scientific study of gender variance in 1910 from case studies of transvestites (Bullough & Bullough, 1993). Hirschfeld created the term "transvestite" to describe people who had the urge to dress in clothes of the opposite gender and was the first to note transvestites were those whose gender identity was congruent with their biological sex (Bullough & Bullough, 1993). Prior to Hirschfeld, transvestites were believed to be a type of homosexual – a new category itself around the turn of the century (Bullough & Bullough, 1993).

European and American endocrinologists' experiments on animals in the early 1900s demonstrated animals could be masculinized or feminized by through surgical grafting of gonads (Meyerowitz, 2002). Research on animals led directly to research on human subjects. In practice with humans, Eugene Steinach surgically and hormonally altered "inverts" attempting to cure homosexuality (Meyerowitz, 2002). The first well-recorded cases of surgical transition for transsexuals were written in the 1930s at the Hirschfeld Institute in Berlin, the first institute for the study of sexual science (Rudacille, 2005). Research on male and female hormones by Steinach, Edgar Allen, and Edward Doisy led to the isolation of the substance known as estrogen (Rudacille, 2005).

American physicians did not significantly address the science of sex change until after World War II. Dr. David Cauldwell in 1949 first used the word "transsexual" to describe people who wanted to change their sex (Meyerowitz, 2002). The term was publicized by Dr. Harry Benjamin, whose clinical experience with transvestites and transsexuals made him a professional authority in the debate that ensued among American physicians on the merits of sex change surgery (Rudacille, 2005). Gradually, a shift in focus from the biological concept of sex to the social concept of "gender" led to a consideration of the psychological aspects of gender identity (Rudacille, 2005). As the understanding of adult gender identity grew among American physicians, more physicians endorsed and performed SRS (Rudacille, 2005).

In 1948, Murray L. Barr, a Canadian geneticist, discovered small dark bodies, "*Barr bodies*", in biopsies of mammalian skin tissue, a discovery for which he received a Nobel Prize (Rudacille, 2005). Barr's discovery led to sex chromatin typing, the new science of cytogenetics, and a new method to determine sex (Rudacille, 2005). Intersex

people and gender-variant people were among the first to undergo genetic testing (Rudacille, 2005). Some were found to have genetic anomalies while others were found to have none (Rudacille, 2005). Sex reassignment surgery evolved from the European experiments on laboratory animals, but according to Meyerowitz (2002) was not generally accepted as ethical for humans in the United States until the late 1960s. The famous sex change case of Christine Jorgenson in 1950 revolutionized the debate on gender identity and the mutability of biological sex characteristics (Meyerowitz (2002).

Pioneer Dr. Harry Benjamin brought European sexology to America in 1913 (Rudacille, 2005). Benjamin began seeing patients for endocrinological consultation related to gender in San Francisco in the 1930s (Rudacille, 2005). He later worked with Alfred Kinsey on his sex research, encountering a number of transsexual people and transvestites among his assigned research subjects (Rudacille, 2005). Few physicians had an interest in working with transsexual patients, so they referred their patients to Benjamin (Rudacille, 2005. Benjamin monitored their hormones and developed assessment criteria to guide treatment (Rudacille, 2005). Benjamin (1966) is credited with distinguishing transvestism and transsexuality as different clinical phenomena. He states in his book *The Transsexual Phenomenon*:

> The transsexual (TS) male or female is deeply unhappy as a member of the sex (or gender) to which he or she was assigned by the anatomical structure of the body, particularly the genitals. To avoid misunderstanding: this has nothing to do with hermaphroditism. The transsexual is physically normal (though occasionally underdeveloped). These persons can somewhat appease their unhappiness by dressing in the clothes of the opposite sex, that is to say, by cross-dressing, and

> they are, therefore transvestites too. But while "dressing" would satisfy the true transvestite (who is content with his morphological sex), it is only incidental and not more than a partial or a temporary help to the transsexual. True transsexuals feel that they belong to the other sex, not only to appear as such. For them, their sex organs, the primary (testes) as well as the secondary (penis and others), are disgusting deformities that must be changed by the surgeon's knife. This attitude appears to be the chief differential diagnostic point between the two syndromes (sets of symptoms) – that is, those of transvestism and transsexualism. (p. 12)

After World War II, psychological explanations of transsexuality grew as psychiatry and psychology gained in prominence and authority (Meyerowitz, 2002). In the 1950's David Cauldwell (1950), an American pioneer sexologist, articulated the first theory to separate biological gender from psychological gender identity. Cauldwell viewed psychological gender identity to be determined by social conditioning, thus he regarded SRS as an unacceptable treatment for transsexuals. Instead, he advocated that transsexualism be treated as a mental disorder. According to Meyerowitz (2002) and Rudacille (2005), the psychoanalytic zeitgeist of the times combined with technological developments led to the use of extreme treatments, such as psychosurgery and electroconvulsive shock (ECT). Since the psychoanalytic zeitgeist of the times dictated the view of separate biological sexes, transvestism and transsexuality were considered psychological, not biological conditions (Rudacille, 2005). The biological vs. psychological debate continued with the American medical establishment denouncing SRS (Meyerowitz, 2002).

John Money, a psychoendocrinologist at Johns Hopkins Hospital, studied mental and behavioral changes of hormone treatment with intersex patients and rejected the dichotomous view of sex as either male or female (Meyerowitz, 2002). In contrast, he identified five prenatal deterministic variables of sex – chromosomal, gonadal, internal and external morphologic sex, and hormonal sex, a sixth postnatal determinant – the sex of assignment and rearing, and a seventh variable previously unrecognized in scientific and medical discussions – gender role (Money & Ehrhardt, 1972). Money initially defined the term "*gender role*" as a term to signify (a) the private visualization of an individual's own gender and (b) all the things a person says or does publicly to manifest his or her gender social status - girl or woman, boy or man. Money, Hampson, and Hampson (1955a) expanded his definition of gender role to include recreational interests, spontaneous conversation topics, responses on projective tests, play preferences, and responses to direct inquiry. Money was later criticized by intersex activists for supporting physicians who had authority to assign gender with surgery (Chase, 1994; Dreger, 2003; Koyama, 2003). Money's view was that the sex of assignment at birth and child rearing are the deciding factors in the formation of gender identity (Money, Hampson, & Hampson, 1955b).

Medical research progressed rapidly after World War II. Physicians and scientists who studied transsexuality worked collaboratively in the area of surgery and on the issues of changing sex (Meyerowitz, 2002). The central figures were Karl Bowman in San Francisco's Langley Porter Clinic; Elmer Belt and colleagues at UCLA's urological clinic; Alfred Kinsey; Paul Gebhard, and Wardell Pomeroy in Bloomington, Indiana, who collected data on transvestites and transsexuals; and Harry Benjamin, Albert Ellis, and

psychiatrist Robert Laidlaw in New York, who worked together on the psychological issues of sex change and made referrals to lawyer Robert Sherwin on the legal issues of changing sex (Meyerowitz, 2002). The first American hospital to perform SRS was Johns Hopkins at their gender identity clinic founded in the 1960s by Money and Benjamin, who convinced reluctant physicians to begin performing SRS at the clinic for intersex and transsexual people (Meyerowitz, 2002; Rudacille, 2005). For the remainder of his career, Money promoted the view that a person's psychosexual well-being depended on the development of a core sense of identity as either a man or a woman, which depended largely upon the way that an individual was perceived and regarded by parents, family, and others during the first few years of life (Meyerowitz, 2002).

Money and his colleagues recommended surgical reconstruction of the genitals to correct morphological anomalies as early as possible to conform the child's anatomy to the sex/gender assigned at birth (Meyerowitz, 2002). As his theories became accepted, reconstructive surgery in infancy and early childhood became the standard practice by the mid-1960s, reinforcing a male-female binary view of gender, as infants at birth are assigned as male or female (Meyerowitz, 2002)). Money's views on the need for reconstructive surgery remained unchallenged until the 1990s when intersex adults began to advocate against medical policies of routine surgical sex assignment (Chase, 1994; Dreger, 2003; Koyama, 2003).

Diamond and Sigmundson (1997) published an article that contradicted Money's theories and questioned his credibility as a researcher. Diamond had a 30-year career working in endocrinology laboratories experimenting on animals and working with human intersex patients, arriving at the conclusion that humans are not psychosexually

neutral at birth, as Money attempted to prove, but are born with a biological/ endocrinological predisposition whose expression is strongly influenced by social factors (Diamond & Sigmundson (1997). Money believed that sex assignment at birth, a critical period of about one year after birth when it is possible to influence gender hormonally, and child rearing are the key determinants to the formation of gender identity (Money, 1995). Diamond believed all behavior has a biological root, that some behaviors are more biologically oriented than others, and that behavior is subject to the influence of social and cultural factors (Diamond, 1997). Money (1995) later modified his opinion to give more weight to biological determinants of gender identity and to more interaction between biological and social factors than his long-held nature vs. nurture position.

According to Meyerowitz (2002), the 1960s was a time of expansion of interest in and awareness of transsexual people. The Erickson Education Foundation (EEF) was founded by wealthy FtM transsexual, Reed Erikson, to fund research and scholarly activities on transsexuality and was instrumental in raising public awareness of transsexual people (Devor, 2004; Rudacille, 2005). The EEF provided grant money to Harry Benjamin, funded symposia, and publications (Meyerowitz ,2002).

Psychiatrist Dr. Robert Stoller, who established a Gender Identity Research Clinic at the University of California in Los Angeles and colleague Ralph Greenson, further refined the concept of gender (Meyerowitz, 2002). They focused on the gender identity of children and differentiated gender identity from sexuality by their use of the term “gender identity” to refer to a person’s subjective sense of being a member of a specific sex, and “gender role” to refer to the behaviors associated with being masculine or feminine (Meyerowitz, 2002). Stoller (1968), a psychoanalyst, developed a model that utilized

more of a psychological, and less of a biological explanation of gender identity in transsexuals than Money's model. Harry Benjamin (1966) created a six-point scale of transsexuality modeled on Alfred Kinsey's continuum of sexual orientation. The scale ranged from the category of sporadic cross-dressing to high intensity transsexuals who had the desire to change their sex. By the end of the 1960's, gender identity was the dominant concept in explanations of transsexuality (Meyerowitz, 2002). Doctors debated the boundaries of transsexualism, as they continued to pathologize transsexuals, albeit in the service of justifying medical treatment and SRS (Meyerowitz ,2002). By the late 1960's, transsexualism was widely publicized in mainstream American culture Meyerowitz, 2002).

Social change, such as the advent of Feminism and the sexual revolution in the following decade had an impact on the concept of gender (Meyerowitz, 2002). A new view emerged purporting strict gender roles were not natural and not worth sustaining (Meyerowitz, 2002). Research developed that focused on the social construction of masculinity and femininity, suggesting that the artifice of gender roles assigned women to a secondary social and political status (Meyerowitz, 2002). Bem (1976) examined and measured masculine and feminine sex roles, analyzing society's defined traits of masculinity and femininity resulting in the development of gender schema theory. A taxonomic revolution began among doctors and transsexuals who worked together to distinguish gender and sexual variations (Meyerowitz, 2002). Doctors had a need to refine the process of differential diagnosis to improve assessment among transvestites, homosexuals, and transsexuals, particularly for those seeking SRS (Meyerowitz, 2002).

Disagreement over etiology led to conflicts between those physicians who advocated preventative psychotherapeutic treatment in early childhood, and those who advocated for surgical intervention in adulthood (Meyerowitz, 2002). Follow-up reports conducted on patients who had SRS suggested most patients experienced better adjustment and greater satisfaction from SRS (Money, 1995). Given positive data, more doctors began to endorse SRS (Meyerowitz). According to Meyerowitz (2002), most self-identified transsexuals preferred medical treatment (SRS) over psychological treatment, which categorized them with a mental illness and prescribed psychotherapy. New Gender Identity clinics at universities and hospitals began to open to provide SRS services; however, many physicians resisted and objected to the practice on ethical and moral grounds (Money, 1995).

In an interview with Deborah Rudacille in 2003, Paul McHugh describes his involvement in 1975 as Chief Psychiatrist at the Johns Hopkins Clinic "The surgeons were saying to me 'Imagine what it's like to get up in the morning and come in and hack away at perfectly normal organs because you psychiatrists don't know what to do with these people'." (Rudacille, 2005, p. 135). The Gender Identity Clinic at Johns Hopkins University Hospital was shut down later that year based on conclusion that SRS did not resolve patients' psychological problems in terms of social rehabilitation, defined by the hospital as employment and relationship stability (Rudacille, 2005). Meyer and Reter (1979) conducted a follow up study that showed patients who had SRS did not score any higher on an objective measure of adjustment than patients who remained non-op. The conclusion was SRS offers no objective advantage in terms of adjustment. The follow up study had a profound impact on clinics providing SRS. Shortly after the Johns Hopkins

clinic closed in 1979, other universities closed their clinics, ending almost all university-based clinical research on transsexuality (Rudacille, 2005).

HIV and Research on Transgender Issues

Until the late 1960s, research literature on transsexuals was focused on medical topics about SRS (Peterkin & Risdon, 2003). Few researchers were interested in transsexuals prior to the AIDS crisis in the 1980s (Peterkin & Risdon, 2003). During the decade of the 1980s, the primary issue among the LGBT population was the onset of the HIV/AIDS health crisis (Peterkin & Risdon, 2003). Efforts by researchers, communities, and policymakers on HIV prevalence and prevention required definition and categorization of high-risk groups (Peterkin & Risdon, 2003). Transsexuals were not accepted as part of the LGB community (Peterkin & Risdon, 2003). They often came under attack by the gay movement which celebrated masculinity, and were overtly rejected by women's movement for their appearance as "subordinated" women and those who brought male privilege with them even when they lived as women (Peterkin & Risdon, 2003).

The contemporary transgender movement began in 1990, when transsexual activists challenged the mainstream vision and traditional theories of gender, sex and sexuality (Meyerowitz, 2002). Until the very late 1980s - early 1990s, when activists demanded to be heard, there was very little organized advocacy for transsexual health research, education and outreach (Meyerowitz, 2002). Transsexuals as a population began to receive attention by being included in HIV/AIDS research (Peterkin & Risdon, 2003). Psychological literature on the transgender population began to grow.

The development of transgender-specific HIV prevention programs also began to grow based on reports of high incidence of HIV infection within MtF subgroups of the transgender population (Bockting & Kirk, 2001). From this research, descriptive data on transgender population demographics, risk behaviors, health and mental health status, became available to researchers. Despite the alarming prevalence reports, there was virtually no research on the AIDS epidemic and its impact on the transgender community until prevention programs began to be funded by grants from the American Foundation for AIDS Research (Bockting & Kirk, 2001). In 1992, Walter Bockting at the University of Minnesota Program in Human Sexuality developed one of the first transgender-specific HIV prevention programs, sparking a series of needs assessment studies in major U.S. cities (Bockting & Kirk, 2001). From this prevention research emerged a network of researchers, service providers, and community leaders engaged in transgender-specific HIV prevention efforts (Bockting & Kirk, 2001).

In 1995, a lesbian and gay health conference on AIDS/HIV included a transgender working group, which drew national and international attention to the inadequate prevention and intervention in transgender communities despite the higher risk for HIV transmission among MtF transsexuals (Mail & Lear, 2006). Transgender activists challenged conventional binary categories of sex, gender, and sexual orientation (Mail & Lear (2006). Kammerer, Mason, Connors, and Durkee (2001b) report activist-supported service groups and professional organizations such as The Harry Benjamin International Gender Dysphoria Association and Boston's Gender Identity Support Services for Transgenders formed task forces to conduct multisite research among gender clinics and surgeons who provided SRS. As scholarly activity increased, international

studies conducted in the United States, Canada, Thailand, Belgium, Finland, Sweden, Switzerland, China, The Netherlands, Turkey, England, Italy and Germany contributed more information to the scientific database (Kammerer, Mason, Connors, and Durkee, 2001b).

Cross-cultural topics from peer-reviewed publications encompass medical studies on primary medical care, surgical and pharmacological treatments; legal issues of transgender persons; sociological studies on the interface of race, culture, poststructuralism and gender identity; psychological studies on a myriad of topics (epidemiology, a broad range of mental health topics, psychoanalysis, clinician training, ethical issues, child and adolescent population); legal issues; educational issues; political issues; and topics in cultural anthropology. Several peer-reviewed journals dedicated to the publication of research on transgender issues were founded. *The International Journal of Transgenderism (IJT)* was founded in 1997 to publish scholarly work in the area of transgenderism from various disciplines. *IJT* uses the term "transgender" as an umbrella term to encompass the vast complexity and manifestation of gender identity in all variations of cultural contexts. The articles in *IJT* can often be found co-published in other professional journals.

Since 1999, *IJT* has been the official peer-reviewed journal of The Harry Benjamin International Gender Dysphoria Association (HBIGDA), now known as *The World Professional Association for Transgender Health (WPATH).* WPATH has been a long standing association committed to the advancement of knowledge in the area of gender dysphoria, improvement in medical and psychological treatment of transgender individuals, advocacy for social and legal acceptance of treatment (hormones, SRS), and

commitment to professional and public education on transgenderism. *The Journal of Homosexuality* from time to time publishes articles on LGBT topics, some of which may be duplicated into separate books, for example, *Current Issues in Lesbian, Gay, Bisexual and Transgender Health* (Harcourt, 2006). The study of transgenderism is rapidly expanding in both quantity and range. Interdisciplinary and intercultural perspectives from psychological, sociological, anthropological, historical, and biomedical fields contribute to better understanding through the expansion of sociocultural and political frames of reference. Increased research has resulted in the development of treatment models enabling professionals to provide better care for their transgender clients.

Medical and Psychological Models of Transgender Treatment Care

The American Psychiatric Association's *Diagnostic and Statistical Manual*

The *American Psychiatric Association's* (2000) *Diagnostic and Statistical Manual of Mental Disorders ("DSM")* is a categorical classification that separates mental disorders into types based on defining criteria. The *DSM* is used as a diagnostic, educational, and research tool. Often referred to as the "Bible" of psychiatric practice, the *DSM* has taken a biological approach to psychiatric disorders in recent decades (Schwartz, 1999). Schwartz suggests the biological revolution in psychiatry began with evidence of a genetic component to psychiatric disorders and by the success of pharmacological therapies, which increased our understanding of neurochemistry and its relationship to behavior. According to Andreasen and Black (1995), the goal of a biological approach is to understand how disruptions in brain function lead to the development of psychiatric disorders. Nevertheless, the *DSM* states because the

physiological or genetic cause of mental disorders is rarely known, the *DSM* depends on a cluster of symptoms to reach a diagnosis.

The *DSM* is considered an indispensable tool for differential diagnosis and treatment planning (Schwartz, 1999). Schaefer and Wheeler (1995) discussed the importance of differential diagnosis among GID and conditions of transvestism, schizophrenia with gender identity disturbance, homophobic homosexuality, career female impersonators, borderline personality disorder with severe gender identity issues, body dysmorphic disorder, GID – nontranssexual type, atypical gender identity disorder, malingering. Cole, Emory, Boyle, and Meyer (1993) note that although rare, psychosis may coexist with gender identity disorders. Genital self-mutilations, which are also rare, may be misdiagnosed as psychoses. Thorough understanding in the use of the *DSM* is critical for avoiding the serious confounding of gender identity conditions with other major psychiatric symptoms or conditions, for example, Axis I clinical syndromes and Axis II personality disorders and sexual disorders (Schaefer & Wheeler, 1995).

Kutchins and Kirk (1997) detail the 1973 landmark decision to remove the homosexuality diagnostic category from the *DSM-III*. This decision initiated a profound change in the way that society thinks about mental health and disease (Kutchins & Kirk, 1997). Activists within and from outside the psychiatric profession forced the profession to examine its basic assumptions about human sexuality and the way it defined pathology (Kutchins & Kirk, 1997). The DSM is used not only by psychiatrists, but by courts, schools, social service agencies and health insurance companies to make decisions about a wide variety of matters such as child custody, criminal liability, placement in special education classes, and the receipt of social security benefits and health benefits. While

gays and lesbians entered the mainstream, transgender people were left behind, although activists called for the removal of transvestism from the *American Psychiatric Association's* list of mental disorders (Kutchins & Kirk, 1997). Gays and lesbians could stop perceiving themselves as "sick" and could stop seeking psychiatric cures. However, transsexuals still needed not only the services of endocrinologists and surgeons, but also by the late 1970s needed to spend time in therapy to obtain a letter from their therapist recommending hormones or surgery, according to the *Harry Benjamin International Gender Dysphoria Association's ("HBIGDA")* standards of care, which standardized the criteria for diagnosis and treatment.

Kutchins and Kirk (1997), in their analysis of the changes in diagnostic categories in the *DSM-III*, which included the removal of homosexuality, suggest that changes in the practice of psychiatry predisposed the *DSM-III* Task Force to include new diagnostic categories. The moving of psychiatric practice from hospital into outpatient settings, practitioners seeing a broader range of problems, and the requirement of a diagnosis for third-party insurance are significant factors accounting for the sudden increase in diagnostic categories in the *DSM* (Kutchins & Kirk, 1997). In 1980 transsexualism first appeared in the *DSM-I* as a diagnostic category distinct from transvestic fetishism (cross-dressing for the purpose of sexual excitement) (Zucker & Spitzer, 2005). The diagnosis was based on the concept of gender dysphoria, developed by researchers at Stanford School of Medicine Gender Identity Clinic who observed that many of their patients did not fit the profile of the *DSM-III's* definition of transsexualism. Through their experience in support groups with their clinic patients Stanford researchers developed more

expansive criteria that were less rigid and more realistic than the DSM criteria (Kutchins & Kirk, 1997).

In 1987, the *DSM-III-R* included a third, more expansive category of "Gender Identity Disorder of Adolescence or Adulthood, Non-Transsexual Type ("GIDAANT")." GIDAANT is differentiated from Transvestic Fetishism in that the cross-dressing is not for the purpose of sexual excitement; GIDAANT is differentiated from transsexualism in that there is no persistent preoccupation with eliminating a person's biological sex characteristics and acquiring the physical characteristics of the other biological gender for at least two years (3rd ed., rev.; DSM-III-R; American Psychiatric Association, 1987). Because the *DSM-III-R* criteria restricted meaningful descriptions of a patient's gender dysphoric condition, the *DSM-IV* work group refined the criteria (American Psychiatric Association, 1994).

In 1994, the diagnosis of transsexualism was deleted from the *DSM-IV* by combining its criteria with those of GID of childhood and GID of Adolescence or Adulthood (the criteria are the same). The *DSM-IV* includes the creation of a single broad category of gender identity disorders, a description of the clinical syndrome of gender dysphoria, and clarification of the relationship between gender identity and sexual orientation (American Psychiatric Association, 1994). This is the diagnosis most frequently assigned to children and adults who do not conform to socially accepted norms of female and male identity and behavior (Kutchins & Kirk, 1997). The expressed desire for surgery became just one of a number of criteria considered when making a diagnosis (Kutchins & Kirk, 1997). The question remained about whether the "distress and impairment" experienced by gender-variant persons is due to the disorder itself or

whether they are a consequence of harassment, discrimination, and social ostracism perpetrated upon gender-variant persons (Kutchins & Kirk, 1997). Kutchins and Kirk (1997) point out the difficulty in distinguishing an internal mental disorder from a patient's reaction to external environmental stressors. The purpose of this dissertation is to investigate the relationship between minority environmental stress and its impact on mental health within a transsexual sample of the transgender population.

The *DSM* is used in clinical settings where a transgender person may go to seek help for issues, which may be related or not related to gender issues (Kutchins & Kirk, 1997). Those transgender individuals who desire hormones and surgery must have a diagnosis in order to obtain the treatment (Budge, 2015). Transgender individuals commonly meet the criteria for GID at some point in their transitioning. GID is a highly disputed term since it labels the phenomenon of transsexualism as a mental disorder (Carroll, Gilroy, & Ryan, 2002). GID is coded by the *DSM* based on current age (American Psychiatric Association, 1994). There are different codes for Children and for Adolescents or Adults (American Psychiatric Association, 1994). There are specifiers for sexual orientation of sexually mature individuals – attracted to Males, Females, Both or Neither (American Psychiatric Association, 1994).

The *DSM-IV* states there is no diagnostic test specific for GID; transgender individuals are usually identified by self-report. In the *DSM-IV*, which is used primarily in North America, *Gender Identity Disorder in (Adolescents or) Adults* (302.85) is a Subcategory under the Category of Sexual Disorders. The Subcategory has four criteria:

1. A strong and persistent cross-gender identification;

2. Persistent discomfort with their assigned natal sex and its associated gender role;
3. Absence of any physical intersex condition;
4. Clinically significant distress or impairment of social or occupational functioning. (p. 538)

The fourth criterion addresses the psychosocial issues in GID, which are known to be far more complex than the medical treatment issues (Bockting, Knudson, & Goldberg, 2006). Psychotherapy is essential to help the client adjust to the rigid social stereotypes and to accept their internal identity (Bockting, Knudson, & Goldberg, 2006). There are many transgender-specific mental health issues within the heterogeneous transgender population (Bockting, Knudson, & Goldberg, 2006). For every diagnosis in *DSM-IV*, the symptoms by which the person meets the criteria threshold must cause present distress or disability, i.e., impairment in one or more important areas of functioning (American Psychiatric Association, 1994). In addition, according to the *DSM-IV Guidebook* (Frances, First, & Pincus, 1995), the symptoms must be considered the manifestation of a behavioral, psychological, or biological dysfunction in the individual and not an expected or culturally sanctioned response to a particular event. There is criticism of the *DSM's* inclusion of GID as a mental disorder (Drescher, 2010; Zucker, et al., 2013).

In addition to the decades of general criticism about the *DSM's* concept of a mental disorder, i.e., the unreliability of diagnoses, the *DSM* as a method of social control over undesirables, there is specific criticism of the *DSM's* inclusion of and definitions within the GID category (Drescher, 2010; Zucker, et al., 2013). David Seil (2004) criticizes the *DSM* for not distinguishing between the genotype and phenotype of gender

in its presentation of GID. The *DSM* assumes the sex genotype is XX or XY and the phenotypic sex characteristics at birth are concordant with the chromosomal gender, not taking into consideration the fact that genital appearance does not always follow chromosomal gender (Seil, 2004). Seil criticizes the *DSM* for adhering to the dichotomous concept of binary gender roles in its criteria. Society endorses certain gender roles and behavior that are expected even as soon as the anatomic gender of the fetus is known (Seil, 2004). However, gender identity at birth is an unknown factor, but plays an important role in the child's life (Seil, 2004). When an individual's gender identity does not match their anatomic sex and discomfort follows, gender dysphoria presents, and if persistent, is known as GID (Seil, 2004).

International Classification of Diseases (ICD-10)

The World Health Organization's ICD-10 now has three diagnoses for gender identity disorders: Transsexualism, Dual-role Transvestism, and Gender Identity Disorder of Childhood with separate criteria for girls and for boys (Bockting, 2009; Drescher, Cohen-Kettenis, & Winter, 2012). The ICD-10 criteria for transsexualism are similar to the *DSM's* criteria for Gender Identity Disorder (World Health Organization, 1992):

> *Transsexualism* (F64.0) has three criteria:
>
> 1. The desire to live and be accepted as a member of the opposite sex, usually accompanied by the wish to make his or her body as congruent as possible with the preferred sex through surgery and hormone treatment;
> 2. The transsexual identity has been present persistently for at least two years;
> 3. The disorder is not a symptom of another mental disorder or a chromosomal abnormality. (p. 54)

The Transgender Model

The transgender model has had a significant impact on the relationships between mental health professionals and transgender persons (Denny, 2004). Recent transgender literature has been critical of the medical models of psychosexual development of *"transsexuals"* and the treatments for GID. Rosario (2004) identifies one of the most serious criticisms of the medical and psychiatric models: the fact that clients and research subjects falsify self-reports to conform to the psychiatric models to gain access to services. Denny (2004) explains that the transgender model of care was developed from transgender narratives and is far more accurate in its understanding of the population than the orthodox medical and psychiatric models.

Mental health caregivers trained to work with transgender clients no longer believe their transgender clients to be mentally ill and in crisis (Denny, 2004). The transgender model views a client as an individual who is in a process of self-actualization and who is courageously making a life-altering decision (Denny, 2004). Gender programs utilizing the transgender model suggest the purpose of therapy is not expressly to "get the letter" for SRS, but to empower the client to explore and resolve a variety of issues such as concerns about gender and identity, family issues, economic issues, social stress (Denny, 2004).

Bockting and Goldberg (2006) note that as a result of the new transgender model, clinicians are seeing a shift in treatment milieu away from the few academic hospital-based centers to outpatient clinics and private practices. The authors have become aware of an increase in transgender individuals and their significant others seeking assistance from mental health professionals who work in the community rather than in university or

hospital-based gender clinics. Rosario (2004) believes clinicians in all these settings are challenged to understand their transgender client through the interface of many variables – among them - gender identity, race, ethnicity, and sexual orientation. Bockting and Goldberg advocate the training of community-based clinicians in transgender care because transgender individual needs are not well met by a centralized institution-based system. Bockting and Goldberg provide three key guiding principles for clinicians providing mental health services in the community setting: a transgender-affirmative approach, client-centered care, and a commitment to harm reduction. Despite differences among clinicians in their beliefs about theory and treatment protocols (surgery, hormones, psychotherapy), the literature reveals agreement that components of thorough evaluation, building therapeutic rapport, discussing client and clinician goals and expectations, documenting client history and current concerns, and evaluating the client's capacity to make self-care decisions, are key elements of optimal treatment for transgender clients.

The Psychological Model

The psychological model has not been prominent in the care of transgender individuals until lately, as the medical model has long dominated due to the extent of medical issues inherent with SRS (Carroll, Gilroy, & Ryan, 2002). The Standards of Care for a time did not sufficiently address the care of transgender persons who did not desire SRS (Budge, 2015). Chiland (2000), a psychoanalyst, attributes her difficulty in working with transgender patients to a tendency for transgender patients to focus on somatic issues of the body and on securing sex reassignment by hormone and surgical treatments while having little interest in the psychological elements. However, Elkins and King

(1997) report increasing numbers of people who are transitioning are not interested in full SRS. The authors describe this phenomenon as "*gender blending*" or "*nontransitioning transsexuals*". An alternative option (Barlow, 2002) is not taking hormones, relying exclusively on changing one's behavior, mannerisms, and speech, and also changing one's name and the use of his/her pronouns (Wahng, 2002).

There are several models of transgender affirmative practice in psychology. Raj (2002) created a transgender positive and client-centered model that can be utilized for therapy training. This model adapts the SOC, encouraging additional input from health providers who work with the transgender population. The model promotes affiliation between professionals who work with transgender clients and those who have little or no experience, recommending multidisciplinary teamwork to follow and assess the client's treatment. Raj emphasizes the need for culturally competent and transgender-positive clinical work. Lev (2004) proposes a six-stage model of practice that promotes the acquisition of a stable and genuine sense of self and gender identity during transition. The focus of therapy is on accepting the change and loss related to the transition for the client, the client's family, significant others, and friends. There are a number of specific transgender-relevant concerns (Martin & Yonkin, 2006), which should be addressed or not addressed during the rapport-building phase. For example, therapists should elicit a client's feelings about discussing their bodies and sex without asking invasive questions about their surgical status or HRT. When discussing safer sex and there is uncertainty about a client's anatomy, practitioners should use appropriate generic terms, avoiding terms that refer to anatomical sex (Gender Education and Advocacy Inc., 2001).

Psychologists can affirm their practice is transgender positive by adapting the APA Guidelines for Psychological Practice with Transgender and Gender Nonconforming People (American Psychological Association, 2015) for their transgender clients. The APA Ethics Code urges psychologists to maintain a "reasonable" level of awareness of current scientific and professional information, and to undertake efforts to maintain competence in skills. However, this recommendation may not be enough, as training, supervision, education and practice may be inadequate or unavailable to many practitioners (Pilkington & Cantor, 1996). In preparation for the provision of psychotherapy to transgender clients, additional education, training, experience, and supervision may be necessary in such areas as ethnic and cultural factors, the effects of stigmatization, transgender identity development, and unique issues experienced by transgender individuals (Pilkington & Cantor, 1996). The call for research is virtually unanimous among social scientists with an interest in gender identity.

Community Models

There is growth in the number of transgender-specific programs within LGBT community treatment settings across the United States. For example, in New York City The Callen-Lord Community Health Center developed a pioneering program for adults and youth. The program stresses self-determination, the minimization of "*gatekeeping'*, and a close working relationship between client and care provider. The protocol follows the "*do no harm*" model (Douglass & McGowan, 2002) with emphasis on psychoeducation to promote client understanding of the biological and health effects of hormone therapy, and psychotherapy for support. Serious mental health problems receive priority attention.

The Gender Identity Project at New York City's LGBT Community Center is one of many community-based, peer-supported, gender identity programs that have developed in North American cities. This program offers client-centered, multi-disciplinary professional assessment, referrals, counseling, and support groups. The LGBT Center provides services such as sex worker outreach, educational workshops for organizations, schools and social work agencies on transgender issues (LGBT Community Center, 2007).

Treatment Issues

Kirk and Kulkarni (2006), in their discussion of working with transsexual clients in mental health settings, state that many clients perceive clinicians as "gatekeepers" between them and their dream of full transitioning through hormones and surgery. Speer and Parsons (2006), in an investigation of the gatekeeping role of psychiatrists in the United Kingdom, described their role as one of control of access to a range of forms of treatment. Clinicians who work with clients who come to them for treatment (hormones and surgery) report that clients tend to answer interview questions by rote, according to what the "right" answer is to obtain the treatment. Lev (2004) reports many transsexuals do not want to be identified as transsexual for the rest of their lives; their goal is to "pass" as clearly gender-categorized. Roen (2002) reports other transgender individuals reject community pressure to "pass" because it supports the oppressive gender binary system of "either/or" in terms of gender expression.

HBIGDA, now called *World Professional Association for Transgender Health, or "WPATH"* has developed a treatment protocol for GID. WPATH is a worldwide group of caregivers from different disciplines who work with GID clients. This protocol, called the

Standards of Care for Gender Identity Disorders ("SOC"), Seventh Version (2011) was first introduced by Harry Benjamin in 1979. The SOC outlines the time-management of the treatment often referred to as triadic therapy with psychotherapy, real-life living on hormones, and sex reassignment surgery. The treatment goal of the SOC is "lasting personal comfort with the gendered self in order to maximize overall psychological well-being and self-fulfillment" (WPATH, 2011, p.3).

According to WPATH, the initial stage of treatment is a three-month psychological assessment with a qualified and experienced therapist who may confirm a diagnosis of GID and then determine whether the client is prepared to start transitioning. After the evaluation period, the therapist recommends medical evaluation for hormone therapy. Hormone interventions are either reversible or partially reversible, while surgical procedures are irreversible. For those transitioning from natal male to female, estrogen and testosterone blocker are administered by a physician, resulting in feminizing physical changes, such as the development of breasts, changes in the distribution of body fat, skin softening, and subjective changes in mood and libido (Seil, 2004). After a period of the client's expressed satisfaction with the physical and subjective changes, the client will begin to live full-time as a woman (Seil, 2004). Clients usually undergo electrolysis and may elect other cosmetic procedures to change their features to a more feminized appearance (Seil, 2004). After at least one year, the therapist and one other supporting consultant can recommend SRS (Seil, 2004).

As described by Seil (2004), for those transitioning from natal female to male, the protocol is the same. The hormone administered is testosterone, which stops menses, increases muscle and libido, stimulates baldness and acne, the growth of body and facial

hair, and lowers the voice. The client's satisfaction with the subjective changes in mood and aggressiveness are an indication of the likelihood of successful transitioning. After the year of living full-time as a man, the therapist and supporting consultant will recommend whatever surgery is desired by the client (mastectomy, hysterectomy, pseudophallus surgery, phalloplasty). Phalloplasty, known for its numerous medical complications, has not achieved as much success as surgery for those transitioning from male to female (Smith, van Goozen, Kuiper, & Cohen-Kettenis, 2005a). Because of the expense and poor client satisfaction with phalloplasty, FtM clients often adjust their transitioned lives to living without phalloplasty (Seil, 2004). There are other surgical techniques to create a pseudophallus with fewer post-operative medical complications (Smith, van Goozen, Kuiper, & Cohen-Kettenis, 2005a).

For those who desire hormone therapy or surgery, referral letters are required (Seil, 2004). One letter is from the primary mental health specialist if just for hormones, and two letters of concurrence are from a second consultant if the recommendation is for surgery (Seil, 2004). The legal and ethical responsibility for the treatment decision for hormones and/or surgery is shared by the mental health professionals and the physician(s) who perform the treatment (Seil, 2004). Before medical interventions are considered, psychosocial exploration of the individual's psychological status, family and social issues are required (Seil, 2004). SRS outcome studies report a strong positive relationship between (a) thorough pre-operative treatment (hormones, psychotherapy/counseling); (b) candidate selection; (c) a team approach, and treatment success (patient satisfaction and psychosocial adjustment improvement) (Abramowitz, 1986; Lobato, Koff, & Manenti,

2006; Midence & Hargreaves, 1997; Pauly, 1990; Smith, et al., 2005a; Sohn & Bosinski, 2007).

Cohen-Kettenis and van Goozen (2002) report that with adolescents, changes may occur away from gender nonconformity for reasons of family and social pressures. They recommend physicians delay physical interventions for as long as clinically appropriate when working with adolescents. Assessments of postoperative adolescent transsexuals suggest stability in psychological functioning over time, improvement of sexual experience, improvement in social relationships, modest improvement in family relations, and positive overall satisfaction (Lobato et al., 2006; Smith, Cohen, & Cohen-Kettenis, 2002).

According to the SOC, surgical intervention is treatment for adult individuals or for late adolescents with at least one year of real life experience living full time in the desired gender (Colebunders, De Cuypere, & Monstrey, 2015; Coleman, et al., 2011). Genital surgery for biologic males may include orchiectomy, penectomy, clitoroplasty, labiaplasty, and neovaginal creation (Seil, 2004). Many patients will opt for plastic surgery for cosmetic enhancement of face and neck (Seil, 2004). Surgery for biologic females may include mastectomy, hysterectomy, salpingo-oophorectmy, vaginectomy, metoidioplasty, scrotoplasty, urethroplasty, placement of testicular prostheses, or creation of a neophallus (Seil, 2004).

There has been peer-reviewed medical literature published on SRS since the 1960s, with progress evident in the development of surgical techniques over the decades. Jain and Bradbeer (2007) noted that as SRS becomes more common and advanced, health professionals are more likely to see patients with GID in their clinics and practices. In

their review, Sohn and Bosinski, (2007) stated that the best overall SRS results occur with the use of multidisciplinary teams of plastic surgeons, urologist, gynecologist, and experts in sexual medicine found in large volume centers. In large follow-up studies measuring patient satisfaction with health care (de Roche, Rauchfleisch, Noelpp, & Dittmann, 2004; Lawrence, 2003) a team approach is reported to result in the best treatment success. Less satisfaction with SRS results occurs with FtM transsexuals, although one surgical team reported a consistently high level of satisfaction with functional and aesthetic results of genital surgery and a low complication rate (Krueger, Yekani, van Hundt, & Daverio, 2007).

The transgender population appears to be clinically heterogeneous as well as demographically heterogeneous (Carroll, Gilroy, & Ryan, 2002; Colebunders, DeCuypere, & Monstrey, 2015). When gender identity dysphoria was first identified by professionals, the focus was mainly on how to make decisions about who was an appropriate candidate for sex reassignment surgery (HBIGDA, 2005). As more clients were seen and interviewed, clinicians learned that there were many clients with gender dysphoria, those diagnosed with GID, those who did not desire surgery, and those who were not good candidates for surgery, as well as those who would eventually transition and live their lives as they desired (HBIGDA, 2005). Midence and Hargreaves (1997) commended the recent research on surgical outcomes for providing important information, but found that the psychological research on transsexualism has ignored the importance of cognitive style and psychological functioning of transsexuals.

Transgender people have a wide range of psychosocial issues for which they may seek psychological help (Carroll, Gilroy, & Ryan, 2002). Some of the issues that bring

transgender persons into treatment are health, aging, substance abuse, geographical relocation, relationships (personal and family), economic, trauma from violence, depression and anxiety, children, and divorce (Cook-Daniels, 2002). Psychologists Schaefer and Wheeler (2004) delved into the issue of unresolved guilt in gender identity conditions, highlighting the fundamental importance of initiating psychotherapy with health care providers who are trained to work with gender identity conditions. These authors emphasized the importance of psychoeducation and guidance to help the client understand the primary sources of guilt. Harry Benjamin (1953) understood the value of psychoeducation when he suggested that it is wiser and more sensible to treat society with psychoeducation so that logic, understanding and compassion might prevail (Schaefer & Wheeler, 2004).

Transgender people of color and ethnic minorities may be at increased risk for mental health consequences (Kenagy & Bostwick, 2005; Chang & Singh, 2016). Rosario (2004) stated that racial and ethnic minority transgender people lack support from both the dominant society and the culture of origin. Kenagy and Bostwick (2005) reported that transsexual people have been found to have less access to mental health care because they are significantly less likely to have coverage. Sperber et al. (2005) reported that discrimination against transgender persons in health insurance is pervasive.

Health Risks for the Transgender Population

Many public health studies report a high rate of risk for adverse health outcomes for transgender people, such as HIV+, substance abuse, and psychological problems (Inciardi, Surratt, Telles, & Pok, 2001; Kammerer, Mason, Connors, & Durkee 2001a/b; Namaste, 2001; Nemoto et al., 2005; Reback & Lombardi, 2001). Bockting, Robinson,

Forberg, and Scheltema, (2005), in one of the few studies comparing HIV prevalence and risks among transgender people and sexual minority populations, found that by combining data on condom use, monogamy, and multiple partners, the transgender group did not differ from the nontransgender groups in their overall risk for HIV. However, the transgender group was less likely to have been tested for HIV. Bockting et al. (2005) is one of the few studies not using a convenience sample, which typically show a much higher rate of HIV infection among transgender participants than was found in this study.

HIV positive transgender persons are a special subgroup when they are considered for surgical sex reassignment treatment (Kirk, 2001). Physician and surgeon Sheila Kirk (2001) discusses the important issue of whether SRS is elective or indicated (i.e., medically necessary) surgery, finding that SRS is "indicated" based on the need to accomplish congruity between identity of mind, spirit, body and anatomy. In the literature to date, there is scant presentation of formal criteria or guidelines for preoperative assessment of the HIV positive transgender person. Kirk suggests guidelines of contact with the patient's primary physician treating for HIV, and review of evaluations of HIV medical history, lab data, and treatment regimen. SRS Surgeon Neal Wilson (2001) suggests guidelines for surgery using CD4 lymphocyte count and viral load. A significant amount of information currently known about urban transgender communities has been gathered through public health research related to HIV health care and prevention programs (Xavier, 2000).

Public Health Programs and Services

Public health goals are built around the provision of programs and services to promote health and prevent disease, injury and disability (Mail & Lear, 2006). The

authors discuss the role of public health in LGBT health, stating that even when public health services appear to be available to everyone, they are often denied to LGBT individuals because of homophobia, transphobia, miscommunication, or fear. LGBT public health is known as a relatively new field of investigation within which some of the most important concerns remain largely unexplored (Mail & Lear, 2006).

As Mail and Lear (2006) state, political forces in the United States continue to deny LGBT people basic rights to equality given by the U.S. Constitution, including nondiscrimination in health care. National LGBT health conferences in the late 1970s spurred the formation of LGBT caucuses within nearly every national health professional organization (Mail & Lear, 2006). The demand for services caused local health institutions to employ openly LGBT staff and to educate their staffs about special health needs (Mail & Lear, 2006). The success of the national health conferences for LGBT visibility is seen in the number of comprehensive reports of special health needs and other health concerns of sexual minorities (Mail & Lear, 2006). The first organizations to fund LGBT education and research were established as Lesbian and Gay foundations, but also addressed LGBT health (Mail & Lear, 2006).

Sell and Silenzio (2006) point out that researchers are still in the process of identifying what constitutes LGBT public health research and answer questions about basic definitions of sexual orientation and constructs about gender. Community public health models of treatment care addressing health care needs of transgender individuals need to be developed by researchers who understand that gender identity has been confused with gender assignment based on natal physical sex characteristics observed at birth (Ferris, 2006). As Ferris points out, gender identity is not related to sexual

orientation; thus, the transgender community, as part of the LGBT community, has its own issues, which are sometimes very different from LGB issues.

Kirk and Kulkarni (2006) give a realistic, experience-based description of transsexual persons within the mental healthcare system, pointing out that transsexual people are "really just like everybody else" (p. 145) when they seek professional help and need support because they are in pain. Some of their problems may stem from their adjustment to transgender coming out, and some may be common problems in living (Kirk & Kulkarni, 2006). These researchers recommend group modalities to relieve isolation, learn about the transitioning process, gain insight to personal and social problems they may experience, and receive concrete support for their identity. The researchers illuminated three significant barriers to sound medical and mental health care for the transgender population. First, health care providers with little experience or understanding of transgender people and their needs leads to substandard care. Second, insurance companies and agencies with policies that reflect a lack of acceptance, knowledge, and interest about transgender persons, make decisions that serve to negate adequate medical and mental health care, for example, the rejection of surgical interventions. Third, inadequate funding for research and education, which results in the perpetuation of lack of knowledge, and discrimination by health care providers.

Health care providers have only begun recently to address the unique health needs of the transgender population (Kirk & Kularni, 2006). Eliminating barriers to sensitive health care is imperative not only to provide direct care for this underserved community but also to gain access to patients who provide data for competent research, as research is critically needed (Kirk & Kularni, 2006). Barriers to health care access are discussed by

Hernandez and Fultz (2006) as encompassing institutional barriers such as the third-party payer insurance system and confidentiality of medical records; provider-based barriers to LGBT health care, such as homophobia and transphobia; and patient-based barriers such as shame or embarrassment that limit ability to discuss health care concerns, and negative past experiences with the health care system. Schilder et al. (2001) state that LGBT patients who receive what they perceive to be culturally competent care are more likely to be treatment compliant and continue recommended treatment plans. Wallick, Cambre, and Townsend (1995) and McGarry (2002) found evidence that once LGBT-specific educational programming was introduced into the curriculum, the attitudes of students in the health sciences became less homophobic and more culturally sensitive.

Mail and Lear (2006) describe the LGBT health movement as strongly holistic and community based, rooted in public health activism seeking to end discrimination against LGBT individuals in health services. The LGBT community has initiated and maintained public health programs and medical services for LGBT people in several cities across the U.S.A., either independently or collaboratively with hospital, universities, local health departments, and community organizations. Bockting and Avery (2005) published results of a series of studies to assess HIV prevention and health in several urban transgender communities within the U.S.A. The rates of HIV infection were at lowest 25% in Houston, to as high as 48% among high risk MtF transsexuals in San Francisco. Nemoto and colleagues (2005), in San Francisco, found utilization rates of basic health care service to be high, while the use of social services, substance abuse treatment, psychological counseling and gender transition-related medical services low. Kenagy (2005) in Philadelphia and Kenagy and Bostwick (2005) in Chicago found high

levels of physical and sexual violence, with an astounding two-thirds reporting thoughts of attempting suicide.

Lurie (2005) identified training needs of New England health-care providers on transgender-related HIV issues. He found that while health care providers desired to provide care for their transgender patients, they admitted to discomfort, lack of specific assessment and interviewing tools, and lacked experience and information about the transgender population. Among Lurie's recommendations are training for health care providers should be provided by transgender persons, the establishment and dissemination of guidelines for medical care for transgender individuals, and the incorporation of transgender health information as part of training curriculum in professional schools. There is current emphasis on better partnership between health care providers and consumers (patients) in the health care system. Bockting et al. (2004) found in their survey of transgender patient satisfaction in a university based mental health clinic that it is possible to reach high levels of patient satisfaction with adequate access to care provided by trained and experienced clinicians.

Lynne and Gilroy (2002) recognize the emergent social and political imperatives of the transgender community have implications for mental health issues and psychological interventions. They recognize a paradigm shift from a focus primarily on hormone and SRS intervention enabling transgender persons to "pass" within the traditional gender binary, to the affirmation of unique identities of all transgender people. Bockting (1997b) proposes that treatment issues no longer center on assisting those transitioning to their new gender to merely adjust, but on the possibility of affirming a unique transgender identity. This paradigm shift, Bockting explains, shifts the focus from

transforming the client to transforming the cultural context in which the client lives. To this end, mental health professionals are in a position to take the initiative to adapt the multicultural counseling competencies and standards described in Sue and Sue (2003) to address knowledge and skills crucial for work with transgender persons.

Professional Organizations

Until very recently, there has been a lack of acknowledgement of psychological treatment issues for transgender people among the professional organizations, nowhere more evident than within the APA itself. The Guidelines for Psychotherapy with Lesbian, Gay, and Bisexual Clients (APA, 2000) did not include the transgender population, despite the burgeoning of literature over the past two decades and the universal change in the community logo to "LGBT" representing the inclusion of the transgender community. However, in response to the increased demands for full equality by activists over the past decade, the APA has become a shining example for its work on gender identity and gender variance.

In February 2005, the APA Council of Representatives authorized the appointment of a Task Force on Gender Identity and Gender Variance, charging them to review APA policies regarding transgender issues, to develop recommendations, to propose how the organization can address the needs of transgender individuals within APA, and to recommend ways to collaborate with other professional organizations on these issues. In 2006, the APA Task Force on Gender Identity, Gender Variance, and Intersex Conditions published an informative and accurate question-and-answer brochure about transgender individuals and gender identity (APA, 2006). After several years of reviewing the scientific literature and its policies regarding transgender issues, the APA

Council of Representatives adopted a resolution supporting full equality for transgender and gender-variant people (APA, 2008). In August 2008, the organization adopted a policy of non-discrimination, issued by their LGBT Concerns Office (APA, 2008). In 2009, the APA Task Force on Gender Identity and Gender Variance published a comprehensive report on transgender issues (APA, 2009). In 2015, the APA adopted the Guidelines for Psychological Practice with Transgender and Gender Nonconforming People (APA, 2015).

The American Psychiatric Association has formed a Gender Identity Disorders Work Group. However, the group is concerned primarily with *DSM-V* diagnostic issues and presenting its findings at various professional meetings. Zucker (2008) reports, in 2008 the organization sought input through a formal survey from 60 advocacy groups who represent transgender adults.

Problems Conducting Empirical Research with the Transgender Population

Aside from limited funding, the most obvious obstacle to conducting psychological research with the transgender population is access to participants. Transgenderism has a very low prevalence (Zucker & Lawrence, 2009). Large studies are conducted primarily by the U.S. government through the National Institutes of Health (NIH) and the National Institute of Mental Health (NIMH). However, very few research projects specifically address LGBT issues. Smaller scale studies are conducted internationally through universities, centers for AIDS prevention, centers for human sexuality, LGBT centers, and gender clinics. These health and community-based institutions have access to larger groups of transgender individuals seeking services than ordinary mental health clinics or private practitioners.

Xavier and Simmons (2000) attribute the lack of research on the transgender community largely to the difficulties inherent in identifying and studying marginalized populations. Social stigma places most transgender people at society's margins (Xavier & Simmons, 2000). Many transgender persons remain invisible as they attempt to "pass" for fear of violence and discrimination; prevalence data is scarce especially in smaller, isolated transgender communities (Xavier & Simmons, 2000). Lack of understanding of the wide variety of self-descriptive identity terms used in the population make the categorization and the development of survey instruments difficult (Xavier & Simmons, 2000). Subsequently, significant numbers of transgender people are unintentionally omitted from the research efforts (Zucker & Lawrence, 2009).

Possibly the greatest challenge is the issue of generalizability. In a team report on LGBT health, Dean et al. (2000) concur that the relatively small size of, and the large diversity within the LGBT and the transgender population make the population difficult to define and representative sampling challenging. Stein and Bonuck (2001) respond that in the absence of large scale federal data collection sources researchers have relied upon alternative sampling methods such as snowball sampling and targeted advertising to recruit transgender study populations. Meyer (1995) states that such sampling techniques may increase the possibility of bias in the research, specifically, selection and volunteer biases. Another potential problem is that small sample sizes lack power for statistical analyses. Another difficulty is a limited database and knowledge of population parameters. Gehring and Knudson (2005) provide a common example when they describe the limits of their own methodology in the discussion section, i.e., limited database, small sample size, and lack of a control group, resulted in limitations to the generalizability of

their findings. Problems with international studies include the use of different instruments and cultural and language differences that make comparisons difficult. Winter (2005), in his study of heterogeneity within a Thai transgender sample, attributed discrepancies between his findings and the findings of a Polish study to cultural differences in the gender landscape.

Sell and Silenzio (2006) outline the strengths and limitations of research methods commonly used to study LGBT populations, which are sometimes hidden populations. The authors explain that constructs and categories of gender are not well-defined, although this is not essential to conducting research. There is tremendous variability in definitions and meanings implicit in these definitions (Sell, 1997; Sell & Petrulio, 1996). There are very few valid and reliable measures in use for the transgender population. It is necessary to have logical conceptualizations of constructs to develop reliable and valid measures (Sell, 1997).

Despite lack of agreement on definitions, there are major trends in definitions of constructs. For example, Smith et al. (2005b) found differences among transsexual individuals based on sexual orientation; Elkins and King (1997) discuss the limitations of medical categories of transvestism, transsexualism and gender dysphoria; Kessler (2000) discusses a theory of transgenderism in terms of challenge to the social construction of gender; and Docter (2001) identified components of transgenderism using factor analysis. There are different glossaries of terms for the concept of transgender and transsexual presented in appendices of numerous published articles. Namaste (2000) suggests using methodological strategies that allow transsexuals to validate how the data of their lives is

interpreted, based upon her observation that transsexuals are often not consulted in the studies, articles, monographs and books written about them.

Theoretical Constructs

Gender Identity

In her discussion of the legal aspects of gender, Bell (2004) focuses on the central role the legal system plays in defining gender. Bell states that the legal system controls the ability to make the initial sex/gender determination. Bell points out that this task is often delegated to attending physicians at the birth, thus retaining control by regulating the ability to amend or alter the birth certificate, among other gender-identifying documents.

Gender identity is a central construct in models of psychosocial development and mental health (Bem, 1993; Egan & Perry, 2001; Harris, 1995; Maccoby, 1998), yet there are diverse definitions. Kohlberg's cognitive-development approach (1966) defined gender identity as knowing one is a member of one sex rather than the other. Kagan (1964) saw gender identity as the degree to which one perceives the self as conforming to cultural stereotypes for one's gender. Bem (1981) viewed gender identity as the degree to which one internalizes societal pressures for gender conformity. Huston's (1983) call for a more integrative, comprehensive approach to the study of gender identity development, elicited Bussey and Bandura's (1999) development of an elaborate social-cognitive model based on social learning theory, which explains gender identity as an integrated product of the interplay of cognitive, affective, biological, and sociostructural influences. Martin, Ruble, and Szkrybalo (2002) responded to Bandura and Bussey with their social-cognitive account of gender development, criticizing Bandura and Bussey's model for

being too narrow and not comprehensive enough in its consideration of cognitive accounts of gender development.

According to Bussey and Bandura (1999), the major theories proposed to explain gender development differ on dimensions of (a) emphasis on psychological, biological and social determinants; (b) how gender differentiation is transmitted (i.e., through identification with parents, genetic transmission, and gender roles maintained by social structures); and finally (c) the timeframe of the theory for gender development (childhood phenomenon vs. life course variability across social contexts and life periods). The various theories of gender development all rely on the two-gender binary system of analysis. Transgender experiences, with their emphasis on gender identities outside the traditional binary constructions of gender and sexuality present a challenge to the major theorists whose work is premised upon the dominant two-gender model (Nagoshi & Brzuzy, 2010).

Traditionally, gender is the most dominant feature of social organization and interpersonal experience (Kite, 2010). Kite presents evidence that people organize their perception of others according to gender first, before making any other demographic distinctions (i.e., race, age, class, or other variables). Society's insistence there are two and only two sexes and genders, identified as a "Cartesian duality", dictates the assignment of culturally defined masculine and feminine traits based on natal sex characteristics alone (Jacobs & Cromwell, 1992). Sandra Bem (1976), a seminal researcher in the area of gender and gender role and a pioneer in the dismantling of the gender binary, examined and measured masculine and feminine sex roles, analyzing society's defined traits of masculinity and femininity. Her analysis resulted in the

development of gender schema theory. Bem (1995) argued effectively for the dismantling of compulsory heterosexuality, biological essentialism and androcentrism by calling for the elimination of society's distinction of male-female based on the biology of reproduction.

The terms "sex and "gender" have been used interchangeably in terms of the gender binary, particularly in non-Western societies until the early 1990s (Bilodeau & Renn, 2005). One important outcome of the theoretical debate to resolve ambiguity in the terminology was the separation of "sex" and "gender" into two different constructs (Bilodeau & Renn, 2005). "Sex" now refers to biological aspects of chromosomes, genes, genitals, hormones and other physical markers at birth, some of which can be modified, some of which cannot (Bilodeau & Renn, 2005). "Gender" now refers only to behavioral, social, and psychological characteristics associated with masculinity and femininity (Pryzgoda & Chrisler (2000). Pryzgoda and Chrisler believe that even these definitions may be too simplistic. Recently, research on intersex issues (Bornstein, 1995; Golden, 2000; Kessler, 1998) questions the meaning of natal "sex" categories. The old belief in a universal, unchanging biological sex that dictates the behavior and psychological characteristics of men and women has been rejected (Meyerowitz, 2002). New discoveries keep scientists and their critics engaged in the debate on whether sex-linked genes, prenatal sex hormones, and specific brain sites are the determiners of masculinity and femininity, as well as sexual orientation (Meyerowitz, 2002).

Transgender and Transsexual Models of Gender Identity

The new post-1990 transgender model literature views gender identity as having a significant social component and recognizes the role of social construction of gender

(Boswell, 1991). The transgender model proposed by Boswell has shifted the locus of pathology from the transgender individual to a society and culture that are intolerant of difference and normal human variation. Boswell suggests that societal mistreatment, violence, and discrimination causes stress, psychological difficulties, shame and guilt, self-destructive behaviors, mood disturbance, dissociative conditions, personality and behavior disorders – many of the conditions the old transsexual model assumed were symptoms of the mental illness of transsexualism.

In a review of LGBT identity development models, Bilodeau and Renn (2005) find diversity models, such as the transgender model, not only challenge universal traditional beliefs about LGBT identity, but describe transgender identity and development in a multicultural context, enriching the theoretical basis for understanding LGBT identity development. One criticism the authors raise is that models of LGBT identity development have not been developed from empirical data. Empirical data is crucial for research, theory, the development of instruments, and the design of various programs that are inclusive of transgender persons.

Clinicians have begun to explore transgender identity formation, which supports the need for development of both theoretical models and psychological treatment models. Meyer (2003) discusses the fact that traditional models of sexual identity formation focus on gay and lesbian identity development but do not adequately explain gender identity formation for transgender people. Devor (2004) presents a model of transsexual identity formation which acknowledges a biological component but focuses on stages of psychological "coming out" similar to Cass' (1979, 1984) model of homosexual identity formation, and corresponding social behavior, i.e., a range from stage 1 preference for

other gender activities and companionship to stage 14, transsexual pride and advocacy. Devor (2004) warns that in reviewing the model it is important to keep in mind that each person is unique and that people may not move through the stages in order, or at all. Denny (2004) charts the paradigm shift from the view of transsexualism as a mental illness to a new transgender model, which explains transsexualism as a natural form of human variability. This popular model, now 10 years old, views SRS as one of many acceptable life choices for transgender people.

One controversial model of transgender development proposes that a large percentage of MtF transsexuals suffer from the paraphilia of autogynephilia (Lawrence, 2004). Autogynephilia is defined by Blanchard (1991) as the propensity to be sexually aroused by thoughts and images of oneself as female. He distinguishes four different types in gender dysphoric males, i.e. transvestic, behavioral, physiologic, and anatomic autogynephilics. Lawrence (2004) suggests the concept of autogynephilia provides a model to explain why some transsexuals who have a history of cross-gender eroticism seek SRS. Lawrence reports the model is controversial among transsexuals, with some identifying with the explanation, while others reject the model as both foreign to their experience and further pathologizing.

Stress

Stress means tension or strain of a mental, physical or emotional nature. Stress may be defined as "any condition having the potential to arouse the adaptive machinery of the individual" (Pearlin, 1999, p. 163). A stressor can be defined as a stimulus that can potentially induce stress (Perlin, 1999). Recently, the literature discusses stress in terms of external events or environments that are pressure people beyond their ability to adapt

(Dohrenwend, 2000), thus having the potential to become a factor in the onset or exacerbation of mental or somatic illness. Researchers have investigated such variables as traumatic events, role strains, daily hassles, chronic stress, and even nonevents (Kilpatrick, Resnick, Baber, Guille, & Gros, 2011; Lockenhoff, Duberstein, Friedman, & Costa, 2011).

Stress has long been known to affect physical and psychological health in humans and a variety of animal species. Pioneer Walter Cannon (1935) conducted physiological laboratory studies on stress in animals, suggesting environmental change events lead to adaptive stress through the struggle to reestablish homeostasis. Renowned stress researcher Hans Selye's (1956) discovery of general-adaptation-syndrome in experimental animals, consisting of stages of alarm-reaction, resistance, exhaustion, and ultimately death, led to discoveries of the effects of physical and emotional stress in humans. Selye (1953) had strong evidence to suggest many neuropsychiatric disturbances are diseases of adaptation to emotional stress. He named psychosomatic illness, neurosis and psychosis as being elicited by stress, resulting in organic changes in the brain tissue. Selye's model was an S-R model.

The notion of social stress has extended stress theory by demonstrating that both social conditions and personal events can have a negative physical and mental health impact (Dohrenwend, 2000). Pearlin, Menaghan, Lieberman, and Mullan (1981) conducted a longitudinal study on the process of social stress, distilling three major conceptual areas: sources of stress, mediators of stress, and manifestations of stress. They perceived a process where (a) persistent life strains or role strains combined with diminished self-concept led to stress, and (b) people use social supports and coping to

mediate stress intensity. They and other researchers have found a wide range of individual differences with regard to how people are affected by the same conditions.

Stress-diathesis models were developed to account for the fact that not every person reacts to stress in the same way (Zuckerman, 1999). Many explanations of psychopathology in general use a stress-diathesis model in which individual variables (i.e., personality variables, cognitive schemas, and biological factors) interact with life stressors to lead to the onset of psychopathology (Brown & Rosellini, 2011). Slavik and Croake (2006) discuss stress-diathesis models in relation to the etiology of mental health disorders. They focus on the relationship between acute or chronic stress and the resulting distress as the primary factor in the onset and course of mental disorder. Beck's cognitive triad model (1967) and Miller and Seligman's learned helpless model (1982) are two important cognitive stress-diathesis models. Beck's popular model posits three cognitive types of worldviews critical to the development of depression. Sidney Blatt (2004) discusses a new paradigm for research on depression. He suggests that new action-oriented models have supplanted stress-diathesis models of vulnerability to depression and enhanced our understanding of the antecedents and contributing factors of depression.

Psychosocial stress is a universal type of stress among humans. Social stress is related to potentially harmful health effects because of elevation in the level of the hypothalamus-pituitary-adrenal (HPA) axis hormones (Simoens et al., 2007). Stress involving extensive and/or chronic release of HPA hormones has been associated with detrimental effects on cardiovascular, immune, metabolic processes and emotional well-being. Social and interpersonal stress may be factors in the development of depression

(Gunthert, Cohen, Butler, & Beck, 2007; Little, & Garber, 2005), anxiety symptoms (Hofmann, 2007; Williams, & Berry, 1991) substance abuse (Field, & Powell, 2007; Sher, Bartholow, Peuser, Erickson, & Wood, 2007; Sinha, & Li., 2007; Rhodes, & Jason, 1990), and risk of suicide (Bostwick et al., 2007; Safren, & Pantalone, 2006; van Heeringen, 2000). Dickerson and Kemeny (2004) found, in their meta-analysis of 208 studies, that the perception of threat to the social self is a major situational trigger of HPA axis activation in response to stress. According to Barlow (2002); Cohen et al. (2002); Cole, Kemeny, and Taylor, (1997); and Hamrick, Cohen, and Rodriguez (2002) threats to social status, self-esteem, respect and/or acceptance that are perceived as uncontrollable and/or beyond one's ability to cope, lead to a biological stress response. Threats to a person's identity (i.e., ridicule, disclosure to others, discovery of sexual identity by others, physical assault) are a source of chronic stress for LGBT minorities, promulgated by societal stigmatization (Balsam, Molina, Beadnell, Simoni, & Walters, 2011; Bockting et al., 2013).

Stigma

The Greeks defined the term "stigma" signifying a mark that was burned or cut on the body of slaves, traitors, criminals, and other individuals designated to have poor character (Goffman, 1963). Irving Goffman's concept and definition of stigma remains the most popular among contemporary researchers (Crocker, Major, & Steele, 1998). Goffman's first definition of social stigma was *spoiled* social identity. He suggested several attributes, including that a stigma represented a deviation from traits accepted by society as normal, and that traits considered deviant from the social norm are perceived as handicaps, failings, and shortcomings. He said that individuals with deviant attributes

are deprived of credibility and are excluded from the freedoms granted by society; therefore they have a spoiled social identity and are ultimately disowned or disenfranchised by society. Goffman placed emphasis on the idea that stigma is a social construction rather than a personal trait. Goffman's concept of deviancy is contextual; a trait that is stigmatizing in one context may be empowering in a different context.

Since Goffman's (1963) book *Stigma: Notes on the Management of Spoiled Identity* there has been an increase of research in the social sciences on the nature, sources and consequences of stigma (Crocker, Major, & Steele, 1998). The concept of stigma has been applied to many topics ranging from medical problems such as urinary incontinence to mental illness and mental health issues—including the impact of stigma on the mental health of LGBT minorities (Murthy, 2001; Pederson & Vogel, 2007). The literature on stigma is notable for the variability in the definition of the concept.

Early researchers and writers Allport (1954, 1961); Clark and Clark (1950); Fanon (1952); Sartre (1946, 1948) suggested that stigma left the stigmatized individual with serious behavioral and psychological deficits. More recently, however, theorists are rejecting the idea that stigmatization invariably causes internalized negative feedback (Crocker et al., 1998, Major & O'Brien, 2005). Researchers suggest that there are mediating and contextual variables that influence outcome. According to the U.S. National Center for Education Statistics (2004), there are substantial differences on academic achievement measures among stigmatized and nonstigmatized groups. These differences have been attributed to the effects of discrimination (Steele, 1997). In comparison to people in nonstigmatized groups, people identified as belonging to a stigmatized group are at increased risk for physical and mental health problems

(Hatzenbuehler, Dovidio, Nolen-Hoeksema, & Phills, 2009; McEwan, 2000; World Health Organization, 2003), such as hypertension, heart disease and stroke, depression, shorter life expectancies, higher infant mortality, exposure to social and physical environments that are more harmful, and limitations on access to quality medical care, mental health care, and adequate nutrition (Clark, Anderson, Clark, & Williams, 1999, Harrell, 2000, Link & Phelan, 2001).

Link and Phelan (2006) define stigma as a result of a process of five interrelated components that interact to generate stigma. In the first component, people notice, identify, and label differences in others, such as gender, skin color, IQ, age, sexual orientation, ethnicity, body weight, abilities and disabilities, etc. In the second component of stigma, there is a process of stereotyping and the expedient use of heuristic shortcuts to label the person who is linked to undesirable characteristics. In a third component, the person or group doing the labeling isolates the stigmatized group or person from "us". In the fourth component, stigmatized people experience loss of status and discrimination. Finally, and most critical for the existence of stigma, is the role of diminished power where the stigmatized individual or group attempts to reverse the stigmatization by negative labeling. For example, a transgender person may label health care workers at their health care agency as transphobic, callous, arrogant and hostile. Furthermore, the authors believe the impact of stigma processes have a profound yet unrecognized effect on people's lives because commonly, people have more than one stigmatized condition (e.g., AIDS, race, gender orientation, ethnicity, sexual orientation, mental illness, homelessness).

Branscome, Ellemers, Spears, and Doosje (1999) discuss several types of threat they present as sources of stress and stigmatization. *Categorization* threat is threat a person experiences when they believe they will be identified and marked as a belonging to a group without their concurrence, specifically when being a member of a group is not relevant within the context, for example being categorized as "gay" or "transsexual" during a visit to a loan company or when applying for health insurance. *Distinctiveness* threat relates to being denied goods and services or a membership when it is relevant or significant, for example, being denied membership in a dating service or a social group. *Threat to the integrity of the social identity* concerns the disparagement of the integrity of the minority group, i.e., its intelligence or morality. *Threat of rejection* generates from threat of not being accepted by one's in-group, such as a transsexual person who is conflicted between "passing" to identify as a member of an LGB group and their true identity known by their group of transsexual friends. The identity threat model may have strong relevance for transgender people.

Other researchers who work with the identity threat model of stigma, Major and O'Brien (2005), Crocker and Major (1989), and Crocker et al. (1998), focus on three important outcomes of the effects of stigmatization: Self-esteem, academic achievement, and health. In their analysis of the literature on self-esteem they found inconsistencies in the results which they attribute to measurement issues and a wide range of self-esteem among members of stigmatized groups. Major and O'Brien (2005) address the effects of social stigma on mental health, suggesting that stigma is enacted directly through automatic stereotyping, expectancy confirmation, and discrimination, and indirectly through the enactment of threats to one's social and personal identity.

Lewis et al. (2006) suggest that minorities (race, ethnicity, culture, religion, LGBT, and people with AIDS or disabilities) frequently have experiences that mainstream people do not, for example, "expectations of negative reactions from others because of their minority status and difficulty talking with others about issues related to their minority status" (p. 48). Researchers Drescher (2002) and Herek (1998) report that LGBT individuals are often subject to prejudice, stigma, social injustice and violence. Li et al. (2007) found that LGBT persons are often subject to HIV-related stigma, which is prevalent world-wide. Those who suffer the negative effects of stigma such as lowered self-esteem, problems with housing and employment, or poor social interactions, also experience chronic stress – for minorities, this is named minority stress – that can lead to stress-related illness and increased risk for mental health problems (Cochran, Sullivan, and Mays, 2003; Meyer, 2003). The social stigma of being lesbian, gay, or bisexual is a significant risk factor for psychological distress (Cochran, 2001; Cochran, Sullivan, and Mays, 2003; Savin-Williams, 1994). I hypothesize that heightened risk for distress is true for the transgender population, and I investigate the relationship between minority stress and mental health variables.

Goffman (1963) described the fear and anxiety of individuals as they interact in a society which does not accept them or consider them to be "equals". Allport (1954) describes *vigilance* as a defensive coping trait that individuals develop who are targets of prejudice. Meyer (2003) states that Allport's explanation supports his understanding of the stressful effect that stigma has in the lives of LGBT people. That is, when stigmatized LGBT individuals learn to expect or anticipate negative judgments by other members of society, they seek to protect themselves from potent negative reactions, discrimination

and violence by maintaining a degree of vigilance. “The greater one’s perceived stigma, the greater the need for vigilance” (Meyer, 2003, p. 688) when interacting with others, especially those in the majority culture.

Jones, Farina, and Markus (1984) described the effect of stigma as creating a conflict between a person’s perception of self and the perceptions of others. The researchers suggest that it is more likely that the consequence of such conflict will be a vulnerable and possibly unstable self-perception. They suggest that to maintain a stable perception of self requires a high degree of energy and activity. Furthermore, the demand for energy to maintain a coherent perception of self may be extraordinarily stressful and is likely to increase as one perceives one is being stigmatized by others.

Gagne, Tewksbury, and McGaughey (1997) describe among their research participants the overwhelming need to express a “true self” in the face of the confusion, anxiety, and shame they experienced. According to Link and Phelan (2006) stress is also associated with the constant threat of being stigmatized, the effect of which has consequent negative effects on mental and physical health. For transgender individuals, whose identities are often fragile and unstable (Devor, 2004; Samons, 2001), there is likely to be an additional effect of stress in their effort to maintain a stable perception of self in events where stigma is enacted.

Stigma consciousness, as defined by Pinel (1999), is “the expectation one will that one will be stereotyped, irrespective of one’s actual behavior” (p. 115). Prejudice and discrimination have been identified in the literature as placing stigmatized individuals at risk for negative psychological consequences. According to McGrath, Strickland, and Russo (2004), groups marginalized from mainstream culture have been found to be at an

increased risk for depression. Stigma is a universal feature of LGBT lives in most cultures because of marginalization. Balsam and Mohr (2007) found support for the belief that stigma sensitivity increases individuals' vigilance for signs of prejudice. Stigma sensitivity has been linked to higher levels of mental and physical health problems in LGB individuals (Lewis et al., 2006; Lewis et al., 2003) and lower levels of relationship quality in same sex couples (Mohr & Fassinger, 2006). Stigmatized status is often referred to as "outness level" in the literature on identity formation, and has been linked with psychological distress among LGB people (Lewis et al., 2003).

One context in which there are documented positive reactions to transgender persons is within the feminist community, despite historical conflicts over transgender women attending all-women events such as the Michigan Women's Music Festival (Serano, 2013). Kendal, Devor, and Strapko (1997) report that their survey among feminists and lesbians showed virtually all "agree that transsexuals should have the same human rights as everyone else" (p. 155). Leitenberg and Slavin (1983) surveyed the general public's attitudes toward transsexuals and homosexuals, finding transsexuality more acceptable than homosexuality, which was indicated "always wrong" more often than transsexuality. Landén and Innala (2000) report that in Sweden, the "majority supported transsexuals" right to marry in their new sex and their right to work with children" (p. 375). They report that the majority supports SRS, would accept transsexuals as co-workers, and would have an open transsexual as a friend. The authors report gender differences, finding women had more tolerant attitudes toward transgender persons than men, a finding similar to reports from research on attitudes toward the LGB population.

In contrast, experimental research investigating reactions of participants to LGBT people, suggest that attitudes toward transgender persons are not consistent (LaMar & Kite, 1998; Hill & Willoughby, 2005). Heterosexual men are less tolerant of cross-dressing than gay men; transgender persons were rated less favorably than gay men but still slightly to moderately positive on average (Moulton & Adams-Price, 1997; Hill & Willoughby, 2005). However, these surveys which all had methodological problems when conducting research with the transgender population will be covered in detail in Chapter 3. None utilized valid or reliable measures of transgender-negative views; the majority utilized measures consisting of single-items which had low psychometric strength and diminished insight into participants' responses. Furthermore, survey methods are often subject to demand characteristics (Orne, 1962). More research on attitudes toward transgender views is needed to discover the basis of stigma and attitudes toward transgender people, as it could be that the hate comes from a minority of the general population.

Stigma consciousness, "the expectation of prejudice and discrimination" (Lewis et al., 2006, p. 48) is associated with negative physical, cognitive and affective outcomes for lesbians. Lewis et al. (2006) found that social constraints (perceived barriers that make it difficult to talk about issues related to sexual-orientation) in combination with high stress from stigma-related expectations, are associated with the most severe physical and psychological outcomes. They found that physical symptoms such as diarrhea, cold or cough, and faintness, and psychological symptoms of internalized homophobia, intrusive thoughts, and mood disturbance were mediated by the component of talking with others about lesbian-related issues.

Men who have sex with men comprise another group whose state of health (in terms of HIV/AIDS and other STIs) is influenced by stigma. Preston, D'Augelli, Kassab, and Starks (2007) found stigma was predictive of high sexual risk among rural men who have sex with men. There may be a similar process for transgender individuals who desire to "pass" as their felt gender identity, and who experience stigma based on society's gender binary, exposing them to chronic stress (Mizock & Mueser, 2014).

Crocker, Major, and Steele (1998) report that members of devalued or stigmatized groups are frequently exposed to negative stereotypes and expectations, leading to self-fulfilling prophesies and low self-confidence. Goffman (1963), Jones et al. (1984), Katz, Joiner, and Kwon (2002), and Tajfel, (1981) concur that members of devalued groups may attempt to break this self-fulfilling cycle by concealing their true identity attempting to pass as a member of a more valued group. Barreto, Ellemers, and Banal (2006) provide evidence that this strategy does not work; however, for transgender individuals the desire to pass is motivated by the desire to express rather than conceal their true gender identity, although they are transgender and experience stigmatization for their identity.

Attitudes towards LGBT people have liberalized in recent years (Hicks & Lee, 2006; Loftus, 2001); however being lesbian, gay, bisexual or transgender is still very much a stigmatized identity (Herek, 2006). Religious organizations and conservative think tanks portray LGBT people as "psychologically and morally disturbed" (American Family Association, 1994), as victims of a developmental disorder (National Association for Research, & Therapy of Homosexuality, 2008), and as "sinners" (Family Research Council, 2010). LGBT people are often reluctant to reveal their orientation to the public, or even to friends and family members (Herek, 2006). The incorporation of the concept

of stigma into the minority stress process model helps to understand the impact of stigma on the mental health of LGBT stigmatized individuals.

Stigma can be considered a major stressor inherent in the lives of LGBT minorities (Balsam & Mohr, 2007; Bockting et al., 2013). Stigma is an important component of the social context in which LGBT people live (Kelleher, 2009). For transgender people, there is little research that distinguishes their phenomenological experience of stigma from LGB individuals (Carroll et al., 2002). Stigma creates a social context that may place LGBT people at greater risk for acute and chronic stressors in their daily lives (Bockting et al., 2013). Stigma also impacts the resources they have to mediate the impact of those stressors. Stigma has a direct impact on mental health through the hostile environment it creates (Hatzenbuehler et al, 2009). Hoopes, Knorr, and Wolf (1968) report finding considerable chronic depression and suicidal ideation among more than 700 individuals seeking evaluation for SRS. As early as 1969, Green (1970) observed that transsexuals feel more emotional pressure to change their gender role. In another early study, Wojdowski and Tabor (1976) discovered that transsexuals have various processes of stigma management to reduce tension, especially in the passing phase when individuals attempt to hide their stigma and identities at work and socially. Transsexuals who were interviewed reported that most of their coping mechanisms were developed independently or through association with other transsexuals. They reported having little professional guidance and no group support. As a group they were chronically depressed, anxious, and lonely. Later studies on coping with stigma identify stigmatization as a form of stress (Lazarus & Folkman, 1984; Miller, 2006; Miller &

Kaiser, 2001) and call attention to the ways in which stigmatized people may cope with stress due to their stigmatization (Allison, 1998; Miller, 2006; Miller & Major, 2000).

Herek (1994), Herek and Berrill (1992), and Kite and Whitley (1996) demonstrate that there are strong anti-LGB attitudes and consequential behaviors in American society. Given society's strong adherence to the gender binary, it should be no surprise that transgender people are even more despised when identified. The intensely negative public reactions to people associated with HIV infection (Herek & Glunt, 1988), specifically transgender sex workers, and the constraints of the binary gender system contribute to the stigmatization and marginalization of the transgender population. It is important to examine whether the stress imposed by this hostility and stigmatization adversely affects LGBT people, and specifically, the well-being and mental health of transgender people.

There is little empirical literature addressing issues specific to stigma among transgender people. Most of the literature related to stigma for transgender people addresses the topics of discrimination and violence. The transgender population more often is given less attention in the LGBT literature because less is known and/or published about them beyond anecdotal information. Hill and Willoughby (2005) note that while anti-transgender sentiments are pervasive in Western cultures, a few studies suggest that there are specific contexts in which transgender persons are finding increased tolerance. The authors mention that attitudes of mental health professionals appear positive over the past two decades, with most supporting human rights for transgender people and having only a few minor concerns for the transgender population as a group. In sum, stigma appears to be intrinsically related to stress, exerting a powerful indirect

effect on mental health by intensifying the acute and chronic stressors which LGBT people face in their everyday lives.

Discrimination

Predrag (2003) reports that five Muslim countries, with the support of the Vatican, blocked the adoption of a United Nations resolution to protect the human rights of LGBT people. Tee and Hegarty (2006) found that opposition to transgender peoples' civil rights was correlated with heterosexism, authoritarianism, a belief that there are only two genders, and that gender is biologically based. Letellier (2005) reports in a transgender news update on lawsuits against the United States immigration services for refusing to recognize the marriage between transgender individuals and their spouses; and, lawsuits against employers for discrimination. Letellier (2003) reports that nearly 70% of the transgender communities in California are unemployed or underemployed.

Despite many laws passed since 2002 to protect transgender people from discrimination, resistance to transgender inclusion in LGB politics is considerable. Letellier (2003) emphasizes that transgender people are not included in the sexual orientation anti-discrimination laws/clauses unless transgender is specified. On the positive side, legal victories won for transgender people over the past 5 years have been seen in many countries in the Asia-Pacific Region, in Europe, and in North America.

There is considerable case evidence in numerous published journal articles in diverse academic fields suggesting transgender people are victims of discrimination. While there have been recent significant civil rights victories in non-discrimination protection around the world, transgender people face monumental discrimination and violence that ranges from media ridicule (Gamson, 1998) to hate crimes (Moran &

Sharpe, 2002; Valentine, 2003). However, as Tee and Hegarty (2006) point out, psychologists have rarely explored prejudice and discrimination against this population. The literature is more numerous on discrimination against transgender people in employment and healthcare.

Discrimination against transgender people is generally conceptualized as one of the outcomes of social stigmatization and transphobia (Major & O'Brien, 2005). Experienced stigma is referred to by Meyer (2003, p. 678) as "objective, stressful events and conditions" such as discrimination. Major and O'Brien discuss the relationship between stigma and discrimination. Their conclusion is that discrimination is one of the negative effects of stigma, limiting access to critical services such as healthcare, education, employment and within the criminal justice system. Discrimination directly impacts psychological well-being, physical health and the social status of the stigmatized. Crandall and Eshleman (2003) reaffirm that people in stigmatized groups are discriminated against in these major domains of life, in institutional practices, immigration, and within the family system. Furthermore, Link and Phelan (2001) find a compounding effect of discrimination where those of low social status because of discrimination are vulnerable to even more discrimination.

One of the consequences of the stigmatizing aspects of transphobia and homophobia is discrimination against LGBT people based on the expression of their internal gender identity and sexual orientation, respectively (Major & O'Brien, 2005). Letellier (2003) discusses an even more distressing situation of discrimination against transsexuals occurring within the LGBT movement. As recently as 2003, The Empire State Pride Agenda, the largest gay lobbying group in New York State, refused to include

transgender people in a landmark bill they drafted protecting LGB individuals from discrimination, despite intense lobbying by the transgender community and its allies (Letellier, 2003). LGB researchers have investigated adaptation to sexual orientation stigma through considering the extent to which individuals identify with and participate in sexual minority communities. Meyer (2003), D'Augelli and Garnets (1995), Garnets, Herek, and Levy (2003), and Balsam and Mohr (2007) suggest that community connection may attenuate the adverse effects of stigma and provide a buffer against discrimination. This buffering effect may be lost for transgender people when they are discriminated against within the LGBT community (Balsam & Mohr, 2007).

Fiske, Cuddy, Glick, and Xu (2001) found that members of stigmatized groups are more likely to be negatively stereotyped along core universal dimensions of warmth and competence in most cultures. Transgender persons appear to be stigmatized and stereotyped with far more severity. Emerton (2006) reports, in her research with school teachers in Hong Kong, that more than half of the teachers stated they believed transgender people were mentally ill and needed treatment, that transgender people were likely to have diseases requiring treatment, and that they would not want to leave their children alone with a transgender person. Sixteen percent stated that transgender people should not be allowed to be around children at all.

Langley's article on gender fundamentalism (2006) reports that in numerous jurisdictions, it is legal to fire someone who transitions on the job and to deny a student or employee access to restrooms according to his or her gender identity. Hill and Willoughby (2005) report that nongovernmental organizations have found transgender people face discrimination in housing and social services such as women's and youth

shelters, access to health care, including treatment for drug and /or alcohol problems. Kammerer, Mason, Connors, and Durkee (2001b), Wright (2001), and Xavier, Bobbin, Singer, and Budd (2005) report that being poor and transgender because of employment discrimination is the most frequent reason given by MtFs for their turning to prostitution and subsequent increase of risk of substance abuse and HIV+. Sex discrimination legal scholars (de Vos, 2009; Esses, 2009; Kirkland, 2006) are working to find grounds for legal action against courts, employers, and realtors who discriminate against gender nonconformists and transgender people through sex stereotyping.

Bockting, Robinson, and Rosser (1998) report that transgender people may have difficulty finding employment in the cross-gender role, be denied access to health care and social services, be ridiculed in public, or be ostracized as sinful by their church. Warren (1993) discusses transgender attempts at "passing" as non-transgender as shifting to a new paradigm of more authentic identities based on gender-creative roles and sexual orientations. Stone (1991, p. 302) calls "for transsexuals to 'come out' and affirm their unique identity and experience" without adhering to dichotomous gender roles ascribed by society's gender binary system.

In a study of the relationship between perceived discrimination and mental health among LGB, Mays and Cochran (2001) found that among LGB individuals perceived discrimination was positively associated with harmful effects on quality of life and indicators of psychiatric morbidity in the total sample. This study is notable for minimizing methodological problems of sampling bias and lack of a control group that tend to be present in convenience based surveys of lesbians and gay men in which subjects are recruited through community networks available to researchers. Subjects in

the Mays and Cochran study were obtained from the MacArthur Foundation National Survey of Midlife Development in the United States, a population-based survey conducted in 1995. While no comparable studies have been conducted with a sample of transgender individuals, the research on perceived discrimination and mental health correlates (Kessler, 1998) suggests positive associations that may be similar within the transsexual population. The Kessler research corroborates what other research (Adams, 2009; Cohen, Kessler, & Gordon, 1995; Thoits, 1983, Turner & Lloyd, 1995) has shown – that the effects of discrimination are a major dynamic in the higher prevalence of psychological distress among minority populations.

In a longitudinal study of correlates and mediators of psychological distress, Gadalla (2009) found a higher prevalence of distress among people with low SES, who have long been known to be exposed to unfair treatment associated with discrimination. They also found that mastery and social support mediated distress. Transgender people are often not included in traditional discrimination statutes such as The Equal Protection Clause (Clough, 2000), thus exposing them to a potentially higher degree of discrimination and distress than the LGB population. This study investigates correlates of mental health and variables associated with minority stress among a sample of transgender individuals in an attempt to shed light on the effects of discrimination on mental health for this population.

Sugano et al. (2006) discuss the close relationship between transphobia, societal discrimination and stigma. The authors report:

> A study by the San Francisco Department of Public Health showed that transgender women had the highest HIV infection rate among all populations that

> had been tested—7.8 per 100 person-years—comparable with rates observed among gay men at the height of the epidemic in the 1980s (Kellogg, Clements-Nolle, Dilley, Katz, and McFarland (2001). (p. 218)

Clements, Wiley, Kitano, and Marx (1999), Lombardi et al. (2001), Sugano et al. (2006), Sykes (1999), and Xavier and Simmons (2000) have identified discrimination and barriers in health care, housing, and employment related to transphobia and societal stigma. Diaz, Ayala, Bein, Henne, and Marin (2001) conducted research on the relationship between social discrimination and mental health finding that experience with homophobia predicted an increasingly harmful mental health outcome for Latino gay men.

Nemoto, Operario, Keatley, and Villegas (2004) found that transgender individuals exposed to transphobia evidenced a greater degree of depression. The authors also found that transgender individuals who were involved with the transgender community had lower levels of depression. While Newfield et al. (2006) report that FtM transgender participants demonstrated a significantly diminished quality of life compared to the general population in regard to mental health, other researchers find that FtMs have a lower rate of exposure to transphobia, discrimination and violence than MtFs (Hill & Willoughby, 2005), and less exposure to HIV risk (Clements-Nolle, 2001). It is believed FtMs may "pass" more easily than MtFs and that FtMs may enjoy increased social status after transition to a male gender identity. Newfield et al. (2006) affirmed that transgender people in the United States routinely experience more discriminatory practices and provider insensitivity when accessing health care services than transgender people in Europe.

A few surveys have found tolerance for transgender persons in specific contexts such as "the right to get married and adopt and raise children" (Landén & Innala, 2000, p. 376), and the acceptance of transgender persons as co-workers in employment (Landén & Innala, 2000). Hill and Willoughby (2005) report fairly positive recent attitudes among mental health professionals toward transgender persons. In his recent U.S. study, Harvey (2002) found tolerant and positive attitudes toward transsexuals, although support for health coverage of SRS was small. These positive findings contrast sharply with anecdotal evidence. As discussed previously, there are methodological problems associated with research surveys. Specifically, survey instruments often consist of single items which have low psychometric strength, and provide little explanation for individual responses. Surveys are often subject to social demand characteristics and fail to tap more subtle values, reactions and beliefs. However, survey research is extremely valuable for gathering demographic data on minority populations.

Hill and Willoughby (2005) believe only a minority of the transgender community is at higher risk for discrimination and violence, specifically, transwomen sex workers (Weinberg, Shaver, & Williams, 1999) and that only a minority is extremely hateful towards transgender persons. In the last few years, however, researchers have begun to conceptualize anti-transgender prejudice. Hill (2002) suggests three key constructs that can be used to conceptualize hate against transgender persons: transphobia, cisgenderism, and gender-bashing.

Violence, Harassment, and Verbal Abuse

Violence and harassment of LGBT people has been defined as a manifestation of homophobia, biphobia, and transphobia –the stigmatization of and the discrimination

against those with nontraditional gender identities (Clements et al., 1999; Lombardi et al., 2001; Sugano et al., 2006; Sykes, 1999; Xavier & Simmons, 2000). Gender-bashing is another term (Wilchins, 1997) which refers to the assault and/or harassment of individuals who do not adhere to society's traditional gender norms. Hill and Willoughby (2005) discuss the concept of genderism as "an ideology that reinforces the negative evaluation of gender non-conformity or an incongruence between sex and gender" (p. 534). The authors report cases of transgender individuals who have been victimized, ranging from physical attack to the extreme of being killed for their gender non-conformity. Many such cases involving gay and transgender persons have gained international attention.

Surveys report estimates of as high as 60% of respondents who had been victimized, ranging from assault, to harassment on the street by strangers, and verbal abuse (Gagne et al., 1997; Lombardi et al., 2001). Quantitative research on transgender populations is scarce; however, anecdotal evidence from service providers (Mottet & Ohle, 2006) indicates that there is a large and growing population of young people who are challenging gender norms and coming out as transgender, who are being exiled from their families as a result. These homeless transgender youth are experiencing discrimination, harassment, and violence in social programs that provide emergency housing, such as shelters. According to Mottet and Ohle (2006), transgender persons are disproportionately represented in the homeless population because of harassment and discrimination at home, in school, and in employment, thus they are vulnerable to poverty. Furthermore, transgender persons face profound discrimination within social services programs (Mottet & Ohle, 2006).

Kidd and Witten (2007/2008) review the literature on hate crimes and violence against transgender communities. The authors state "hate crimes, violence, and abuse are facts of life for a great number of transgender-identified individuals", (p. 38). Witten and Eyler (1999) report from survey sample data of 213 primarily Caucasian, middle to upper class MtF individuals, a large proportion of those who responded reported incidents of abuse and violence had been perpetrated upon them because of their gender non-conformity. Much of the abuse and violence was suffered before the age of eighteen. As they describe the context of hate crimes, they suggest abuse and harassment may take many forms. Research conducted by Lombardi et al. (2001), The National Coalition of Anti-Violence Programs (2007), and a review by Kidd and Witten (2007/2008) of "hate crimes, violence and genocide against the global transgender communities" (p. 31) corroborate high levels of violence against transgender persons.

Kidd and Witten (2007/2008) review the literature on violence against transgender persons suggesting four emerging themes: (a) "the majority of anti-transgender hate crimes studied took place in social settings" (p. 40) such as "the workplace, on the street, in bars, or in any other public, interpersonal scene" (p. 40), including religious and educational settings, and within the home; (b) "socioeconomic status was among the best predictors of a transgender person's experiencing violence. Among the factors noted as contributing to this trend were homelessness as a result of parental disapproval of the youth's gender identity and the resultant survival crimes such as sex work" (p. 42); (c) "lifelong occurrence of hate violence" (p. 42) from childhood through elder age; and (d) "underreporting that accompanied victimization" (p. 43), frequently due to "fear of reprisal by the perpetrator" (p. 43), "fear of abuse by the

medical and legal system" (p. 43) and that "it would not make a difference if they had reported the incident or incidents" (p. 43).

Verbal harassment may come from many sources such as anti-gay and anti-transgender language like "fag" or "dyke" or "freak", telling inappropriate stories or jokes (for example a joke about "chicks with dicks"), making sexually inappropriate gestures, asking inappropriate questions about a person's body, intentionally using the wrong pronoun or name for a person, humiliation and abuse by police, and for children and adolescents – being bullied by peers (Kidd & Witten, 2007/2008). Verbal harassment may come with the very real threat of escalating into physical harassment and assault (Roberts, 2006). In the LGB population, there is research addressing battering and verbal abuse among same-sex partners. Balsam (2001) and Balsam and Syzmanski (2005) report a link between domestic violence, homophobia, and minority stress in lesbian relationships. The authors define battering as a form of physical violence which results in the enhanced control of the batterer over the recipient.

While methodological weaknesses in the existing body of research result in a wide range of estimates on physical and verbal abuse within lesbian relationships, in their review Burke and Follingstad (1999) and Roberts (2006) found concurrence in the fact that physical battering is frequently preceded by verbal abuse. Balsam, Rothblum, and Beauchaine (2005) report that their LGB participants reported more childhood psychological and physical abuse by parents or caretakers, more childhood sexual abuse, more partner psychological and physical victimization in adulthood, and more sexual assault experiences in adulthood. In their qualitative study on lesbian, bisexual, and transgender survivors of domestic violence, Bornstein, Fawcett, Sullivan, Senturia, and

Shiu-Thornton (2006) report low levels of awareness about LBT domestic violence among the participants of their study. Brown and Groscup (2009) report that crisis center staff perceive same-sex domestic violence as less serious than heterosexual domestic violence and as less likely to get worse over time. The lack of awareness in the community coupled with an alarmingly high level of domestic violence among lesbians is conceptualized by Balsam and Szymanski (2005) as a result of LGBT oppression in the form of society's misogyny, homophobia, and transphobia. As Pharr (1997) explained:

> There is an important difference between the battered lesbian and the battered non-lesbian: The battered non-lesbian experiences violence within the context of a misogynistic world; the lesbian experiences violence within the context of a world that is not only woman-hating, but is also homophobic. (p. 204)

Domestic violence among GBT persons may be conceptualized in the same manner, that is, as having a contextual relationship to societal homophobia and transphobia.

Kidd and Witten (2007/2008) suggest that anti-LGB hate crimes are a bridge to understanding antitransgender verbal abuse, harassment and violence. Early prevalence surveys of anti-LGB violence consistently report a high frequency of the experience of hearing hate speech. D'Augelli (1989) found nearly three-fourths (75%) of a sample of 125 lesbians and gay men had experienced hate speech. In a national survey Comstock (1989) reported that "slightly more than one-half of socially active lesbians and gay men (i.e., those who frequent those meeting places in which survey questionnaires are typically distributed) have experienced some form of anti-gay/lesbian violence" (p. 101). The results of Comstock's survey notes that "the percentages of lesbians and gay men of color experiencing violence in all categories, except for being spit at and

vandalism/arson, are greater than for white respondents" (p. 103). Anagnostopoulos, Buchanan, Pereira, and Lichty (2009) find that gender-based bullying is the most common form of violence encountered by students in U.S. public schools. Rivers (2004) reports on the long-term implications of school bullying for LGB minority students. The researchers found school staff members to be ambivalent about their responsibility toward LGBT targets of bullying.

Witten and Eyler (1999) state that "violence against both male-to-female and female-to-male cross-dressers, transgenders and transsexuals frequently bears great similarity to anti-homosexual hate crime" (p. 466). Kidd and Witten (2007/2008) purport the similarity of LGB and transgender groups as targets of such hate and violence "is rooted in the commonality of transgression of traditional gender norms, whether this takes the form of same-sex sexual intimacy or non-normative gender identity" (p. 38) (personal communication, S. P. Minter, 2007). Denny (2007) proposes that transgender groups are similarly targets of hate actions and anti-gay speech because of perpetrator ignorance about human sexual orientation and gender identity diversity, citing incidents of violence where the perpetrator used homophobic slurs during violent incidents ("faggot", "dyke", "and "queer"). Denny speculates that the perpetrators had no vocabulary to express transgender hatred.

Kidd and Witten (2007/2008) note that "the overt actions and speech of perpetrators of anti-gay and anti-lesbian hate violence resemble those of anti-transgender offenders" (p. 37). Based on the extreme level of violence often used in attacks against transgender victims, Kidd and Witten (2007/2008) concluded that perpetrators of such hate crimes are motivated by a compelling desire to annihilate the transgender person in

an effort to dispel their revulsion over what they perceive as gender-role transgression and betrayal of societal norms. Witten and Eyler (1999) report that transgender hate crime victims, after being victimized, are less likely to follow up with legal services or medical care, noting similarities among gay and transgender hate crimes are "rooted in the commonality of the two groups' transgression of traditional gender norms" (p. 38). Rubenstein (2002) suggests an explanation for why the legal reporting rates are low, stating that "the sexual orientation laws are new and usage might increase as covered individuals become increasingly aware of their rights" (p. 72). Kidd and Witten (2007/2008) believe that reporting and medical follow-up rates may differ between anti-LGBT hate crimes and other types of hate crimes "because LGBT victims must essentially "come out" before reporting an anti-LGBT hate crime" (p. 38). Further, transgender victims may not wish to legally report violent hate-crimes or pursue medical follow-up due to the risk of encountering severe bias by legal and medical personnel. Witten and Eyler (1999) suggest that transgender victims are "more likely than non-transgendered peers to experience multiple forms of violence and victimization across the lifespan" (p. 463) and that "recovery following anti-transgender attacks may also be complicated by prior victimization at other times during the lifespan" (p. 466).

There are many sub-populations within the transgender community (Smith et al., 2005b). FtM individuals "pass" well, other than being somewhat typically shorter in stature. Yet, in one of the first surveys of FtMs with regard to violence, almost 70% reported some form of abuse within 11 categories with a range from verbal harassment to extreme violence and rape (Denny, 2007). According to numerous publications by the International Gay and Lesbian Human Rights Commission and the New York-based

organization Human Rights Watch, violence against transgender people is pandemic, spanning the globe, and found in all cultures, continents, and in all languages. Denny (2007) discusses the challenges anti-transgender violence presents to the pursuit of universal civil liberties, naming case studies which evidence the global epidemic of anti-transgender violence.

The health care industry participates in transgender abuse. The Gay and Lesbian Medical Association (2010) and Belongia and Witten (2006) point out, the federal government makes the LGBT population invisible by silently sanctioning anti-LGBT discrimination and abuse in healthcare. Kidd and Witten (2007/2008) demonstrate the exclusion of transgender identities in health care legislation. Greenberg (1998) describes health care system abuses experienced by many transgender individuals for example, being placed in psychiatric hospitals, mandated to reparative psychotherapy to change them, and forced to have surgery in the case of intersex identification. Witten (2004) reports, in a recent survey of healthcare students at an American southwestern university, that "a number of them express vehement emotions concerning the concepts of gender and sexuality" (p. 234). They made statements such as "God in the book of Genesis made 'Adam and Eve' not 'Adam and Steve'!" (p. 234); "If you were born a woman, you're a woman, if you were born a man you're a man. That's that" (p. 234); and, "Biology teaches us that men are XY and women are XX. There are no other possibilities, anything else is sick!" (p. 234).

Herek, Cogan, and Gillis (2002) suggest that hate crimes serve to preserve and reinforce the gender binary through the punishing of those individuals who transcend or who do not adhere to the two-gender system. Minter (2006) proposes that transgender

people are victimized for violating societal gender norms that dictate the two-gender-only binary system. Minter (2006) offers clarification on the relationship between the transgender and the LGB community, enumerating the many vulnerabilities that exist for transgender people:

> In contrast, many transgender people consider the gay community to be their only viable social and political home. In part, this is because a sizable percentage of transgender people also identify as lesbian, gay, or bisexual. More fundamentally, it is because homophobia and transphobia are tightly intertwined, and because antigay bias so often takes the form of violence and discrimination against those who are seen as transgressing gender norms. Gender nonconforming people consistently have been among the most visible and vulnerable members of gay communities--among the most likely to be beaten, raped, and killed; among the most likely to be criminalized and labeled deviant; among the most likely to end up in psychiatric hospitals and prisons; among the most likely to be denied housing, employment and medical care, among the most likely to be rejected and harassed as young people; and among the most likely to be separated from their own children. Perhaps because of these vulnerabilities, transgender people were also, as it turned out, the most likely to fight back at Stonewall--that moment of explosive rage in which a few transvestites and young gay men of color reshaped gay life forever. (p. 142)

According to Bradford, Ryan, and Rothblum (1994), the consequences of anti-transgender hate violence, abuse and harassment are both short and long term. Fear and trauma, in addition to physical injury, can interfere with a transgender person's ability to

perform their daily functions and activities. Herek et al. (2002) compared all LGBT hate crimes as a form of terrorism affecting groups of people who may feel forced to behave according to the gender and sexual orientation binary for fear of being perceived as LBGT. Kidd and Witten (2007) define violence and hate crimes against transgender communities as a "global pandemic of focused prejudice. We point out it can be viewed not only as an extremely serious and immediate public health problem, but also as genocide against a consistently invisibilized minority population." (p. 31).

Several conclusions may be drawn from the literature available on anti-transgender violence, abuse, and harassment. First, transgender identified people are subject to a lifetime of repeated exposure to harassment, verbal abuse and violence which are likely to be unreported to authorities for fear of further abuse and humiliation by those who are supposed to protect them (Lombardi, 2001). Second, a large segment of the transgender population are of low socioeconomic status and have less access to medical care and social support services (Lombardi et al, 2001). This socioeconomic status increases their risk for engagement in prostitution, drug dealing, drug abuse, alcohol abuse, and other survival activities placing them at increased risk for victimization by the law enforcement system (Lombardi, 2001; Nadal, Davidoff, & Fujii-Doe, 2014).

Based on evidence of global hate violence against transgender persons, there has been a call for research to investigate anti-transgender hate violence, and to develop and provide access to health care and support for victims of transgender hate violence (Kidd and Witten, 2007/2008). Statistics have begun to be collected for transgender hate crimes and disseminated internationally so the international community may begin to recognize the seriousness and pervasiveness of the problem. Kidd and Witten (2007/2008) describe

the problem as meeting the criteria for genocide as defined by the Convention on Prevention and Punishment of the Crime of Genocide (Article II, a and b).

Minority Stress

The concept of minority stress is not based on one theory, but is inferred from several social and psychological theoretical orientations (Meyer, 1995, 2003). Sociologists Durkheim (1951), Murton (1968), and Moss (1973) have described alienation and tension between individual needs and social systems. Lazarus and Folkman (1984), Mirowsky and Ross (1989) and Pearlin (1989) discuss conflict between individuals and the dominant social structure as the essence of all social stress. For minority individuals living in a stigmatizing, discriminating social system, the stress resulting from this conflict may be much more pronounced. Allport (1954); Goffman (1963); Jones et al., (1984); Dohrenwend et al. (1992); Crocker, Major, and Steel (1998); Link and Phelan (2001) discuss the adverse effect of stigma and prejudice upon the lives of minority people and groups. Brooks (1981) defines minority stress as psychosocial stress derived from minority status:

> The initial cause of minority stress is the cultural ascription of inferior status to particular groups. This ascription of defectiveness to various categories of people, particularly categories based on sex, race, and sociosexual preference, often precipitates negative life events for the minority member over which the individual has little control. (p. 71)

Meyer (1995, 2003) defines minority stress theory as an elaboration of social stress theory. Minority stress theory was developed to distinguish the higher levels of stress people from stigmatized social groups are exposed to because of their minority status.

Meyer (2003) presents the model of LGB minority stress as encompassing "stress processes, including the experience of prejudice events, expectations of rejection, hiding and concealing, internalized homophobia and ameliorative coping processes" (p. 674). Many researchers have since addressed minority stress within the LGB population and within other minority populations, applying and adapting Meyer's minority stress model.

DiPlacido (1998) attributes higher levels of stress experienced by the LGB population to living in a heterosexist and homophobic society. Waldo (1999) utilized the minority stress model to develop models of antecedents and outcomes of heterosexism in the workplace, finding support for minority stress theory. Lewis et al. (2003) suggests the construct of "gay-related stress" (p. 716) is critical for understanding the phenomenology of stress for LGB individuals.

There are several studies revealing distinctive sources of stress for transgender people. Gehring and Knudson (2005) report higher prevalence of childhood unwanted sexual events before the age of 18 among a sample of transsexual individuals. Wojdowski and Tebor (1976) detail the social and emotional conflicts among transsexuals during the "passing phase" prior to sex change surgery. They document a complex process of stigma management and chronic tension and stress that leads to chronic depression. Burgess (2000) explores the internal and external stress factors associated with the identity development of transgender youth.

Rostosky, Riggle, Gray, and Hatton (2007) tested the minority stress model as applied to LGB individuals. The authors concur with Meyer (2003), suggesting that minority stress is composed of five factors: (a) experiences of discrimination, (b) anticipated rejection, (c) hiding and concealing their identities, (d) dealing with

internalized homonegativity, and in response to these four factors, LGB individuals develop the fifth factor, (e) coping strategies.

Researchers and writers articulate the unique experiences of transgender persons, which this writer finds to be resonant with the five factors of the minority stress model. For example, in support of the first factor, Predrag (2003) demonstrates that discrimination against transsexuals is a universal social condition. For the second factor, expectations of rejection and discrimination, Pinel (1999) identifies and describes the expectation that an individual will encounter prejudice and discrimination as a result of stigma, a common experience among LGBT individuals who live in a heterosexist society. In support of the third factor, hiding and concealing one's identity, Lindquist and Hirabayashi (1979) described gay-related stress as stress due to minority marginalization, suggesting unlike members of other minorities (ethnic, racial), gay men and lesbians may easily hide their minority status. Although this may be either a similar or a different process for transgender individuals, Hunter and Schaecher (1992) report on the stress resulting from harassment and violence toward those who cannot hide their gender identity. The fourth factor in the minority stress model, internalized homonegativity (for the transgender population "transnegativity") is supported by Nemoto et al, (2004) who found that internalized transphobia, like internalized homophobia, is a psychological liability implicated in health risks. The fifth factor of coping strategies is addressed by Dean et al. (2000) who found that LGBT engagement in active coping counters harmful effects of negative social stressors.

The definition of social support provided by Cohen and Wills (1985) includes the provision of psychological and material resources, which may serve as a buffer against

stress through (a) the appraisal of a situation as less stressful to begin with, or (b) by the provision of a solution to a stressful problem through normalizing, or (c) by the facilitation of a healthy behavioral response. Strazdins and Broom (2007) state that social support helps people handle stress and distress, and increases their feelings of happiness, love, pride, and belonging in both the recipient and the giver. When people receive *support*, they are more likely to recover from illness and have improved immune function, better mental health, and lower mortality (Uchino, Cacioppo, & Kiecolt-Glazer, 1996). Thoits (1986) states that social s*upport* can assist with coping during adversity, buffering the impact of life events, stresses, and chronic problems. Wright (2006) found support for the hypothesis that social support correlates positively with mental and physical health outcomes—interestingly, "indicators of social support show stronger association with mental health outcomes than with physical ones." (p. 15).

The notion of social support as a mediator between minority stress and mental health variables has received considerable attention in other populations (Simoni et al., 2007); less attention in the LGB literature (Potoczniak, Aldea, & DeBlaere, 2007; Vincke & van Heeringen, 2002), and even less in the literature for the transgender population (Masequesmay, 2003). Dean et al. (2000) discuss LGBT engagement in active coping to counter harmful effects of negative social stressors. Many researchers have demonstrated the relationship between minority status and stress as well as factors of active coping style, group cohesiveness and strength of group identification (also known as collective self-esteem), which provide a protective effect for minority members against negative mental health consequences. Wei, Ku, Russell, Mallinckrodt and Liao (2008) found along with self-esteem and perceived discrimination, "active" or "reactive" coping is associated

with lower depressive symptoms and “avoidant” or “suppressive” coping predicts higher levels of negative well-being and depression. Researchers of LGBT minority stress have emphasized the importance of coping style, social support and self-esteem and psychological distress.

In a within group study, Selvidge, Matthews, and Bridges (2008) found that lesbians and bisexual women with flexible (a wide variety of) coping styles had positive psychological adjustment, emphasizing the association between well-being and coping. Szymanski (2009) researched the moderating role of avoidant coping, social support and self-esteem among gay and bisexual men, finding that participants may have developed an avoidant coping style growing up in their families as a strategy to cope with the stress of perceived heterosexist events (rejection, harassment, discrimination). Sanchez and Vilain (2009) conducted a study on coping and collective self-esteem with MtF transsexuals. The authors report results consistent with results shown about other minority groups. They found that not only does fear about one’s transgender identity and negative feelings about the transgender community predict higher levels of psychological distress, but they reaffirm that stress related to stigmatization has an adverse effect upon mental health.

Dean et al. (2000) discuss the large gap in the literature for transgender youth, stating the literature does not distinguish them from lesbian and gay youth. The authors report that transgender youth are relatively invisible as they attempt to blend in with non-transgender peers to avoid physical and emotional abuse and harassment, which are prominent. Isolation keeps many transgender youth from seeking mental health and medical care. Cohen-Kettenis and van Goozen (1997) found that severely gender

dysphoric transsexual youths treated with hormone therapy at the Amsterdam Gender Clinic pass easily as members of their appropriate gender and suffer less stress as adults.

While the stress experienced by LGBT people, and specifically transgender people, presents major roadblocks to well-being, there is the possibility of attenuating stress through active coping, community affiliation, transgender-positive community health programs (Xavier, 2000). With increased inclusion of LGBTI content in curriculum and training in psychology and health training programs, issues of homophobia and transphobia, gender socialization processes, and gender identity development can be addressed (Carroll et al., 2002). Academic silence about LGBTI issues contributes to the perpetuation of heterosexism and the oppressive gender binary through the reinforcement of heterosexist values and views (Weinstock, 2003). As Weinstock notes, analysis of LGBTI-related issues provides students an opportunity to reflect critically on the ways psychological theory, research and clinical practice have been shaped by heterosexist assumptions and privileges.

Mental Health

Stress researchers (Aneshensel, 1992; Coyne & Downey, 1991; Kessler, Price, & Wortman 1985; Thoits, 1983, 1995) are aware that stress does not "cause" mental illness, but chronic exposure to stress does increase the risk of experiencing mental health problems. While there are limitations to the correlational methods employed in research on the connection between social stress and mental health, experimental laboratory approaches have proved too contrived and trivial compared to the stressful events in real life outside the laboratory (Thoits, 1983). Studies using a longitudinal survey design demonstrate a positive relationship between exposure to major life events (Aneshensel &

Frerichs, 1982; Ensel & Lin, 1991) or chronic stress (Aneshensel, 1985; Pearlin & Lieberman, 1979) and emotional distress and depression. Aneshensel (2006) explains longitudinal survey research has been richly informative about the impact of stress on mental health. Heterogeneity of samples permits multivariate controls for the impact of sociodemographic and economic factors (Aneshensel, 2006). Longitudinal stress research has demonstrated that chronic life stress has a detrimental effect on psychological well-being (Aneshensel, 2006).

There are many different types of stressors different groups in society are exposed to, such as those uniquely experienced by LGB and transgender individuals (Meyer, 2013) There are many different mental health outcomes that can be studied when examining the relationship between stress and mental health, including emotional distress, substance abuse, and affective disorders. This study will investigate existing levels of minority stress and mental health problems (i.e., depression, suicidality, substance abuse, and anxiety) in a sample of transgender individuals.

Historically, shifts in the social environment have confused research initiatives on mental disorders within the LGB population (Meyer, 2013). Prior to homosexuality being declassified as a mental disorder in 1973 in the *DSM*, those who refuted arguments that homosexuality should remain classified were in the minority. A significant number of research studies demonstrating that homosexuality should be listed in the DSM as a mental disorder were based on biased samples, such as samples taken from prison populations or were subjectively interpreted psychoanalytic observations, although Evelyn Hooker's (1957) studies found that heterosexual and homosexual subjects could not be distinguished by their projective tests. Saghir, Robins, Walbran, and Gentry

(1970a, 1970b) using criteria-defined assessment methods rather than psychiatric symptom scales, found no significant differences between homosexual and heterosexual participants. Likewise, Gonsiorek and Rudolph (1991), Marmor (1980), and Stein and Cabaj (1996) concluded that compared with heterosexuals, homosexuals did not have abnormal psychiatric profiles. However, despite the general conclusion that homosexuality in and of itself is not associated with elevations in psychiatric symptomatology, slight elevations among LGB people (Gonsiorek & Rudolph, 1991; Marmor, 1980) have been attributed to minority stress.

It has long been argued that minority stress explains the high rates of emotional distress found among LGB individuals. The relationship between minority stress and emotional distress has been discussed for both LGB adults (DiPlacido, 1998; Garnets & D'Augelli, 1994; Garnets, Herek, & Levy, 2003; Meyer 2003, 2005, 2013) and for LGB youths (D'Augelli, 1989; Martin & Hetrick, 1988; Savin-Williams, 1994). Meyer's (2003) meta-analysis of the prevalence of mental disorders in LGB people strongly supports other researchers' results (Gonsiorek & Rudolph, 1991; Marmor, 1980; Saghir et al., 1970a, 1970b) that LGBs had slight, but not abnormally elevated psychiatric symptomatology compared with heterosexuals. Meyer (2003, 2013) states this conclusion has frequently been restated and shows wide acceptance in the most current literature. However, a shift in the scientific discussion on the minority stress hypothesis has arisen (Bailey, 1999; Dean et al., 2000; Krieger & Sidney, 1997; Mays & Cochran, 2001; Meyer, 2001; Rosario, Rotheram-Borus, & Reid 1996) claiming that homophobic, discriminatory and stigmatizing social conditions lead to poor mental health outcomes and increased risk of mental disorders and suicide for LGB people. Dohrenwend (2000)

states that social stress contributes to psychiatric disorder through excessive exposure to risk, and leads to excess in morbidity.

It is important to continue to examine whether the social stress imposed by minority stressors adversely affects LGBT people, and specifically, the well-being and mental health of transgender people. Despite the fact that the transgender community positions itself separately from the gay world, little empirical research has examined the hypothesized relation between minority stress and emotional distress for transgender individuals (McCarthy, 2003; Mitsuhaski, 2006). Although there is no comparison group in this study, hypothetically I expect transgender minorities, though exposed to unique stressors, may have similar results on dependent measures compared to those of LGB individuals and possibly other minorities (ethnic and racial), in support of the minority stress model.

Discrimination against LGBT people may have a potent negative effect upon the mental health of LGBT minorities (Mays & Cochran, 2001; Meyer, 2003). Sodomy laws criminalizing homosexuality were used to justify discrimination against LGBT people until mid-2003, when the laws were overturned by the U.S. Supreme Court. Nevertheless, insurance companies, hospitals, and health clinics continue not to recognize LGBT relationships as legitimate family structures and deny LGBT families equal privileges as heterosexual families (Herek, 2007). Krieger (2000) argues that discrimination can occur on multiple levels: legal and illegal, overt or covert, institutional and interpersonal discrimination.

One repercussion of discrimination in healthcare is difficulty conducting research in the transgender community (Bockting & Avery, 2005). With low levels of trust for

professionals, transgender individuals often fear being pathologized and exposed to transphobic attitudes (Bockting & Avery, 2005). Researchers outside the transgender community are likely to have difficulty engaging participants due to lack of experience and understanding about their subjects (Paxton, Guentzel, & Trombacco, 2006). Bockting and Avery enumerate the challenges developing a relationship with members of the transgender community in their study of a large urban city's transgender community. The researchers found race, class, and varying gender identity diversities of the community remarkable, relating these diversities to the challenge of understanding the needs of transgender communities.

The Transgender Health and HIV Prevention Needs Assessment Studies from Transgender Communities across the United States, (Bockting & Avery, 2005) assessed mental health issues within transgender communities in major urban environments of San Francisco, Houston, Boston, Washington, D.C., Chicago, Minneapolis/St. Paul, and Philadelphia. These studies consistently reported finding high levels of social and economic stress, depression, suicidal ideation, substance abuse (including illicit hormones and silicone), violence, and low levels of social support, trust of health professionals, safe sex practices, knowledge about transgender-specific health and prevention services, and lower utilization of mental health (psychological counseling, substance abuse treatment) and social services than for basic medical care. The authors call for intervention and research to address health and mental health needs of transgender people and to promote their health and well-being.

Bieschke, McClanahan, Tozer, Grzegorek, and Park (2000), Cochran, Sullivan, and Mays (2003), and Jones and Gabriel (1999) report that LGB clients participate in

therapy more frequently than heterosexual clients. Researchers suggest part of an explanation for this pattern may be that excessive distress is created by both the social stigma and stress associated with a minority status sexual orientation (Cochran, Sullivan, & Mays, 2003). Accounts of heterosexual bias in treatment, articles in the professional literature advocating conversion therapy, absence of quality training on LGBT issues in professional graduate programs, and lack of affirmative clinical supervision are some of the problems that need to be addressed by the health care professions to meet the standard of care in clinical research, training, and psychotherapy for the LGBT population (Beckstead & Israel, 2007; Pachankis & Goldfried, 2004).

The Biopsychosocial Model

The biopsychosocial model (Engel, 1977) identifies biological, psychological, and social factors as interrelated influences on human health and illness. The term patient-centered-care (McWhinney, 1972) had been used earlier as a reminder of the patient's personhood and the need for care to be organized around the patient's needs, presences and values. The biopsychosocial model is a vision and an approach to practice (Epstein & Borrell-Carrio, 2005) rather than an empirically verifiable theory, a coherent philosophy, or a clinical method.

Engel (1980) criticizes the biological model as a reductionist philosophy that frequently ignores or minimizes important psychological and social differences among people who have the same diagnosis, leading to errors in evaluation and treatment. In contrast, Engel's (1977) biopsychosocial approach understands a patient's functioning in light of contextual factors such as the patient's culture, coping resources, relationships with significant others, and social adjustment. This model has great potential for

understanding minority mental health. The model has been applied to studying the pervasive effects of racism in African Americans (Clark et al., 1999) and Native Americans (Belcourt-Dittloff, & Stewart, 2000).

Melchert (2007) identifies the biopsychosocial model as a new paradigm in professional psychology, developing from the need for evidence-based practice. The model is a basic framework representing a shared, common and systematic approach about the nature of the scientific foundations of the field of psychology. Melchert states that because of the complex biopsychosocial nature of human beings, a comprehensive, integrative approach to understanding human psychology is an approach superior to the individual theoretical orientations that have proliferated. Given the eclecticism of the majority of clinical psychologists (Norcross, 2005), there is evidence that individual theoretical approaches have been limited, and less than satisfactory in explaining human behavior. Johnson and Radcliffe (2008) recognize that the biopsychosocial model of health is a model which places increasing emphasis on the role of culture in psychological health for people living in the United States. Culture includes race, ethnicity, immigration status, social class, gender and gender identity, sexual orientation, religion, physical disability, chronological age, and developmental age.

Susman (2001) discusses recent developmental science perspectives about the neurobiology of mind-body interaction, the concept of stress, and the importance of integrating biological and psychological processes. An important component of the biopsychosocial model is a consideration of the dynamic bidirectional influences between experience and behavior (Susman, 2001). The biopsychosocial model's premise is that psychology, biology and context are integrated rather than separate dualistic systems, and

bidirectional rather than unidirectional as a model of development (Susman, 2001)). Through empirical research Susman and Finkelstein (2001) find that the role of individual differences in stress reactions provides evidence for the dynamic interaction between emotions and biological stress responses. Developmental theorists Magnusson (1997) and Cairns (1997) propose that individuals develop and function psychologically as integrated organisms. The integration of biological, psychological, and contextual processes is supported in findings from both animal and human-model studies (Susman and Finkelstein, 2001).

The biopsychosocial approach informs the approach to this study and contributes to a more comprehensive understanding of the different contexts of minority stress. The biopsychosocial approach within clinical psychology, psychiatry, and health psychology finds stress to be a compelling factor in the etiology of mental health problems such as depression, suicide and suicidal ideation, anxiety, and substance abuse (Hales, Yudofsky & Gabbard, 2008). The authors explain that in the biopsychosocial model, the *meanings* of an individual's sexual orientation or gender identity will be shaped by cultural factors and need to be understood as such. For transgender people, who have unique experiences in terms of minority stress, the biopsychosocial model offers an integrated, multidimensional approach for use in research, theoretical development, and applied clinical healthcare for this population.

Positive Psychology

On the horizon of the 21st century is a new view of mental health – positive psychology. Moving past the post-World War II disease model, positive psychology seeks a paradigm change from a deficit model of repairing illness to a competency model

of building mental health and strength (Seligman & Csikszentmihalyi, 2000). Positive psychology is a model of mental health that may be a useful clinical approach with LGBT minorities because of its emphasis on prevention through building positive human traits that help individuals and communities to grow and flourish. Positive psychology emphasizes the deconstruction of the illness model of the Diagnostic Statistical Manual, and focuses on human strengths, resilience, and the adaptive potential of coping (Seligman, Steen, Park, & Peterson, 2005). The model of positive psychology emphasizes that human strengths act as buffers against mental health problems (Seligman & Csikszentmihalyi, 2000). Positive psychology's focus on the ingredient of subjective well-being, defined as a person's cognitive and affective evaluations of their life may provide a useful, broad phenomenological framework within which to work with transgender individuals and groups (Diener, Lucas, & Oishi, 2005).

Positive psychologists Masten, Cutuli, Herbers, and Reed (2009) suggest resilience in development is protective factor, arising from human adaptation systems. While the idea of individual resilience in the face of adversity is an historic concept, positive psychology has taken a renewed interest in the models, methods and data and the implications for theory, research and intervention on the topic of resilience (Masten et al., 2009). Given that LGBT individuals are believed to be at higher risk for mental health consequences due to stressful life events which are part of minority stress, the approach of positive psychology appears to be a "good fit" as an approach for psychologists who work with members of this population.

Homophobia/Biphobia and Transphobia

Homophobia/Biphobia

Rosser, Bockting, Ross, Miner, and Coleman (2008) note that "while self-identification as gay or lesbian indicates a degree of self-acceptance, it does not leave the individual immune to the prevalent external societal homonegativity" (p. 189). It is very likely that this dynamic exits for the transgender individual against the effects of transphobia. The term *homophobia* was created by Weinberg (1972) to describe the phenomenon of fear of being in close physical proximity with homosexuals. Author and activist, Audre Lorde (1984) defines homophobia as the belief in the inherent superiority of one pattern of loving and thereby the right to dominance, the fear of feelings of love for a member of one's own sex, and the hatred of those feelings in others. Similarly in gay people, self-loathing is termed *internalized homophobia*. For bisexual people, the term *biphobia* describes negative attitudes about bisexuality and bisexual individuals (Bennett, 1992). Ochs (1996) described the denigration bisexuals face as "double discrimination" (p. 217), suggesting that bisexual people face heterosexist attitudes not only from the straight mainstream community but also from the gay and lesbian communities as well.

The literature on homophobia is far more developed and in far greater number than the literature covering transphobia. A review of the existing literature on homophobia and transphobia suggests that both societal (external) and internalized transphobia and homophobia have significant health and mental health effects. The most salient consequence of societal homophobia and transphobia is violence, which ranges from harassment to homicide (Lombardi, et al, 2001; Hill & Willoughby, 2005). The

literature suggests a relationship between internalized homophobia/transphobia and domestic violence (Bornstein et al., 2006; Ross & Rosser, 1996). Hill and Willoughby (2005) recount anecdotal evidence demonstrating the pervasiveness of anti-transgender sentiments throughout Western culture.

Transphobia

Transphobia refers to the irrational and unfounded fear, hatred of, and discriminatory prejudice against transgender persons, i.e., people who transgress the boundaries of the binary gender model, based on their expression of their internal gender identity (Nagoshi et al., 2008). Forms of transphobia include direct forms such as harassment, assault or murder, or indirect forms such as refusing to support non-discrimination policies, or refusal to support the provision of services or employment to transgender persons (Hill & Willoughby, 2005). Sugano et al. (2006) conducted an epidemiological study to examine the relationship between exposure to transphobia and HIV risk (measured by reports of engaging in unprotected receptive anal intercourse). The authors found a difference in HIV risk based on age (younger adults are at higher risk than older adults), strength of gender identity (self-acceptance), ethnicity, self-esteem, social support, and level of depression. A higher number of participants reported childhood verbal and physical abuse compared to their reported adulthood abuse. Over half reported leaving their family and friends because of their transgender identity. A high proportion of participants reported economic discrimination because of transgender identity. Sugano et al. (2006), Clements-Nolle et al. (2001), Kellogg et al. (2001), Kenagy (2002), Modan et al. (1992), Nemoto, Luke, Mamo, Ching, and Patria (1999), Sykes (1999), and Xavier and Simmons (2000) discuss and theorize about the effects of

transphobia upon transgender individuals. Sugano et al. (2006) state that "exposure to transphobia manifests itself through experiences with discrimination in applying for employment and housing, violence, harassment, and barriers to health care" (p. 217).

Like biphobia, transphobia shares many of the characteristics of homophobia. Adapting Blumenfeld's (1992) framework for homophobia, there are four distinct yet interrelated levels of homo-, bi-, or trans- phobia: Personal, interpersonal, institutional and cultural, societal, or collective. According to Blumenfeld, personal transphobia would refer to an individual's belief system (prejudices) about transgender individuals. Interpersonal transphobia would be evident when personal transphobia transforms into discriminatory behavior. Institutional transphobia would be observed in the manner in which government, business, religious, educational, and professional organizations systematically discriminate against transgender persons. Lastly, cultural, societal or collective transphobia would refer to the social cognition that influences attitudes towards transgender persons. As Kirk and Kularni (2006) explain, a society that is transphobic typically condones and promotes a variety of behaviors ranging from simple discrimination in employment and housing to acts of cruelty, intolerance and prejudice such as verbal harassment, vicious sexual and physical assaults, withholding life-saving emergency treatment, and outright murder. In a transphobic society, transpeople often live in fear for their lives, especially those who do not "pass" well (Kirk & Kularni, 2006).

Internalized Homophobia and Internalized Transphobia

According to Shidlo (1994), the construct of internalized homophobia can serve as a central organizing concept for LGBT affirmative psychology and is a significant

developmental event in the lives of almost all LGBT people who are raised in a heterosexist and antigay social environment. Internalized homophobia has been identified as a minority stressor, and a frequent cause of psychological distress for LGBT people (Frost & Meyer, 2009). Meyer (2003) concludes that internalized homophobia represents an insidious form of stress derived from the gay person's adopting and directing society's negative attitude about homosexuality toward the self. Meyer and Dean (1998) conclude that internalized homophobia leads to internal conflict and low self-esteem.

Internalized homophobia/transphobia is a factor in HIV risk behavior, depression, anxiety, and suicidal ideation and suicide attempts (Abelson, Lambevski, Crawford, Bartos, & Kippax, 2006; Igartua, Gill, & Montoro, 2003; Meyer, 2003; Sugano et al. 2006; Szymanski et al., 2001). Eric Nicely (2001) found higher rates of internalized homophobia for alcoholics than non-alcoholics. Frock's study (2000) with a lesbian population found a strong correlation between psychological distress, depression and general internalized homophobia. Szymanski and Kashubeck-West (2008a) examined the relationship of internalized homophobia and psychological distress in lesbian and bisexual women, finding that internalized homophobia is a significant predictor of psychological distress accounting for 17% of the variance.

Ross and Rosser (1996) completed a factor analytic study of internalized homophobia with gay men from which they developed a scale for the measurement of internalized homophobia. They measured correlates of internalized homophobia reporting the four following factors: "(1) Public identification as gay, (2) Perception of stigma associated with being gay, (3) Social comfort with gay men, and (4) The moral and religious acceptability of being gay" (p. 18). The authors found these four factors were

significantly associated with concealment of/openness about sexual orientation, HIV serostatus, and duration of relationship, relationship satisfaction, and social support (membership in gay/bisexual groups). The researchers concluded that internalized homophobia is a construct measureable with four factors that correlate significantly with "low disclosure, shorter length of and satisfaction with relationships, lower degree of sexual attraction to men and higher degree of attraction to women, and lower social time spent with gay people" (p. 15).

Shidlo (1994) explains the influence of internalized homophobia in the lives of lesbians and gay men:

> (1) it is suggested to be a developmental phenomenon that all lesbians and gay men experience to varying degrees as a result of living in a homophobic and heterosexist society; (2) it is associated with a variety of psychosocial problems, such as depression, low self-esteem, and difficulties developing and maintaining intimate relationships; (3) its examination and/or amelioration is often an important goal in therapy; and (4) it can serve a heuristic purpose, i.e., organizing factors unique to lesbians and gay men in the areas of psychosocial development, prevention of psychological distress, and counseling. (Szymanski & Chung, 2003, p. 116).

Malyon (1982) discusses the profound influence of internalized homophobia stating that "it influences identity formation, self-esteem, the elaboration of defenses, patterns of cognition, psychological integrity, and object relations" p. 60. Ross and Rosser (1996) report that the characteristics of internalized homophobia include "lower self-acceptance, lower ability to self-disclose to heterosexual and other homosexual persons (Kahn, 1991),

low-self-esteem, self-hatred, self-doubt, belief in one's inferiority, acceptance of popular myths about homosexuality, beliefs that others will be rejecting on the basis of one's sexuality, and self-imposed limits on one's aspirations (Cabaj, 1988)" (p. 16). Frost and Meyer (2009) found that "internalized homophobia was associated with greater relationship problems both generally and among coupled participants independent of outness and community connectedness" (p. 97).

Internalized transphobia is similar to internalized homophobia (Hill & Willoughby, 2005). Internalized transphobia is the turning of society's negative attitudes about gender non-conformity, against the self. Internalized transphobia, like internalized homophobia and biphobia, is a psychological liability, found to be implicated in health risks such as HIV and mental health (Diaz, Ayala, Bein, Henne, & Marin, 2001; Nemoto et al, 2004; Nungesser, 1983; Shidlo, 1994; Szymanski & Chung, 2001b). Thoits (1985) defines internalized homophobia as a process of self-stigmatization, which highlights the close relationship between the two concepts. The terms internalized transphobia and internalized homophobia are in wide use among clinicians when referring to the internalization of society's anti-gay and anti-transgender attitudes and the consequent integration of those attitudes into negative attitudes toward the self (Herek, Gillis, & Cogan, 2009; Peterson & Gerrity, 2006). Morris, Balsam, and Rothblum (2001) view internalized homophobia as a sign of the inability within a person's coming out process to protect oneself against stigma, especially in the early stages of acceptance of an LGB identity. The authors suggest that internalized homophobia exerts a powerful influence in a gay person's psychological adjustment over the lifespan due to the powerful influence of childhood socialization and continual exposure to homophobic and transphobic

attitudes. There is evidence that LGBT people maintain residual internalized homophobia/transphobia for their entire lives (Morris et al., 2001).

Transphobia in the Helping Professions

Traditionally, the research, assessment and treatment of gender dysphoria and gender variance have tended to pathologize transgender people (Raj, 2002). Raj suggests adopting guidelines to ameliorate "clinical transphobia" to optimize the recent trend toward a more respectful, collaborative relationship with transgender clients and the mental health community. Although the Bockting and Avery (2005) group of studies targeted a high percentage of a low-income transsexual population, the issue of transphobia is one that transcends demographics. All of the needs assessment studies conducted with transsexual participants in major U.S. cities, published by Bockting and Avery, found that participants reported poor quality of service within a transphobic health system. Participants reported frequent encounters where providers would not treat them, and attitudes that range from insensitivity to blatant lack of respect and hostility (Sperber, Landers, & Lawrence, 2005). Xavier et al. (2005) report many transsexuals who seek general health care markedly underreport their natal anatomy. Transphobia is pervasive societal problem that rests upon "gender fundamentalism" (Lombardi et al. 2001, p. 91) and antipathy toward the expression of gender identities that challenge society's gender binary as the norm.

Summary and Transition Statement

The theoretical framework of this dissertation is found in (a) the minority stress model, which hypothesizes that environmental adversity (stigma, violence/ discrimination) causes psychological stress; (b) the biopsychosocial approach within

clinical psychology which finds stress to be an important factor in the occurrence of psychopathology, such as depression, suicide, anxiety and substance abuse; and (c) positive psychology emphasizing the deconstruction of the illness model of the *DSM*; human strengths; resilience in development; and the adaptive potential of coping – attributes common within anecdotal accounts and the narratives of gender minority individuals; (d) The transgender model is a work-in-progress and has been one of the catalysts in the planning of this study.

The result of this literature review indicates a gap in the quality and amount of literature for the transgender population as compared to that for the LGB population. While researchers over the last decade or two have made progress in addressing the transgender population, the difficulties conducting research with this population leave us more with surveys, anecdotal information, single case, and narrative summaries than with empirical studies and research developed through methodologically sound approaches. This literature review illuminates both progress and absence of significant progress in research on gender identity variance, minority stress, and their relationship to minority mental health among the transgender population. The need for empirical research on topics exploring and defining transgender identities, and on psychological health variables for this population is imperative in order to collect valid data upon which to build the research database, and for the contribution to clinical work that meets the standard of care for this population.

In Chapter 3 to follow, I will describe the methods used to ascertain the relationship between minority stress and mental health within a transgender sample of the transgender population. I will describe the research methodology, the logistics and

justification for the research design, and the approach to the study. I will also describe the instruments, data collection tools, and the rationale for instrument selection. I will present a detailed description of the population from which the sample was drawn, the characteristics of the participants, and the eligibility criteria for selection. The size of the sample, power level and effect size will be given and defended. The statistical methods and software programs used to perform the data analysis will be presented. Demonstration of adherence to APA ethical guidelines for collection of data, retention and reporting of data, and the ethical protection of participants will also be provided.

Chapter 3: Research Design and Methods

Introduction

In Chapter 3, I will describe the methods used to examine the relationship between minority stress and mental health within a transgender sample of the transgender population. The chapter will include the methods used in the research in the context of the research questions and hypotheses. I conducted a quantitative study with an exploratory descriptive design, using parametric, inferential methods to test the hypotheses. The theoretical underpinnings of the study were found in the minority stress model (Meyer, 1995); the biopsychosocial model (Engel, 1977); and the positive psychology model (Allport, 1961; Maslow, 1971; Miller & Seligman, 1982; Ryff, 1985).

This chapter will be divided into several sections. In the first section, I will describe the research design and approach and–specifically, provide justification for the design and statistical analyses and proof that I derived the design from the problem statement. The second section will contain a detailed description of the setting, selection criteria for participants, and characteristics of the sample. The third section will include a detailed description and critique of the sampling model and sampling methods and an explanation for the calculation of the sample size, power, and significance level for the study. In the fourth section, I will describe the instruments and their psychometric properties, the materials and tools for data collection, data collection and scoring procedures, data analyses including description of data that comprise each variable, and data analytical tools including the location of tables of raw data. In the fifth section, I will present a description of the data collection and data analyses tools used in the study, including the nature of the scales for each variable, and statements of hypotheses related

to each research question. The sixth section will contain a summary of measures for the protection of participant's rights.

Research Design and Approach

In this study, I examined the relationship between three variables used in previous research on minority stress and mental health with gay men (see Meyer, 1995) and four mental health variables. I used an Internet-based survey approach to gathering data in this study. Invitations to participate in the study were sent to the online community and professional organizations for posting at their websites.

According to Lewis, Watson, and White (2009), Internet survey methods yield results at least as representative as traditional paper-and-pencil survey methods in psychological experiments. In addition to confirming their hypothesis of equivalence, they noted that their Internet sample was more diverse demographically, identifying Internet samples as a valid alternative for experimental research. Generalizability depends upon factors such as sample size and representativeness of the sample; causality is weak (Campbell & Stanley, 1963). According to LaCoursiere (2003), Campbell and Stanley's time-honored work on validity can still be utilized to identify external validity issues (generalizability); this is important to consider when conducting Internet studies. Online survey methods are cost-effective, a larger number of participants are easily accessed, and self-report measures are easily administered with structured questions and measures containing Likert scales (Farrell & Peterson, 2010). I obtained permission to recruit participants who visited the chosen transgender service organization websites from the moderators of the sites.

Internet-based research is supported by the American Psychological Society, whose website provides a link to Internet-based research projects ranging from traditional experiments in perception and sensation to topics in social psychology and personality assessment (https://psych.hanover.edu/aps/research.html). Many contemporary journals have begun to publish research conducted through Internet-based resources. One disadvantage of the online survey distribution method was related to self-report measures and the possibility of interpretation error or dishonesty by participants . Another disadvantage was selection bias – those who elected to participate in the study may differ significantly from those who did not elect to participate and those who did not have access to online sites. There was also the obvious liability that it may be possible for a hacker to succeed in obtaining illegal access to my data, which would have compromised the confidentiality and integrity of the study. The risk of computer hacking of encrypted data at the survey site or my computer was minimal, as the level of protections against hacking at the survey site were sufficient. My computer data file was sufficiently password protected.

I used the following tests in this study; discussion of their validity and reliability will be presented in the Instrumentation section later in this chapter:

- The Transgender Internalized Transphobia Scale
- The Stigmatization Scale
- Prejudice Events Questionnaire (Discrimination/Violence/Verbal Abuse)
- The Goldberg Depression Scale
- The Suicide Behaviors Questionnaire
- The Zung Self-Rating Anxiety Scale

- The Drug Abuse Screening Test
- Alcohol Use Disorders Identification Test

While none of the utilized measures have been validated specifically for use by a transgender group, the unaltered measures are valid and are in popular use in the research and screening for depression, suicide, anxiety, and substance abuse in other populations. See the appendices for the instruments and their adapted versions.

Because this study was exploratory, due to the sparse amount of literature on the topic of minority stress and mental health for the transgender population, I selected within-group approach. There is a long history of biased between-groups studies of mental disorder among the LGB population and heterosexuals (Meyer, 1995; Mustanski, Garofalo, & Emerson, 2010). A within-groups design provided a deeper, non-biased view of the correlates of mental health for the study sample. This design was a good fit for the purposes of the research, which was to examine the association between minority stress and mental health within a sample of the transgender population.

In this study, I utilized multiple regression and multivariate analysis to assess the association between three minority stress variables (internalized homophobia, perceived stigma, and prejudice events) and four mental health variables (depression, suicidal ideation, anxiety, and substance abuse). The assumptions of multiple regression – linearity, homoscedasticity and absence of multicollinearity – were assessed. An ANOVA *F* test and a *t* test were used to report collective and specific relationships for each predictor, respectively.

Setting and Sample

Setting

The study setting was the virtual on-line community of professional and community Internet sites, including the APA, the APA of Graduate Students, Division 44 (LGBT) of the APA, Division 17 (Counseling Psychology) of the APA, The Association of Women in Psychology in collaboration with Division 35 of the APA at POWR-L listserv website, WPATH, and Psychological Research on the Net (sponsored by Hanover College Psychology Department). I drew participants from the Internet sources and referrals from Internet sources.

Selection Criteria and Sample Participants

The participants for this study consisted of a volunteer sample of individuals. Participants were selected who were age 18 and older, who were able to give informed consent, and who indicated at least one of the following: (a) female gender assigned at birth and current self-identification as transgender female to male, transsexual female to male, FtM, or transman; or (b) male gender assigned at birth, and current self-identification as transgender male to female, transsexual male to female, MtF, or transwoman. Participants who indicated that their gender status was intersex were not included in the sample for the purposes of this study.

Sampling Method and Sampling Frame

I employed purposive, nonprobability, and snowball sampling methods utilizing convenience and judgment sampling to obtain participants. Although these methods do not lead to parametric representation, they were the best methods available for reaching a population that was less accessible and more difficult to find, specifically, the transgender

population. According to Birnbaum (2004) and Murero and Rice (2006), by conducting web research, Internet researchers can quickly and efficiently recruit specialized samples, standardize procedures, and make studies easy to replicate. These authors, among others, have found Internet findings are consistent with findings from traditional methods, concluding Internet methods contribute valuable data to many areas of psychology (Farrell & Peterson, 2010; Gosling, Vazire, Srivastava, & John, 2004; LaCoursiere, 2003; Pittenger, 2003; Riva, Teruzzi, & Anolli, 2004). An important advantage of Internet studies is that larger samples make statistical tests more powerful (Skitka & Sargis, 2006). Another advantage is the possibility to obtain a heterogeneous sample with respect to gender identification, race, nationality, education, age, and income (Birnbaum, 2004; Murero & Rice, 2006). Of the many techniques of conducting Internet research, in this study I recruited participants and obtained data by seeking the cooperation of community and professional organizations that had an Internet website and by posting the invitation to participate on the sites' electronic message boards or listservs, thus obtaining a larger number of participants than by traditional methods.

The snowball method is frequently utilized in the research of minority populations and in exploratory studies (Heckathorn, 1997, 2002; Salganik & Heckathorn, 2004). Because potential participants were solicited at Internet websites, a broad geographical range of participants within the United States was possible. The invitation to participate invited the referrals of other potential participants.

Internet studies may evidence methodological problems such as an increased drop-out rates and repeated participation; however, thorough analysis and testing before launching on-line may minimize these problems, and there are specific methods available

to detect and avoid these methodological problems (Farrell & Peterson, 2010; Skitka & Sargis, 2006). For example, the problem of multiple submissions can be addressed by numerous methods: By instructing participants to participate only once, by utilizing a site access gateway that does not allow more than one submission, by password participation only, by checking "*cookies*" for previous participation, by the analysis of the log file to discover request patterns, and by filtering identical or nearly identical records (Farrell & Peterson, 2010).

Cook and Campbell's (1979) proximal similarity model provides the sampling frame for the study. Under this model, the generalizability of the study, or external validity, can be established through determining the similarity of individuals recruited in different contexts. Specifically, participants were transgender individuals obtained as volunteers from Internet websites, including LGBT professional and community organizations, and through "snowball" referrals. Participants were expected to be similar for the purpose of the study. According to Shadish (2002), post-1980 progress in non-randomized field study methodology and analysis has been rapid and wide ranging. There is a large and multidisciplinary resource of literature in support of the sampling framework of this study.

Sample Size, Power, and Significance

According to Cohen (1988, 1992) for any statistical model, the relationships between "power, significance criterion (α), sample size (n), and effect size (ES)" (Cohen, 1988, p. 14) are such that each is a function of the other three. To determine the study's sample size N, the standard significance level of $\alpha = .05$ was chosen. As Lipsey and Hurley (2009) explain, "An alpha of .05 corresponds to a .95 probability of a correct

statistical conclusion only when the null hypothesis is true" (p. 50). An adequate level of power of .80 was selected for the study, making the Type II error (the probability of rejecting the alternative hypothesis when it is true) four times as likely as the Type I error, defined by Onwuegbuzie and Leech (2004) as "the probability of rejecting the null hypothesis when it is true" (p. 205). According to Cohen's (1992) convention for ES values, effect sizes for regression are .02 (small), .15 (medium), and .35 (large). For the study, a .15 medium effect size was determined to be appropriate. To determine the sample size for the study G*Power 3 was utilized. With a .15 medium effect size, .80 level of power, and a .05 significance level, a minimum of 92 participants were needed to achieve empirical validity.

Instrumentation and Materials

See the appendices for the complete tests, their modified versions, and permissions to use and modify. None of the utilized measures, described below, have been validated specifically for use with the transgender population. However, the unaltered measures have been validated and are utilized in the research and screening for depression, suicide, anxiety, and substance abuse in other populations.

Invitation to Participate

The Invitation to Participate (Appendix A) contained information about the researcher, the study, the committee members, and contact information for Walden University's Institutional Review Board for verification of their approval for the researcher to conduct the study. The Invitation to Participate was sent to the following institutions, asking them to forward the Invitation to Participate to those who may be interested in participating in the study: The APA, Division 44, The APA, Division 17,

The APA Division of Graduate Students, The Association of Women in Psychology in collaboration with Division 35 of the APA at POWR-L listserv website, WPATH, and Psychological Research on the Net (sponsored by Hanover College Psychology Department).

The Consent Form

The Consent Form (Appendix B) provided general information about the study. The Consent Form included my identity and affiliation, the purpose of the study, procedures, the risks and benefits of participation, privacy of information collected, and contact and resource information for participants. A statement of consent linked those who agreed to participate to the survey website.

Demographic Questionnaire

A demographic questionnaire (Appendix C) assessed participant geographic and personal data. Country, state, residential area (urban, suburban, or rural) were assessed. Personal data on age, gender identity, length of time living as a transgender person, gender assigned at birth, sexual orientation, and race/ethnicity were assessed. Other demographic data were assessed, including education, employment status, income level, and religious/spiritual preference.

The Transgender Internalized Transphobia Scale

The LIHS (Appendix D) was developed by Szymanski and Chung (2001a). For this study, internalized transphobia was assessed with a modified version of the LIHS, the TGITS (Appendix G). Syzmanski, Kashubeck-West, and Meyer (2008a) describe the LIHS as a self-report measure consisting of:

> 52 items derived from the clinical and theoretical literature on lesbian IH and it has five subscales: Connection with the Lesbian Community, Public Identification as a Lesbian, Personal Feelings about Being a Lesbian, Moral and Religious Attitudes toward Lesbianism, and Attitudes toward Other Lesbians. (p. 530)

The LIHS has been validated by Szymanski and Chung (2001a) and used in research with lesbians and bisexual women. The instrument has been modified, with permission, for use with this study's transgender participants. As Syzmanski et al. (2008a) describe, the items are statements "rated on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The LIHS includes reverse-scored items to reduce response sets. Average total and subscale score averages are used; higher scores indicating more internalized homophobia (Syzmanski et al., 2008a, p. 530). Syzmanski et al. (2001) report their validation data:

> The scores on the five subscales for their sample had internal reliabilities (coefficient αs) of .87 (CLC), .92 (PIL), .79 (PFL), .74 (MRATL), and .77 (ATOL), and contained 13 (CLC), 16 (PIL), 8 (PFL), 7 (MRATL), and 8 (ATOL) items. The intersubscale correlations ranged from .37 to .57. The subscales were internally consistent but correlated only moderately with each other, supporting the five subscales as distinct but correlated dimensions. The alpha for the scores on the LIHS total scale for their sample was .94. Correlations between the total and subscale scores ranged from .60 to .87. (pp. 28-29)

According to Szymanski et al. (2001), "Construct validity of the scores was supported by significant correlations between the LIHS subscales and Rosenberg's (1965) Self-Esteem

Scale, and the Revised UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980)" (Szymanski et al., 2001, p. 29).

In their study on internalized heterosexism, Syzmanski et al. (2008b) report on the psychometric properties of the LIHS:

> Test-re-test correlations across a 2-week period for scores on the LIHS total scale and subscales were .93, .91, .93, .88, .75 and .87, respectively (Szymanski & Chung, 2001a). Content validity of the measure was supported by an extensive review of the literature and by five expert raters (Szymanski & Chung, 2001b). (p. 530)

Internalized transphobia was assessed with a modified version of the LIHS, the TGITS. The TGITS is a self-report measure consisting of 52 items scored on a 7-point Likers scale ranging from 1 (strongly disagree) to 7 (strongly agree). The TGITS includes reverse-scored items to reduce response sets. Higher scores on the scale indicate more internalized transphobia. For this study, the mean was 2.74 and the standard deviation .99

The Stigmatization Scale

The SS (Harvey, 2001) (Appendix H) was validated with European Americans, African Americans, and Native American university students, and has been modified and used with other ethnic and racial minorities, lesbians and gay men, people with AIDS, women, people with physical disabilities, psychiatric patients, and people with mental disabilities. Harvey (2001) defines perceived stigmatization without the assumption that minorities necessarily feel stigmatized. He states "Stigmatized group members who have been fortunate enough to move across subordinate group dominant group boundaries and

to enjoy the resulting benefits may feel significantly less stigmatized, or not stigmatized at all relative to other stigmatized group members" (Harvey, 2001, p. 175).

The SS was developed and validated as a measure of sense of social stigmatization in order to more accurately assess an individual's sense of being stigmatized beyond their group membership. Although the scale was developed with racial minority participants, this measure is a particularly good fit for the purpose of this study, as I sought to encompass those transgender individuals who may have little contact with the LGBT community and who may have succeeded in their desire to "pass" to dominant group status.

The SS is a 21-item scale (18 scale items and three filler items) where participants respond on a 5-point "Likert-type scale (1 = strongly disagree, 5 = strongly agree)" (Harvey, 2001, p. 180). Harvey selected items for the development of the scale from items he developed for the scale, and from items from scales developed by other researchers. For example, Harvey's *powerlessness* factor was derived from items on the *Powerless Scale*, developed by Neal and Goat (1974); Harvey's *personal self-esteem* factor was derived from "Rosenberg's (1965) Self-Esteem Scale" (Harvey, 2001, p. 180). Harvey reports the statistical analyses for the scale:

> The alphas for the scale constructs are: Goal disruption ($\alpha = .85$), Powerlessness ($\alpha = .88$), Mastery ($\alpha = .83$), Interaction anxiousness ($\alpha = .87$), Personal self-esteem ($\alpha = .83$), Collective self-esteem ($\alpha = .78$). A factor analysis on the 18 items created a scale with $\alpha = .94$. A multiple regression procedure demonstrates these items accurately account for the variance, $R = .99$, $R^2 = .98$. (pp. 180-181)

Content validity was established by the use of knowledge experts for the development and demonstration of convergence and divergence from other similar measures. According to the author, the scale demonstrated excellent discrimination from scales that tap an individual's self- and in-group evaluation. The scale demonstrated the ability to distinguish stigmatized groups from relatively nonstigmatized groups.

Prejudice Events Questionnaire (Discrimination/Violence/Verbal Abuse)

The Prejudice Events Questionnaire (Appendix J) includes an assessment of discrimination, violence and verbal abuse. Three single item yes/no questions will be asked:

1. "In the past year, have you been discriminated against in any way because of your gender identity?"
2. "In the past year, have you been physically attacked because of your gender identity?" and
3. "In the past year, have you been verbally abused because of your gender identity?"

The response option for each question is "*yes*" or "*no*," creating a dichotomous variable for each of the three aspects of prejudice events. Responses will be coded either "1" for "*yes*" or "0" for "*no*". The three yes/no questions will be summed to create a subscale ranging from 0 to 3. Each unit increase of prejudice would mean the participant experienced one or more aspects of prejudice. The knowledge of what 1 unit of "prejudice events" represents provided the basis for the interpretation of the regression and the conclusions and results that were significant.

Treatment of the Prejudice Events Variable

The prejudice events variable includes an assessment of discrimination, violence and verbal abuse. Question 1 (discrimination) asks "In the past year, have you been discriminated against in any way because of your gender orientation?" Question 2 (violence) asks "In the past year, have you been physically attacked because of your gender orientation?" Question 3 (verbal abuse) asks "In the past year, have you been verbally abused because of your gender orientation?" The response option for each question is "*yes*" or "*no*," creating a dichotomous variable for each of the three aspects of prejudice events. Responses were coded either "1" for "*yes*" or "0" for "*no*". The mean of the three scores was calculated; the mean score represented the quantity of "prejudice events" experienced by the individual. For the regression analysis, discrimination, violence and verbal abuse were considered three separate predictor variables.

Yes/no questions are frequently utilized to assess exposure to major forms of discrimination and violence. Kimmel and Mahalik (2005) ask a single-item question to assess whether participants had been physically attacked because of their perceived sexual orientation. Meyer (1995) utilized single item questions (scored 1 or 0) to assess experience of antigay violence and/or discrimination.

There is an association between gay visibility and prejudice events. Meyer (1995, p. 41) states: "As gay men and lesbians become more visible, they increasingly become targets of antigay violence, prejudice, and discrimination". This is corroborated by the APA, 1986; Dean, Wu, and Martin, 1992; Herek and Berrill, 1992; Herek and Glunt, 1988; The National Gay and Lesbian Task Force, 1991; and Wilson, 1992.

The Goldberg Depression Scale

According to Holm, Holm and Bech (2001), the GDS (Goldberg, 1993) (Appendix K) is an "18-item self-rating scale; each item is rated on a 0-5 point Likert scale. The total score can range from 0 (total absence of symptoms of depression) to 90 (the most severe depression)" (Holm et al., 2001, p. 263). The time-frame for the GDS ratings is "over the past week" (p. 263). The GDS was developed in the 1990s with its content validity related to the *DSM-IV* criteria for major depression, and with the aim of developing an instrument easy to administer to patients in a general psychiatric setting. The validation study (Holm, et al., 2001) was conducted with a sample of 21 patients who met the criteria for moderate depressive episode; their scores on the GDS were compared to the Hamilton Depression Scale (Hamilton, 1967; "HAM-D") demonstrating adequate internal and external validity of the GDS. The HAM-D is one of the best known depression scales and is considered the gold standard in research studies.

The validation study took place in Denmark with depressed patients who completed a baseline assessment at the initial visit with the GDS and the HAM-D and at three subsequent visits. The study was designed to measure clinical improvement in patients who were treated with anti-depressants during their course of therapy. Holm et al. (2001) report the Loevinger co-efficient of homogeneity "varied from 0.25 at the time of diagnosis to 0.57, 0.65 and 0.69 by the second, third, and fourth visit. Factor analysis identified only one general factor explaining .50 or more of the variance, except at the baseline visit" (Holm et al., 2001, p. 265), where patients expressed similar levels of depression. The GDS correlation to the HAM-D had "a coefficient of 0.74 ($p<0.001$)" (Holm et al., 2001, p. 265). Interrater reliability using the HAM-D was adequate.

According to the authors and Bech (1993) there is an acceptable level of similarity between HAM-D statistical values for internal and external validity, and those demonstrated in other validation studies of self-report measures.

The Suicide Behaviors Questionnaire-Revised

Linehan and Addis (1981) developed and Linehan and Nielsen, (1983) validated the 34-item SBQ-R (Appendix M) to assess the frequency, past history, and severity of suicide attempts. Linehan and Nielsen (1981) developed a 4-item version, which will be used in this study, and Linehan, Goodstein, Nielsen, and Chiles (1983) developed a 14-item version of the instrument. The instrument has been used with adults in various settings (clinical and nonclinical), college undergraduates, and has been modified for use within correctional institutions with delinquent youth. Cole (1989) and Cotton, Peters, and Range (1995) reviewed the SBQ-R 4-item short form which is in wide use in research and for clinical purposes.

Osman, Bagge, Gutierrez, Konick, Kopper, and Barrios (2001) describe the constructs of the 4-item SBQR:

> Each tapping a different dimension of suicidality. SBQ-R Item 1 taps into lifetime suicide ideation and suicide attempt; Item 2 assesses frequency of suicidal ideation over the past twelve months; Item 3 taps into the threat of suicidal behavior; and Item 4 evaluates self-reported likelihood suicidal behavior. (p. 446)

The SBQ-R was validated with a sample of 513 participants comprised of psychiatric adolescent and adult inpatients, high school students, and college undergraduates from a wide range of cultural and ethnic groups.

Internal consistency reliability estimates, discriminant, convergent, and criterion-related validity were demonstrated to range from moderate to moderately high. Osman, et al. (2001) report their analysis to determine cut-scores:

> Receiver operating characteristic (ROC) analysis was used to determine cutoff scores for the SBQ-R Item 1 and SBQ-R total scores that might be useful in differentiating between individuals with suicide-risk status (suicidal) from nonsuicidal groups (criterion-related validity). (p. 450)

A cut-off score of 2 on Item 1 and a score of 8 for psychiatric samples and 7 for nonclinical samples on the total score correctly identified individuals as at-risk for suicidal ideation or attempts (sensitivity) or for not being at-risk as suicidal ideators or for attempts (specificity).

The Zung Self-Rating Anxiety Scale

The SAS (Zung, 1971) (Appendix O) was constructed using the descriptive approach, following psychiatric nosology which is based upon presenting symptomatology described in the *DSM*. The SAS is a two-part instrument. It can be used as an interviewer-rated inventory (Anxiety Status Inventory, ASI), or as a self-rated scale (Self-Rating Anxiety Scale, SAS).

The SAS is a 20-item self-report scale scored following 4 quantitative terms on a Likert-type scale that indicates frequency of occurrence. Zung's (1971) four scale terms are "none OR a little of the time, some of the time, good part of the time, most OR all of the time" (Zung, 1971, p. 374). The participant rates each of the items as it applies to them within the past week. The less anxious person will score lower on the scale, and the more anxious person will score higher. For scoring, Zung states "a value of 1, 2, 3 and 4

is assigned to a response depending upon whether the item was worded positively or negatively" (Zung, 1971, p. 376). A key exists for scoring this scale. An index is calculated by dividing the sum of the values (raw scores) for the 20 items by the maximum possible score of 80, converted to a decimal and multiplied by 100.

The SAS was validated using 225 male and female patients and outpatients, validating the measure against the Taylor Manifest Anxiety Scale (TMAS) and the Anxiety Status Inventory (ASI). Zung, (1971) reports on the statistical analysis for the validation of the instrument:

> Analysis of variance indicated that the mean SAS index obtained by patients with diagnosis of anxiety disorders was significantly higher than those of the other four diagnostic groups (P = <.05). In addition, the mean SAS index obtained from normal control subjects was significantly lower than all five of the patient diagnostic groups (P = <.01). (p. 377)

Zung performed Pearson product-moment correlations for the data on all patients was and found "all of the coefficients r calculated were statistically significant ($P = < 0.01$) in all instances" (p. 378). Zung reports on the correlation coefficients for the instrument variables:

> Correlation between the ASI and SAS was 0.66. Correlation between the ASI and TMAS, and SAS and TMAS were 0.33 and 0.30, respectively. Correlation between the ASI and SAS scores for patients with a diagnosis of anxiety disorder was 0.74. (p. 378)

Zung also reports, split half correlations for the ASI items and SAS items "were 0.83 and 0.71 respectively" (p. 378).

The SAS has been administered to patients globally (Chapman, Williams, Mast, & Woodruff-Borden, 2009), within a wide variety of ethnicities and cultures to test the instrument, as well as to assess anxiety. The SAS is found in the literature to be used in a wide range of research studies on such topics as panic disorder, anxiety in men with prostate cancer, insomnia, post-hysterectomy women, adults with intellectual disabilities, and college students. Statistical analyses of the results demonstrated the new instrument was able to differentiate significantly between anxiety patients from patients with other diagnosis, whereas the TMAS did not. Correlations between the ASI and the SAS and between the individual items of the two-part instrument with their respective total scores were all significant.

The Drug Abuse Screening Test

The original DAST (Skinner, 1982) was validated at the Addiction Research Foundation in Toronto, Canada with individuals who presented with psychoactive drug abuse. The DAST has been widely used as a screening instrument in diverse settings with diverse ethnic, cultural and multicultural populations. The DAST is a simple, practical yet valid method for identifying individuals who are abusing psychoactive drugs. The instrument "was developed to provide a brief instrument for clinical screening and treatment evaluation research" (Gavin, Ross & Skinner, 1989, p. 301). The original 28-item DAST is a quantitative measure of the severity "of problems related to psychoactive drug use" (Gavin et al., 1989, p. 301).

Three versions of the DAST (copyrighted by Dr. Harvey A. Skinner) have been developed and validated. These include the DAST -20 (Skinner & Goldberg, 1986), the DAST-10 (Bohn, Babor & Kranzler, 1991) (Appendix Q), and the DAST-A (Martino,

Grilo, & Fehon, 2000), which is written for adolescents. The DAST-10 will be used in this study. Yudko, Lozhkina and Fouts (2007) describe the composition of the measure:

> The DAST-10 contains 10 items from the original DAST. These are Items (1, 3, 5, 8, 9, 10, 15, 21, 23, and 24. Seven of the questions of DAST-10 are written identically to those in the original DAST, and three have been rewritten with minor modifications. (p. 190)

Grekin et al. (2010) state: "All items of the DAST-10 assess drug use in general, without referring to specific types of drugs" (p. 720). The DAST-10 is a brief self-report measure, which takes less than 5 minutes to administer.

Skinner (1982) reports the internal consistency reliability of the original measure is a substantial .92, and an extraordinary .95 for the 20-item DAST. Gavin, Ross and Skinner (1989) report "a factor analysis of item intercorrelations suggested a largely unidimensional scale, which supports interpreting the DAST as a general index of problems related to psychoactive drug use" (Gavin et al., 1989,p. 301). Skinner (1982) also reports "the 20-item DAST correlated almost perfectly (r = .99) with the original 28-item DAST" (Skinner, 1982, p. 370). Cocco and Carey (1998) report the DAST-20 and the DAST-10 are "highly correlated (r = .97) with each other" (Yukdo, et al., 2007, p. 191) as well as with other substance abuse and psychiatric scales. In a study with 618 consecutive psychiatric inpatient new admissions, Carey, Carey, and Chandra (2003) report "The DAST-10 is internally consistent (alpha = .86), temporally stable (ICC = .71), and able to discriminate between psychiatric outpatients with and without current drug abuse/dependence diagnoses" (Carey, et al., 2003, p. 770). Cocco and Carey (1998) reported similar estimates for psychiatric outpatients with Axis I disorders (non-substance

related); test-retest reliability was adequate at .78. Maisto, Carey, Carey, Gordon, and Gleason (2000) found in their symptoms data "a sensitivity range of .71 (cutpoint of 3) to .83 (cutpoint of 0). Specificity ranged from .74 (cutpoint of 0) to .90 (cutpoint of 3)" (p. 189). The DAST-10 has been used as a criterion measure in a study by French, Roebuck, McGeary, Chitwood and McCoy (2001) which evaluated a health services model for problematic drug use.

Cocco and Carey (1998) report the results of their factor analysis of the DAST-10 suggest the factor structure of the DAST is unidimensional (eigenvalue of 6, all others were below 1). Cocco and Carey determined an optimum cut-off score on the DAST-10 greater than 1 or 2 for a diagnosis of substance abuse or dependence; Maisto et al. (2000) concur. An optimal cut-off score of 2 was used in this study.

The Alcohol Use Disorders Identification Test

The AUDIT (Appendix S) was validated by an international group of investigators of the World Health Organization across gender, age, and culture (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). The instrument has been translated and used worldwide in research and as a screening instrument with general populations, clinical and non-clinical groups, veterans, the incarcerated, and college students.

The AUDIT was developed at the World Health Organization over a period of two decades as a simple method to identify individuals "whose use of alcohol places them at risk for alcohol problems or who are experiencing such problems" (Cassidy, Schmitz, & Malla, 2008, p. 28) because of their alcohol use. The AUDIT is used as a screening instrument for excess drinking, alcohol dependence, and as a brief assessment

of specific consequences of harmful drinking. The AUDIT can be self-administered or administered by professionals in non-health fields.

The AUDIT consists of 10 items related to recent use of alcohol, symptoms of alcohol dependence and problems due to excess drinking. Cassidy et al. (2008) state that "AUDIT scores are calculated by summing responses to all questions, each question is assigned a value of 0 to 4. AUDIT total scores can range from 0 to 40" (Cassidy et al., p. 28). The cut-off value of 8 points yielded a balance between sensitivity and specificity with indices of sensitivity to problematic drinking in the mid .90's, and specificities averaging in the .80's.

The AUDIT is unique compared to other self-report screening tests, as the scale was developed from data gathered from a large multinational sample and places emphasis on identifying problem (hazardous) drinking rather than long-term alcohol dependence and focuses primarily on recent symptoms rather than past symptoms of "ever". The AUDIT has been found to have a strong correlation with other measures of alcohol abuse and dependence. Bohn, Babor, and Kranzler (1995) and Hays, Merz, and Nicholas (1995) reported high internal consistency and high reliability.

Ivis, Adlaf, and Rehm (2000) conducted a study investigating the effect of wording changes and question ordering on internal consistency reliability and prevalence estimates. They found changes in the wording and ordering of questions had no effect upon the AUDIT scores. This suggests that researchers can be flexible to a degree in modifying the order and wording of the AUDIT items, without compromising internal validity and reliability.

Data Collection and Analysis

The raw data were imported from the internet into the Statistical Package for Social Sciences software version 22.0 for Windows for analysis. Descriptive statistics (mean, frequencies, standard deviation, and range) was used to describe the study's participants. Participant responses which were operationalized using nominal or categorical data were presented as frequencies and percents to describe the number of participants that fit into a certain category and the percent of the sample that coincides with that category. Responses which were operationalized as interval data were presented using means and standard deviations.

Because of the risk of Type I error when conducting numerous bivariate observations, multiple regression/multivariate analyses were conducted to assess which, if any, of the three minority stress variables (internalized homophobia, perceived stigma, and prejudice events) predict which, if any, of the four mental health variables (depression, suicidal ideation, anxiety, and substance abuse). Standard multiple regression was utilized with independent variables (predictors) entered simultaneously into the model. Variables were evaluated by their added value to the prediction of the dependent variable (criterion). An ANOVA *F* test was utilized to determine whether the independent variables collectively predict the dependent variable. The multiple correlation coefficient R-squared, was reported and utilized to calculate the proportion of variance in the dependent variable accounted for by the independent variables. A *t* test was utilized to estimate the significance for each predictor. Beta coefficients (partial regression coefficients) were utilized to assess the degree of prediction for each of the independent variables. According to Tabachnick and Fidell (2001), for significant

predictors, every one unit increase in the predictor, the dependent variable will increase or decrease by the number of unstandardized beta coefficients.

The assumptions of multiple regression – linearity, homoscedasticity and absence of multicollinearity – were assessed. Linearity and homoscedasticity were assessed by examination of scatter plots. Multicollinearity will be assessed utilizing VIF. According to Stevens (2002) VIF values over 10 suggest the presence of multicollinearity.

Reliability

Given that The TGITS is a revision of the LIHS, Cronbach's coefficient alpha reliability and internal consistency was conducted on the measure. According to Brace, Kemp, and Snelgar (2006) "Cronbach's alpha provides the mean correlation between each pair of items and the number of items in a scale" (p. 331). The following rules, suggested by George and Mallery (2003), were used to evaluate alpha coefficients on a scale of: Excellent, >.9, Good, >.8, Acceptable, >.7, Questionable, >.6, Poor, >.5, and Unacceptable, <.5.

Research Question 1

RQ1: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and depression?

H_o #1a: Internalized transphobia as measured by The Transgender Internalized Transphobia Scale does not predict depression as measured by The Goldberg Depression Scale.

H_a #1a: Internalized transphobia as measured by The Transgender Internalized Transphobia Scale, predicts depression as measured by The Goldberg Depression Scale.

H_o *#1b*: Perceived stigma as measured by The Stigmatization Scale does not predict depression as measured by The Goldberg Depression Scale.

H_a *#1b:* Perceived stigma as measured by The Stigmatization Scale predicts depression as measured by The Goldberg Depression Scale.

H_o *#1c:* Prejudice events as measured by three single item yes/no questions does not predict depression as measured by The Goldberg Depression Scale.

H_a *#1c:* Prejudice events as measured by three single item yes/no questions predicts depression as measured by The Goldberg Depression Scale.

To investigate Research Question 1, a multiple regression will be conducted to assess which, if any, of the minority stress variables predict depression. There are five independent, or predictor, variables for minority stress (internalized transphobia, perceived stigma, and prejudice events) measured by the TGITS, The SS, and three separate questions pertaining to experiences of prejudice events (discrimination, violence, and verbal abuse) over the past year. The dependent or outcome variable is depression, measured by The GDS.

Research Question 2

RQ2: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and suicidal ideation?

H_o *#2a:* Internalized transphobia as measured by The Transgender Internalized Transphobia Scale does not predict suicidal ideation as measured by The Suicide Behaviors Questionnaire - Revised.

H_a *#2a:* Internalized transphobia as measured by The Transgender Internalized Transphobia Scale predicts suicidal ideation as measured by The Suicide Behaviors Questionnaire - Revised.

H_o *#2b:* Perceived stigma as measured by The Stigmatization Scale does not predict suicidal ideation as measured by The Suicide Behaviors Questionnaire - Revised.

H_a *#2b:* Perceived stigma as measured by The Stigmatization Scale predicts suicidal ideation as measured by The Suicide Behaviors Questionnaire - Revised.

H_o *#2c:* Prejudice events as measured by three single item yes/no questions does not predict suicidal ideation as measured by The Suicide Behaviors Questionnaire - Revised.

H_a *#2c:* Prejudice events as measured by three single item yes/no questions predicts suicidal ideation as measured by The Suicide Behaviors Questionnaire - Revised.

To investigate Research Question 2, a multiple regression will be conducted to assess which, if any, of the minority stress variables predict suicidal ideation. There are five independent or predictor variables for minority stress (internalized transphobia, perceived stigma, and prejudice events), measured by the TGITS, The SS, and three specific questions pertaining to experience of prejudice events in the past year. The dependent or outcome variable is suicidal ideation, measured by the SBQ-R.

Research Question 3

RQ3: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and anxiety?

H_o *#3a:* Internalized transphobia as measured by The Transgender Internalized Transphobia Scale does not predict anxiety as measured by The Zung Self-Rating Anxiety Scale.

H_a *#3a:* Internalized transphobia as measured by The Transgender Internalized Transphobia Scale predicts anxiety as measured by The Zung Self-Rating Anxiety Scale.

H_o *#3b:* Perceived stigma as measured by The Stigmatization Scale does not predict anxiety as measured by The Zung Self-Rating Anxiety Scale.

H_a *#3b:* Perceived stigma as measured by The Stigmatization Scale predicts substance abuse as measured by The Drug Abuse Screening Test and the Alcohol Use Disordered Identification Test.

H_o *#3c:* Prejudice events as measured by three single item yes/no questions does not predict anxiety as measured by The Zung Self-Rating Anxiety Scale.

H_a *#3c:* Prejudice events as measured by three single item yes/no questions predicts anxiety as measured by The Zung Self-Rating Anxiety Scale.

To investigate Research Question 3, a multiple regression will be conducted to assess which, if any, of the minority stress variables predict anxiety. There are five independent or predictor variables for minority stress (internalized transphobia, perceived stigma, and prejudice events), measured by the TGITS, The SS, and three specific questions pertaining to experience of prejudice events in the past year. The dependent or outcome variable is anxiety, measured by The Zung SAS.

Research Question 4

RQ4: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and substance abuse?

H_o #4a: Internalized transphobia as measured by The Transgender Internalized Transphobia Scale does not predict substance abuse as measured by The Drug Abuse Screening Test and the Alcohol Use Disordered Identification Test.

H_a #4a: Internalized transphobia as measured by The Transgender Internalized Transphobia Scale does not predict substance abuse as measured by The Drug Abuse Screening Test and the Alcohol Use Disordered Identification Test.

H_o #4b: Perceived stigma as measured by The Stigmatization Scale does not predict substance abuse as measured by The Drug Abuse Screening Test and the Alcohol Use Disordered Identification Test.

H_a #4b: Perceived stigma as measured by The Stigmatization Scale predicts substance abuse as measured by The Drug Abuse Screening Test and the Alcohol Use Disordered Identification Test.

H_o #4c: Prejudice events as measured by three single-item yes/no questions does not predict substance abuse as measured by The Drug Abuse Screening Test and the Alcohol Use Disordered Identification Test.

H_a #4c: Prejudice events as measured by three single item yes/no questions predicts substance abuse as measured by The Drug Abuse Screening Test and the Alcohol Use Disordered Identification Test.

To investigate Research Question 4, two multiple regressions will be conducted to assess which, if any, of the minority stress variables predict substance abuse. There are

five independent or predictor variables for minority stress (internalized transphobia, perceived stigma, and prejudice events), measured by the TGITS, The SS, and three specific questions pertaining to experience of prejudice events in the past year. The dependent or outcome variable is substance abuse, measured by two instruments, including the DAST-10 (drug abuse) and the AUDIT (alcohol abuse). One regression will be conducted for each dependent variable (test measure).

Measures for the Protection of Participants' Rights

Ethical Guidelines for Data Collection and Reporting

Participants' rights and potential negative effects upon participants were addressed in the study by the researcher and by Walden IRB compliance number 08-08-13-00127421. An informed consent describing the nature of the study, participation procedures, a statement that participants were free to withdraw from the study at any time during the process actions taken to ensure anonymity and confidentiality of participant identity and data, risks and benefits, information on how to request a summary of the research results, a reminder that the study was completely voluntary and that information will be collected anonymously, and a statement that there was no compensation for participation. Information regarding the risks and benefits associated with participation in the study was included in the informed consent. To further protect the anonymity of participants, I selected the option of the data collection site, Survey Monkey, to collect anonymous data by not storing Internet protocol addresses or e-mail addresses in the survey results. In the informed consent, potential participants were given my contact information as well as contact information for Dr. Leilani Endicott, Chair of Walden University's IRB Board, if participants had questions with regard to participation.

Referrals to the Trevor Lifeline, the GLBT National Hotline, and the National Suicide Prevention Lifeline were available in the event that a participant experienced a negative reaction to the survey. Participants were informed their responses would remain confidential, accessed solely by me, and stored in my password secured computer for a period of 5 years, after which the data will be destroyed according to the APA (2002) requirements. Participants gave informed consent at the website by clicking on "Yes" indicating they understood and agreed to the conditions of the study.

Summary and Transition Statement

This chapter presented the research methodology for the study, the logistics and justification for the research design, and the approach to the study. I presented a detailed description of the setting, the selection criteria for the participants, and characteristics of the sample and population from which the sample was drawn. I provided a detailed description and critique of the sampling model and sampling methods. I explained the calculation of the sample size, power, and effect size for the study. I presented the rationale for instrument selection and described the instruments and their psychometric properties. I defined the nature of the scales for each variable. I presented statements of hypotheses related to each research question. I described the materials and tools for data collection and the data collection and scoring procedures. I discussed the data analyses, including description of data that comprise each variable, and the location of tables of raw data. I presented a description of the statistical methods and software programs used to perform the data analysis. I demonstrated adherence to APA ethical guidelines for collection of data, retention and reporting of data, and the ethical protection of participants.

In Chapter 4, I will address the research questions and hypotheses, and report the related findings utilizing tables and figures. In the data analysis, I will present a commentary on the observed results and provide interpretations and possible alternative interpretations. A summary will follow, including an interpretation related to the importance of the findings with regard to the research questions.

Chapter 4: Results

Introduction

The purpose of study was to investigate the relationship between minority stress and mental health with a sample of the transgender population. I operationalized minority stress in this study utilizing instruments to measure internalized transphobia, perceived stigma, and prejudice events. Mental health was operationalized utilizing instruments to measure depression, suicidal ideation, anxiety, and substance abuse (both alcohol and drug use). I will describe the research questions and hypotheses in the following section.

Research Questions

RQ1: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and depression?

H_o *#1a:* Internalized transphobia as measured by the TGITS does not predict depression as measured by the GDS.

H_a *#1a:* Internalized transphobia as measured by the TGITS predicts depression as measured by the GDS.

H_o *#1b*: Perceived stigma as measured by The SS does not predict depression as measured by the GDS.

H_a *#1b:* Perceived stigma as measured by the SS predicts depression as measured by the GDS.

H_o *#1c:* Prejudice events as measured by three single item yes/no questions does not predict depression as measured by the GDS.

H_a #1c: Prejudice events as measured by three single item yes/no questions predicts depression as measured by the GDS.

To investigate Research Question 1, I conducted a multiple regression to assess which, if any, of the minority stress variables predicted depression. There were five independent, or predictor, variables for minority stress (internalized transphobia, perceived stigma, and prejudice events) measured by the TGITS, the SS, and three separate questions pertaining to experiences of prejudice events (discrimination, violence, and verbal abuse) over the past year. The dependent or outcome variable was depression, measured by the GDS.

RQ2: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and suicidal ideation?

H_o #2a: Internalized transphobia as measured by the TGITS does not predict suicidal ideation as measured by the SBQ-R.

H_a #2a: Internalized transphobia as measured by the TGITS predicts suicidal ideation as measured by SBQ-R.

H_o #2b: Perceived stigma as measured by the SS does not predict suicidal ideation as measured by SBQ-R.

H_a #2b: Perceived stigma as measured by SS predicts suicidal ideation as measured by SBQ-R.

H_o #2c: Prejudice events as measured by three single item yes/no questions does not predict suicidal ideation as measured by SBQ-R.

H_a #2c: Prejudice events as measured by three single item yes/no questions predicts suicidal ideation as measured by SBQ-R.

To investigate Research Question 2, I conducted a multiple regression to assess which, if any, of the minority stress variables predicted suicidal ideation. There were five independent or predictor variables for minority stress (internalized transphobia, perceived stigma, and prejudice events), measured by the TGITS, the SS, and three specific questions pertaining to experience of prejudice events in the past year. The dependent or outcome variable was suicidal ideation, measured by the SBQ-R.

RQ3: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and anxiety?

H_o #3a: Internalized transphobia as measured by the TGITS does not predict anxiety as measured by the Zung SAS.

H_a #3a: Internalized transphobia as measured by the TGITS predicts anxiety as measured by the Zung SAS.

H_o #3b: Perceived stigma as measured by the SS does not predict anxiety as measured by the Zung SAS.

H_a #3b: Perceived stigma as measured by the SS predicts substance abuse anxiety as measured by the Zung SAS.

H_o #3c: Prejudice events as measured by three single item yes/no questions does not predict anxiety as measured by the Zung SAS.

H_a #3c: Prejudice events as measured by three single item yes/no questions predicts anxiety as measured by the Zung SAS.

To investigate Research Question 3, I conducted a multiple regression to assess which, if any, of the minority stress variables predicted anxiety. There were five independent or predictor variables for minority stress (internalized transphobia, perceived

stigma, and prejudice events), measured by the TGITS, the SS, and three specific questions pertaining to experience of prejudice events in the past year. The dependent or outcome variable was anxiety, measured by the Zung SAS.

RQ4: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and substance abuse?

H_o #4a: Internalized transphobia as measured by the TGITS does not predict substance abuse as measured by the DAST-10 and the AUDIT.

H_a #4a: Internalized transphobia as measured by the TGITS predicts substance abuse as measured by the DAST-10 and the AUDIT.

H_o #4b: Perceived stigma as measured by The SS does not predict substance abuse as measured by the DAST-10 and the AUDIT.

H_a #4b: Perceived stigma as measured by the SS predicts substance abuse as measured by the DAST-10 and the AUDIT.

H_o #4c: Prejudice events as measured by three single-item yes/no questions does not predict substance abuse as measured by the DAST-10 and the AUDIT.

H_a #4c: Prejudice events as measured by three single item yes/no questions predicts substance abuse as measured by the DAST-10 and the AUDIT.

To investigate Research Question 4, I conducted two multiple regressions to assess which, if any, of the minority stress variables predicted substance abuse. There were five independent or predictor variables for minority stress (internalized transphobia, perceived stigma, and prejudice events), measured by the TGITS, the SS, and three specific questions pertaining to experience of prejudice events in the past year. The dependent or outcome variable was substance abuse, measured by two instruments,

including the DAST-10 (drug abuse) and the AUDIT (alcohol abuse). I conducted one regression for each dependent variable (test measure).

Sample Demographic Characteristics

Invitation to Participate

The period of recruitment was August 7, 2014 through February 3, 2015. I recruited participants by distributing an Invitation to Participate. The Invitation to Participate was posted on the listservs of five professional organizations. The organizations included the APA, Division 44, the APA, Division 17, the APA of Graduate Students, the Association of Women in Psychology in collaboration with Division 35 of the American Psychological Association at POWR-L (an acronym for the listserv) website, WPATH, and Psychological Research on the Net (sponsored by Hanover College Psychology Department.

Selection of Participants

A total of 121 individuals accessed the survey during the recruitment period. Of these, a total of 83 individuals had to be excluded from participation in the study. Four did not provide consent to participate, six resided outside of North America; 49 had an unacceptable amount of missing data (more than 20%), 32 did not choose a transgender identity category, and one identified as intersex. I obtained a final $N = 29$ was obtained after the exclusion of those who did not meet criteria for participation.

Table 1 displays individuals who were excluded according to the exclusion criteria. Table 1 also displays those who were excluded for missing data at the cutoff point of 20% and the percentage of the total sample remaining after the exclusions. Although there is no universally agreed upon standard for a cutoff point, Peng, Harwell,

Liou, and Ehman (2006) and Schlomer, Bauman, and Card (2010) suggested 20% as a cutoff for defining a large amount of missing data, and as a cutoff for the amount of missing data likely to bias statistical test results.

Table 1

Exclusions From the Final Sample Size

Exclusion reason	Number excluded	Sample size after exclusion	Percentage of total sample still available after exclusion
Initial sample size	0	121	100.00
Did not consent to participate	4	117	96.69
Outside of North America	6	111	91.74
More than 20% missing data	49	62	51.24
Did not choose a transgender category	32	30	24.79
Indicated Intersex	1	29	23.97
Final sample size	0	29	23.97

Table 2 displays data on the scales for the 49 individuals who were excluded from the sample for missing data. On the Demographic Questionnaire, 39 (79.59%) completed the questionnaire. Four individuals (7.69%) completed the TGITS, SS, and Prejudice Events scales. Three individuals (6.12%) completed the GDS. Two individuals (4.08%) completed the SBQ-R Suicide Behaviors scale. One individual (2.04%) completed the Zung SAS. No one from the excluded group of individuals completed the DAST. One individual completed the AUDIT (2.04%). The missing data were categorized as non-

random, as there was an observed steep drop in responding after the Demographic Questionnaire, dropping from 39 on the Demographic Questionnaire to 4 on the next measure (the TGITS), then a gradual, consistent drop to 0 and 1 on the DAST and AUDIT, respectively.

Table 2

Summary of Scale Completion for Excluded Individuals (n = 49)

Scale	# Items	# Completion	%
Demographic Questionnaire	13	39/49	79.59
TGITS	52	4/49	8.16
Stigmatization Scale	21	4/49	8.16
Prejudice Events Questionnaire	3	4/49	8.16
Goldberg Depression Inventory	18	3/49	6.12
Suicide Behaviors Questionnaire	4	2/49	4.08
Zung Anxiety Scale	20	1/49	2.04
Drug Abuse Screening Test	20	0/49	0.00
Alcohol Use Disorder Test	10	1/49	2.04

Sample Characteristics

All participants in the sample were residents of either the United States or Canada ($N = 29$). Geographic location of respondents was varied with 14 residing in urban (large or medium size city) areas, 11 in suburban areas, and four in rural areas. Age observations ranged from 18 to 75, with an average observation of 40.21 and an *SD* of 15.64.

Table 3

Descriptive Statistics for Sample Characteristics – Country, Type of Geographic Location

Variable		*n*	*%*
Country			
	United States	28	96.55
	Canada	1	3.45
Type of Geographic Location			
	Rural (small town, farm, or in the country)	4	13.79
	Suburban (areas just outside a large or medium size city)	11	37.93
	Urban (large or medium size city)	14	48.28

Current gender identities were reported by participants as 10 male and 16 female. Gender assigned at birth was reported by participants as 12 male and 17 female. Because participants were allowed to choose more than one trans identity within the category of transgender identity, the category *n* sums and percentages are not meaningful, as they sum to more than 100%.

Table 4

Descriptive Statistics for Sample Characteristics – Gender Assigned at Birth, Gender Identity

Variable	*n*	*%*
Gender Assigned at Birth		
Male	12	41.38
Female	17	58.62
Gender Identity		
Male	10	34.48
Transgender (Female to Male)	16	55.17
Transsexual (Female to Male)	4	13.79
FtM	12	41.38
Transman	10	34.48
Female	3	10.34
Transgender (Male to Female)	7	24.14
Transsexual (Male to Female)	3	10.34
MtF	1	3.45
Transwoman	4	13.79
Other	7	24.14

Almost half of the participants ($N = 13$) reported living as transgender between 1-5 years, with the next highest category ($N = 9$) between 6-10 years. Three sexual orientation categories formed the majority of sexual orientation identities, with lesbian, gay or homosexual the largest ($N = 8$), bisexual ($N = 7$), and heterosexual ($N = 4$), and other ($N = 13$); again, participants were allowed to choose more than one sexual orientation identity.

Table 5

Descriptive Statistics for Sample Characteristics – Length Living as Transgender, Sexual Orientation

Variable		*n*	%
Length Living as Transgender			
	Less than 1 year	1	3.45
	1-5 years	13	44.83
	6-10 years	9	31.03
	11-15 years	3	10.34
	21-25 years	1	3.45
	Missing	2	6.90
Sexual Orientation			
	Bisexual	7	24.14
	Heterosexual	4	13.79
	Lesbian, gay, or homosexual	8	27.59
	Other	13	44.83

For Race/Ethnicity, most participants ($N = 26$) indicated White, Caucasian, or European American.

Table 6

Descriptive Statistics for Sample Characteristics – Racial/Ethnicity

Variable	*n*	%
Racial/Ethnicity		
Black, African, or African American	3	10.34
Latino/a or Hispanic	1	3.45
White, Caucasian, or European American	26	89.66

Responses for highest level of education indicated most participants held bachelor's and master's degrees ($N = 20$). Most participants reported either being employed full-time for wages ($N = 15$) or students ($N = 13$).

Table 7

Descriptive Statistics for Sample Characteristics – Highest Level of Formal Education

Variable	*n*	%
Highest Level of Formal Education		
Some High School	1	3.45
Some College, Technical School or Associate's Degree	4	13.79
College/University Degree or Some Graduate School	11	37.93
Master's Degree	9	31.03
Doctoral Degree or Professional Degree	1	3.45
Employment		
Employed full-time for wages	13	44.83
Employed part-time for wages	5	17.24
Self-employed (full-time)	2	6.90
Self-employed (part-time)	3	10.34
Student	17	58.62
Homemaker	1	3.45
Not employed	6	20.69
Retired	2	6.90

The median salary was about $25,000 per year.

Table 8

Descriptive Statistics for Sample Characteristics - Income

Variable	*n*	*%*
Income		
$0 - $20,000	13	44.83
$20,001 - $40,000	2	6.90
$40,001 - $60,000	2	6.90
$60,001 - $80,000	4	13.79
$80,001 - $100,000	2	6.90
$100,001+	6	20.69
Missing	1	3.45

Religious beliefs were varied in the sample. Many respondents indicated they held no religious preference ($N = 12$), or were atheist ($N = 7$). Because participants were able to select multiple response options for several demographic questions, many of the

demographic questions are reported with "100%" indicated for all response options within the question.

Table 9

Descriptive Statistics for Sample Characteristics - Religious/Spiritual Preference

Variable	*n*	*%*
Religious/Spiritual Preference		
Roman Catholic	2	6.90
Protestant Christian	2	6.90
Jewish	3	10.34
Hindu	1	3.45
Buddhist	2	6.90
None	12	41.38
Atheist	7	24.14
Other	3	10.34

Because participants were able to select multiple response options for several demographic questions, many of the demographic questions are reported with "100%" indicated for all response options within the question.

Additional Sample Characteristics

Two additional tables were created from the demographic data. Table 10 is a cross tabulation table. Table 10 was created in the interest of exploring the relationship between assigned gender at birth and current gender identity. Table 11 was created to explore the relationship between sexual orientation and gender identity, follows.

Table 10

Cross Tabulation Between Assigned Gender (at Birth) and Gender Identity

	Gender Assigned at Birth		
Gender Identity	Female	Male	*n*
Male	10	0	10
Transgender (Female	15	1	16
Transsexual (Female	4	0	4
FtM	12	0	12
Transman	10	0	10
Female	0	3	3
Transgender (Male to	0	7	7
Transsexual (Male to	0	3	3
MtF	0	1	1
Transwoman	0	4	4
Other	7	0	4

Table 11

Cross Tabulation Between Sexual Orientation and Gender Identity

Gender Identity	Bisexual	Heterosexual	Lesbian, Gay, or Homosexual	Other	*n*
Male	6	2	2	4	14
Transgender (Female to Male)	4	2	2	11	17
Transsexual (Female to Male)	2	0	0	2	4
FtM	4	2	0	6	12
Transman	3	1	1	6	11
Female	0	1	2	0	3
Transgender (Male to Female)	2	0	4	1	7
Transsexual (Male to Female)	0	1	2	0	3
MtF	0	0	1	0	1
Transwoman	0	0	3	1	4
Other	1	0	1	5	7

Instruments

See the appendices for the complete tests, their modified versions, and permissions to use and modify. None of the utilized measures, described below, have been validated specifically for use with the transgender population. However, the unaltered measures have been validated and are utilized in the research and screening for depression, suicide, anxiety, and substance abuse in other populations. Each of the 29 participants completed the demographic questionnaire and all eight scales of the study.

The Transgender Internalized Transphobia Scale

The LIHS (see Appendix D) was developed by Szymanski and Chung (2001a). For this study, internalized transphobia was assessed with a modified version of the LIHS, the TGITS, (see Appendix G). Syzmanski, et al. (2008a) describe the LIHS as a self-report measure consisting of:

> 52 items derived from the clinical and theoretical literature on lesbian IH and it has five subscales: Connection with the Lesbian Community, Public Identification as a Lesbian, Personal Feelings about Being a Lesbian, Moral and Religious Attitudes toward Lesbianism, and Attitudes toward Other Lesbians. (p. 530)

The LIHS has been validated by Szymanski and Chung (2001a) and used in research with lesbians and bisexual women. The instrument has been modified, with permission, for use with this study's transgender participants. As Syzmanski, et al. (2008a) describe, the items are statements "rated on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The LIHS includes reverse-scored items to reduce response sets. Average total and subscale score averages are used; higher scores indicating more IH" (Syzmanski et al. 2008a, p. 530).

Internalized transphobia was assessed with a modified version of LIHS (see Appendix D), the TGITS (See Appendix G). The TGITS is a self-report measure consisting of 52 items scored on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The TGITS includes reverse-scored items to reduce response sets. Higher scores on the scale indicate more internalized transphobia. For this study, the mean was 2.74 and the standard deviation .99.

The Stigmatization Scale

The SS (see Appendix H) was developed and validated by Harvey (2001) as a measure of sense of social stigmatization in order to more accurately assess an individual's sense of being stigmatized beyond their group membership. Although the scale was developed with racial minority participants, this measure is a particularly good fit for the purpose of this study, as I sought to encompass those transgender individuals who may have little contact with the LGBT community and who may have succeeded in their desire to "pass" to dominant group status.

Perceived stigma was assessed with the SS. The SS is a 21-item scale (18 scale items and 3 filler items) where participants respond on a 5-point "Likert-type scale (1 = strongly disagree, 5 = strongly agree)" (Harvey, 2001, p. 180). The score is calculated by summing all items in each subscale and dividing by the total number of items. Higher scores indicate higher level of feelings of stigmatization. For this study, the mean was 3.16 and the standard deviation .80.

Prejudice Events Questionnaire (Discrimination/Violence/Verbal Abuse)

The prejudice events variable was assessed with the Prejudice Events Questionnaire (see Appendix J). The instrument includes an assessment of discrimination, violence and verbal abuse. Three single item yes/no questions were asked: Question 1 (discrimination) asks "In the past year, have you been discriminated against in any way because of your gender orientation?" Question 2 (violence) asks "In the past year, have you been physically attacked because of your gender orientation?" Question 3 (verbal abuse) asks "In the past year, have you been verbally abused because of your gender orientation?" The response option for each question is "*yes*" or "*no*,"

creating a dichotomous variable for each of the three aspects of prejudice events. Responses were coded either "1" for "*yes*" or "0" for "*no*". The mean of the three scores represents the quantity of "prejudice events" experienced by the individual. For the regression analysis, discrimination, violence and verbal abuse were considered three separate predictor variables.

The three yes/no questions were summed to create a subscale ranging from 0 to 3. Each unit increase of prejudice means the participant experienced one or more aspects of prejudice. The knowledge of what 1 unit of "prejudice events" represents provides the basis for the interpretation of the regression and the conclusions (if the results are significant). The mean of the three scores was calculated; the mean score represents the quantity of "prejudice events" experienced by the individual. For this study, the mean was 1.24 and the standard deviation 1.02.

The Goldberg Depression Scale

According to Holm, Holm and Bech (2001), the GDS (Goldberg, 1993) (see Appendix K) is an "18-item self-rating scale; each item is rated on a 0-5 point Likert scale. The total score can range from 0 (total absence of symptoms of depression) to 90 (the most severe depression)" (Holm et al., 2001, p. 263). The time-frame for the GDS ratings is "over the past week" (p. 263). The GDS was developed in the 1990s with its content validity related to the *DSM-IV* criteria for major depression, and with the aim of developing an instrument easy to administer to patients in a general psychiatric setting.

Depression was measured by the GDS. The total score was created by summing all items in each subscale and dividing by the total number of items. For this study, the mean was 1.23 and the standard deviation 1.09.

The Suicide Behaviors Questionnaire-Revised

Linehan and Addis (1981) developed and Linehan and Nielsen, (1983) validated the 34-item SBQ-R (See Appendix M) to assess the frequency, past history, and severity of suicide attempts. Linehan and Nielsen (1981) developed a 4-item version, which was used in this study. The instrument has been used with adults in various settings (clinical and nonclinical), college undergraduates, and has been modified for use within correctional institutions with delinquent youth. Cole (1989) and Cotton, Peters, and Range (1995) reviewed the SBQ-R 4-item short form which is in wide use in research and for clinical purposes.

Osman, Bagge, Gutierrez, Konick, Kopper, and Barrios (2001) describe the constructs of the 4-item SBQR:

> Each tapping a different dimension of suicidality. SBQ-R Item 1 taps into lifetime suicide ideation and suicide attempt; Item 2 assesses frequency of suicidal ideation over the past twelve months; Item 3 taps into the threat of suicidal behavior; and Item 4 evaluates self-reported likelihood suicidal behavior. (p. 446)
>
> Osman et al. (2001) report their analysis to determine cut-scores:
>
> Receiver operating characteristic (ROC) analysis was used to determine cutoff scores for the SBQ-R Item 1 and SBQ-R total scores that might be useful in differentiating between individuals with suicide-risk status (suicidal) from nonsuicidal groups (criterion-related validity). (p. 450)

A cut-off score of 2 on Item 1 and a score of 8 for psychiatric samples and 7 for nonclinical samples on the total score correctly identified individuals as at-risk for suicidal ideation or attempts (sensitivity) or for not being at-risk as suicidal ideators or for

attempts (specificity). The Suicide Behaviors Questionnaire-Revised assessed the frequency, past history, and severity of suicide attempts. Scores were calculated by summing all scores indicated by the respondents. A key exists for scoring this scale. The total score ranges from 3-18. For this study, the mean was 8.41 and the standard deviation 3.45.

The Zung Self-Rating Anxiety Scale

The SAS (Zung, 1971) (see Appendix O) was constructed using the descriptive approach, following psychiatric nosology which is based upon presenting symptomatology described in the *DSM*. The SAS is a two-part instrument. It can be used as an interviewer-rated inventory (ASI), or as a self-rated scale (SAS). The SAS is a 20-item self-report scale scored following 4 quantitative terms on a Likert-type scale that indicates frequency of occurrence. Zung's (1971) four scale terms are "none OR a little of the time, some of the time, good part of the time, most OR all of the time" (Zung, 1971, p. 374). The participant rates each of the items as it applies to them within the past week. The less anxious person will score lower on the scale, and the more anxious person will score higher. For scoring, Zung states "a value of 1, 2, 3 and 4 is assigned to a response depending upon whether the item was worded positively or negatively" (Zung, 1971, p. 376). A key exists for scoring this scale. An index is calculated by dividing the sum of the values (raw scores) for the 20 items by the maximum possible score of 80, converted to a decimal and multiplied by 100.

The SAS has been administered to patients globally (Chapman, Williams, Mast, & Woodruff-Borden, 2009), within a wide variety of ethnicities and cultures to test the instrument, as well as to assess anxiety. The SAS is found in the literature to be used in a

wide range of research studies on such topics as panic disorder, anxiety in men with prostate cancer, insomnia, post-hysterectomy women, adults with intellectual disabilities, and college students. Anxiety was measured by the Zung Self-Rating Anxiety Scale. An index was calculated by dividing the sum of the values (raw scores) for the 20 items by the maximum possible score of 80, converted to a decimal and multiplied by 100. For this study, the mean was 46.81 and the standard deviation 12.05.

The Drug Abuse Screening Test

The original DAST (Skinner, 1982) was validated at the Addiction Research Foundation in Toronto, Canada with individuals who presented with psychoactive drug abuse. The DAST has been widely used as a screening instrument in diverse settings with diverse ethnic, cultural and multicultural populations. The DAST is a simple, practical yet valid method for identifying individuals who are abusing psychoactive drugs. The instrument "was developed to provide a brief instrument for clinical screening and treatment evaluation research" (Gavin, Ross & Skinner, 1989, p. 301). The original 28-item DAST is a quantitative measure of the severity "of problems related to psychoactive drug use" (Gavin et al., 1989, p. 301).

Three versions of the DAST (copyrighted by Dr. Harvey A. Skinner) have been developed and validated. These include the DAST -20 (Skinner & Goldberg, 1986), the DAST-10 (Bohn, Babor & Kranzler, 1991) ("DAST-10", see Appendix Q), and the DAST-A (Martino, Grilo, & Fehon, 2000), which is written for adolescents. The DAST-10 will be used in this study. Yudko et al. (2007) describe the composition of the measure:

> The DAST-10 contains 10 items from the original DAST. These are Items (1, 3, 5, 8, 9, 10, 15, 21, 23, and 24. Seven of the questions of DAST-10 are written identically to those in the original DAST, and three have been rewritten with minor modifications. (p. 190)

Grekin et al. (2010) state: "All items of the DAST-10 assess drug use in general, without referring to specific types of drugs" (Grekin et al., 2010, p. 720). The DAST-10 is a brief self-report measure, which takes less than 5 minutes to administer.

Cocco and Carey (1998) report the results of their factor analysis of the DAST-10 suggesting the factor structure of the DAST is unidimensional (eigenvalue of 6, all others were below 1). Cocco and Carey determined an optimum cut-off score on the DAST-10 greater than 1 or 2 for a diagnosis of substance abuse or dependence; Maisto, et al. (2000) concur. Drug abuse was measured with the DAST-10 (see Appendix Q). An optimal cut-off score of 2 was used in this study. For this study, the mean was 2.45 and the standard deviation .95.

The Alcohol Use Disorders Identification Test

The Alcohol Use Disorders Identification Test (Saunders, Aasland, Babor, de la Fuente, & Grant, 1993) (see Appendix S) was validated by an international group of investigators of the World Health Organization across gender, age, and culture (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). The instrument has been translated and used worldwide in research and as a screening instrument with general populations, clinical and non-clinical groups, veterans, the incarcerated, and college students. The AUDIT is used as a screening instrument for excess drinking, alcohol dependence, and as

a brief assessment of specific consequences of harmful drinking. The AUDIT can be self-administered or administered by professionals in non-health fields.

The AUDIT consists of 10 items related to recent use of alcohol, symptoms of alcohol dependence and problems due to excess drinking. Cassidy, Schmitz, Malla, (2008) state that "AUDIT scores are calculated by summing responses to all questions, each question is assigned a value of 0 to 4. AUDIT total scores can range from 0 to 40" (Cassidy, Schmitz, Malla, 2008, p. 28). The cut-off value of 8 points yielded a balance between sensitivity and specificity with indices of sensitivity to problematic drinking in the mid .90's, and specificities averaging in the .80's.

The AUDIT is unique compared to other self-report screening tests, as the scale was developed from data gathered from a large multinational sample and places emphasis on identifying problem (hazardous) drinking rather than long-term alcohol dependence and focuses primarily on recent symptoms rather than past symptoms of "ever". The AUDIT has been found to have a strong correlation with other measures of alcohol abuse and dependence. Bohn, Babor, and Kranzler (1995) and Hays, Merz, and Nicholas (1995) reported high internal consistency and high reliability.

Alcohol abuse was measured with the AUDIT. The cut-off value of 8 points was used in this study. For this study, the mean was 4.31 and the standard deviation 5.31.

Data Analysis

The raw data was imported from the internet into the Statistical Package for Social Sciences software version 22.0 for Windows for analysis. Descriptive statistics (mean, frequencies, standard deviation, and range) have been used to describe the study's

subscale scores. Table 12 presents Range, Means, and Standard Deviations for Subscale Scores.

Table 12

Range, Means, and Standard Deviations for Subscale Scores

	n	Range of Scale	Min. Score	Max. Score	*M*	*SD*
The Transgender Internalized Transphobia Scale	29	[1, 7]	1.37	5.06	2.74	0.99
The Stigmatization Scale	29	[1, 5]	1.62	4.14	3.16	0.80
Prejudice Events (Discrimination/Violence/ Verbal Abuse)	29	[0, 3]	0	3.00	1.24	1.02
Goldberg Depression Scale	29	[0, 5]	0	3.94	1.23	1.09
The SBQ-R Suicide Behaviors Questionnaire (Revised)	29	[3, 18]	3.00	14.00	8.41	3.45
The Zung Self-Rating Anxiety Scale	29	[25, 100]	28.75	76.25	46.81	12.05
Drug Abuse Screening Test	29	[0, 10]	1.00	5.00	2.45	0.95
Alcohol Use Disorder Identification Test	29	[0, 40]	0	22.00	4.31	5.31

Participant responses which have been operationalized using nominal or categorical data have been presented as frequencies and percentages to describe the number of participants that fit into a certain category and the percent of the sample that coincides with that category. Responses which have been operationalized as interval data have been presented using means and standard deviations. Because of the risk of Type I error when conducting numerous bivariate observations, multiple regression/multivariate analyses were conducted to assess which, if any, of the three minority stress variables

(internalized homophobia, perceived stigma, and prejudice events) predict which, if any, of the four mental health variables (depression, suicidal ideation, anxiety, and substance abuse).

Standard multiple regression was utilized with independent variables (predictors) entered simultaneously into the model. Variables were evaluated by their added value to the prediction of the dependent variable (criterion). An ANOVA *F* test was utilized to determine whether the independent variables collectively predict the dependent variable. The multiple correlation coefficient R-squared, was reported and utilized to calculate the proportion of variance in the dependent variable accounted for by the independent variables. A *t* test was utilized to estimate the significance for each predictor. Beta coefficients (partial regression coefficients) were utilized to assess the degree of prediction for each of the independent variables. According to Tabachnick and Fidell (2001), for significant predictors, every one unit increase in the predictor, the dependent variable will increase or decrease by the number of unstandardized beta coefficients.

The assumptions of multiple regression – linearity, homoscedasticity and absence of multicollinearity – were assessed. Linearity and homoscedasticity were assessed by examination of scatter plots. Multicollinearity was assessed utilizing VIF. According to Stevens (2002) VIF values over 10 will suggest the presence of multicollinearity. VIF for the independent variables were as follows: Internalized Transphobia, 1.29; Perceived Stigma, 1.64; Prejudice Events 1, 2.77; Prejudice Events 2, 1.07; Prejudice Events 3, 2.57.

Reliability

Cronbach's coefficient alpha reliability and internal consistency was conducted on all measures. According to Brace et al. (2006) "Cronbach's alpha provides the mean correlation between each pair of items and the number of items in a scale" (p. 331). The following rules, suggested by George and Mallery (2003), were used to evaluate alpha coefficients on a scale of: Excellent, >.9, Good, >.8, Acceptable, >.7, Questionable, >.6, Poor, >.5, and Unacceptable, <.5. Table 5, Cronbach's Alpha Reliability for Composite Scales, displays Cronbach's coefficient alpha reliability and internal consistency for the scales.

Table 13

Cronbach's Alpha Reliability for Composite Scales

Composite Scale	α	No. of items
The Transgender Internalized Transphobia Scale	.96	52
The Stigmatization Scale	.93	21
Prejudice Events (Discrimination/Violence/Verbal Abuse)	.70	3
Goldberg Depression Scale	.95	18
The SBQ-R Suicide Behaviors Questionnaire (Revised)	.79	4
The Zung Self-Rating Anxiety Scale	.87	20
Drug Abuse Screening Test	.30	10
Alcohol Use Disorder Identification Test	.85	9

Inferential Analysis

Research Question 1

RQ1: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and depression?

In order to address Research Question 1, a multiple regression was conducted. The independent variables in this analysis were internalized transphobia, perceived stigma, and the three prejudice events items. The dependent variable in this analysis was depression. Prior to the analysis, the assumptions of linearity, homoscedasticity and absence of multicollinearity were assessed. A scatterplot matrix showed that there were no non-linear trends in the data, so the assumption of linearity was met (see Figure 1). A scatterplot of residuals versus predicted values showed that the data were equally distributed around zero, so the assumption of homoscedasticity was met (see Figure 2). Finally, the VIF values for all of the independent variables were below 10, indicating that there was no multicollinearity present in the data.

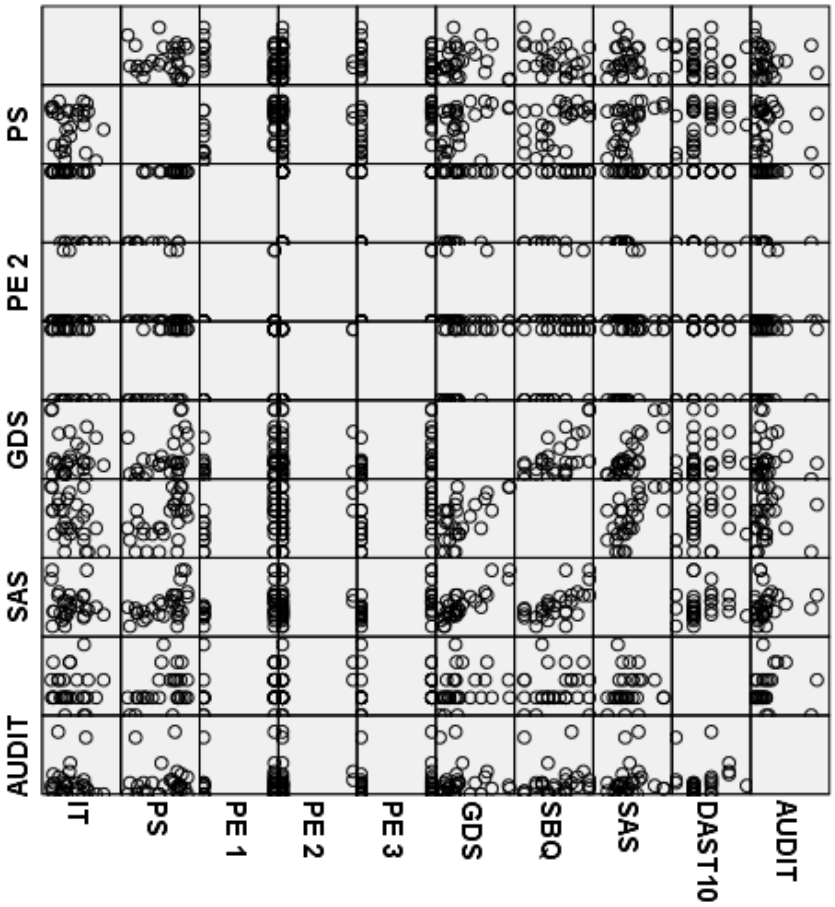

Figure 1. Scatterplot matrix for independent and dependent variables.

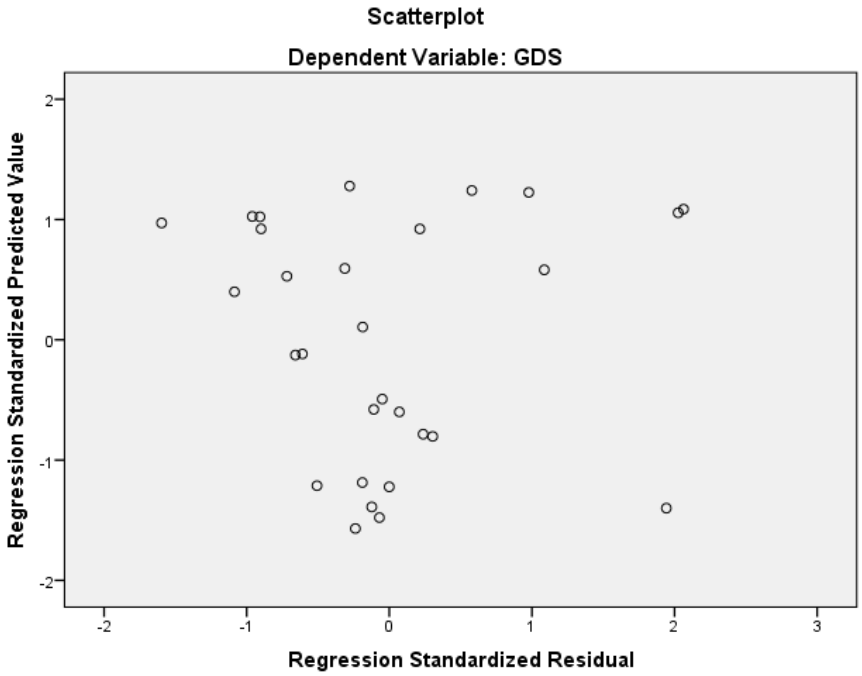

Figure 2. Residuals vs. predicted values for depression

Results for Overall Model Predicting Depression

The results for the overall model were not significant ($F(5, 23) = 2.02$, $p = .114$, $R^2 = 0.31$), indicating that internalized transphobia, perceived stigma, and prejudice events did not significantly predict depression. The R^2 value indicates that the set of independent variables accounted for 31% of the variability in depression. Table 8 displays the results of the regression, including 95% confidence intervals (point estimates) for the regression coefficients. See Table 14, below.

Table 14

Multiple Regression Predicting Depression

Independent Variable	*B*	Std. Error	Beta	*t*	Sig.	95% CI for *B* Lower	95% CI for *B* Upper
Internalized transphobia	0.01	0.22	0.01	0.06	.953	-0.43	0.46
Perceived stigma	0.36	0.30	0.27	1.20	.241	-0.26	0.99
Prejudice events 1	-0.31	0.65	-0.14	-0.48	.634	-1.66	1.03
Prejudice events 2	-0.25	0.76	-0.06	-0.33	.746	-1.82	1.32
Prejudice events 3	1.01	0.60	0.47	1.70	.103	-0.22	2.24

Note. $F(5, 23) = 2.02$, $p = .114$, $R^2 = 0.31$.

Research Question 2

RQ2: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and suicidal ideation?

In order to address Research Question 2, a multiple regression was conducted. The independent variables in this analysis were internalized transphobia, perceived stigma, and the three prejudice events items. The dependent variable in this analysis was suicidal ideation. Prior to the analysis, the assumptions of linearity, homoscedasticity and absence of multicollinearity were assessed. A scatterplot matrix showed that there were no nonlinear trends in the data, so the assumption of linearity was met (see Figure 1). A scatterplot of residuals versus predicted values showed that the data were equally distributed around zero, so the assumption of homoscedasticity was met (see Figure 3). Finally, the VIF values for all of the independent variables were below 10, indicating that there was no multicollinearity present in the data.

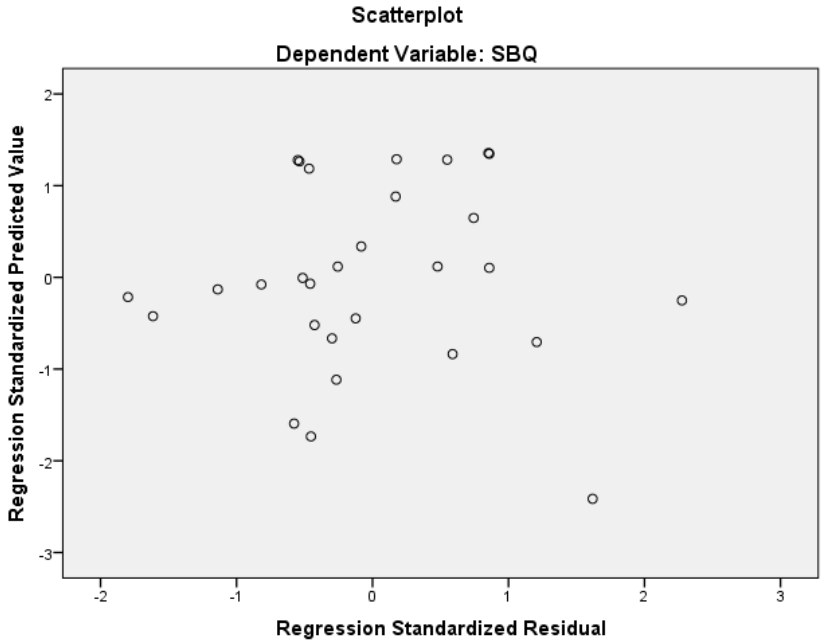

Figure 3. Residuals vs. predicted values for suicidal ideation

The results for the overall model were significant ($F(5, 23) = 4.39$, $p = .006$, $R^2 = 0.49$), indicating that the set of independent variables significantly predicted suicidal ideation. The R^2 value indicates that the set of independent variables accounted for 49% of the variability in suicidal ideation. Internalized transphobia significantly negatively predicted suicidal ideation ($B = -1.34$, $t = -2.28$, $p = .032$), indicating that participants with higher internalized transphobia scores tended to have lower suicidal ideation scores. Perceived stigma significantly positively predicted suicidal ideation ($B = 2.02$, $t = 2.45$, $p = .022$), indicating that participants with higher internalized stigmatization scores tended to have higher suicidal ideation scores. Table 9 displays the results of the regression, including 95% confidence intervals (point estimates) for the regression coefficients.

Table 15

Multiple Regression Predicting Suicidal Ideation

Independent Variable	*B*	Std. Error	Beta	*t*	Sig.	95% CI for *B* Lower	Upper
Internalized transphobia	-1.34	0.59	-0.39	-2.28	.032	-2.55	-0.13
Perceived stigma	2.02	0.83	0.47	2.45	.022	0.32	3.73
Prejudice events 1	0.20	1.77	0.03	0.11	.911	-3.46	3.86
Prejudice events 2	1.86	2.07	0.14	0.90	.378	-2.42	6.14
Prejudice events 3	0.12	1.62	0.02	0.07	.944	-3.24	3.47

Note. $F(5, 23) = 4.39$, $p = .006$, $R^2 = 0.49$.

Research Question 3

RQ3: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and anxiety?

In order to address Research Question 3, a multiple regression was conducted. The independent variables in this analysis were internalized transphobia, perceived stigma, and the three prejudice events items. The dependent variable in this analysis was anxiety. Prior to the analysis, the assumptions of linearity, homoscedasticity and absence of multicollinearity were assessed. A scatterplot matrix showed that there were no non-linear trends in the data, so the assumption of linearity was met (see Figure 1). A scatterplot of residuals versus predicted values showed that the data were equally distributed around zero, so the assumption of homoscedasticity was met (see Figure 4). Finally, the VIF values for all of the independent variables were below 10, indicating that there was no multicollinearity present in the data.

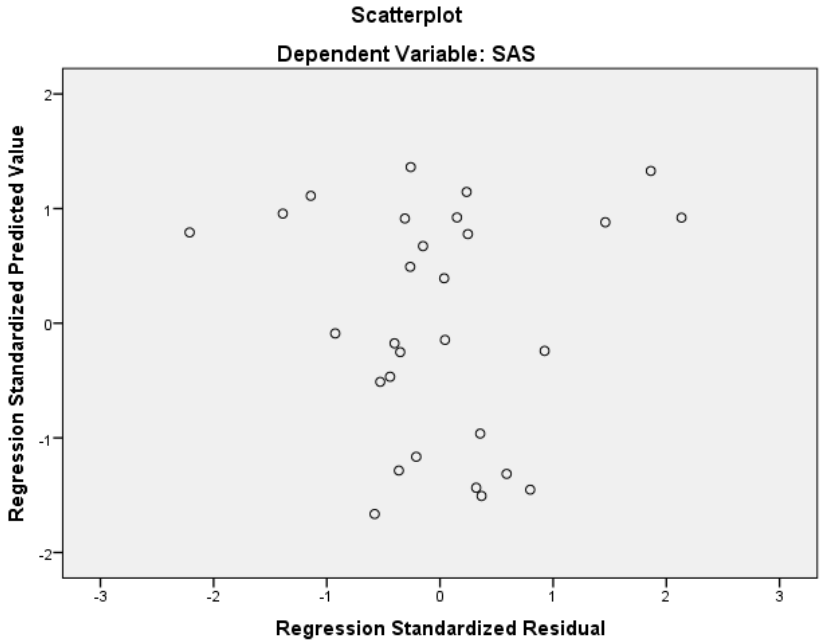

Figure 4. Residuals vs. predicted values for anxiety

The results for the overall model were not significant ($F(5, 23) = 2.48$, $p = .062$, $R^2 = 0.35$), indicating that internalized transphobia, perceived stigma, and prejudice events did not significantly predict anxiety. The R^2 value indicates that the set of independent variables accounted for 35% of the variability in anxiety. Table 16 displays the results of the regression, including 95% confidence intervals (point estimates) for the regression coefficients.

Table 16

Multiple Regression Predicting Anxiety

Independent Variable	*B*	Std. Error	Beta	*t*	Sig.	95% CI for *B* Lower	Upper
Internalized transphobia	0.90	2.31	0.08	0.39	.700	-3.88	5.69
Perceived stigma	4.90	3.25	0.33	1.51	.145	-1.82	11.63
Prejudice events 1	0.08	6.97	0.00	0.01	.991	-14.34	14.49
Prejudice events 2	-0.16	8.14	0.00	-0.02	.984	-17.01	16.68
Prejudice events 3	8.43	6.39	0.36	1.32	.200	-4.78	21.65

Note. $F(5, 23) = 2.48$, $p = .062$, $R^2 = 0.35$.

Research Question 4

RQ4: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and substance abuse?

In order to address Research Question 4, two multiple regressions were conducted. The independent variables in this analysis were internalized transphobia, perceived stigma, and the three prejudice events items. The dependent variables in this analysis were the two substance abuse measures (DAST and AUDIT). A separate regression was conducted for each dependent variable. Prior to the analysis, the assumptions of linearity, homoscedasticity and absence of multicollinearity were assessed. A scatterplot matrix showed that there were no non-linear trends in the data, so the assumption of linearity was met (see Figure 1). A scatterplot of residuals versus predicted values showed that the data were equally distributed around zero, so the assumption of homoscedasticity was met (see Figures 5 and 6). Finally, the VIF values for all of the independent variables were below 10, indicating that there was no multicollinearity present in the data.

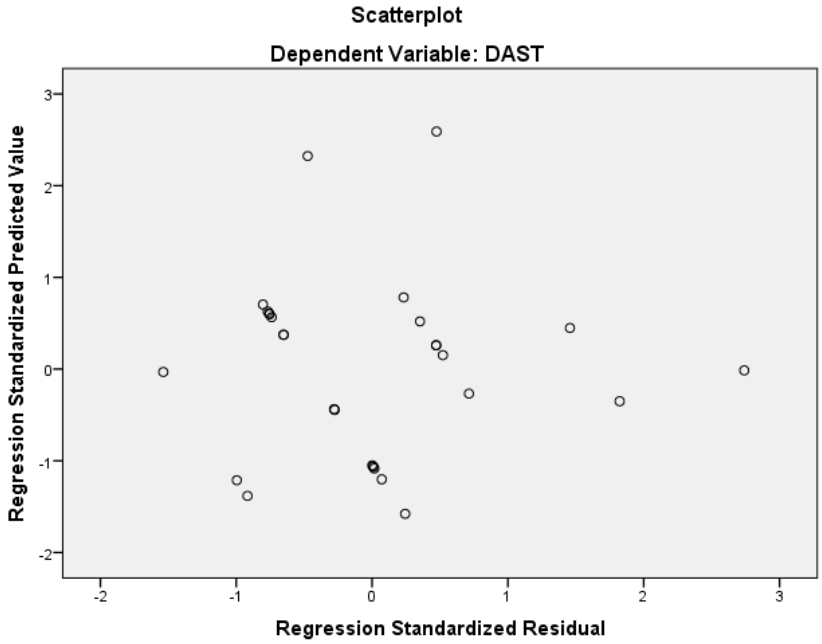

Figure 5. Residuals vs. predicted values for DAST scores.

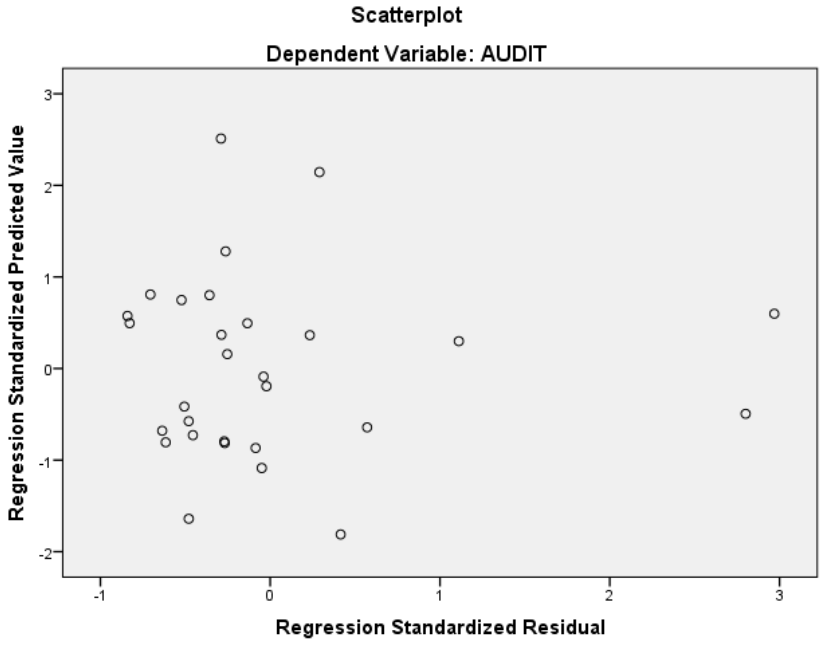

Figure 6. Residuals vs. predicted values for AUDIT scores

The results for the overall model were not significant for DAST scores ($F(5, 23) = 1.18$, $p = .350$, $R^2 = 0.20$) or AUDIT scores ($F(5, 23) = 0.15$, $p = .978$, $R^2 = 0.03$), indicating that internalized transphobia, perceived stigma, and prejudice events did not significantly predict substance abuse as measured by the DAST and AUDIT scores. The R^2 values indicate that the set of independent variables accounted for 20% and 3% of the variability in DAST and AUDIT scores respectively. Tables 18 and 19 display the results of the regressions predicting DAST and AUDIT scores, including 95% confidence intervals (point estimates) for the regression coefficients.

Table 17

Multiple Regression Predicting DAST Scores

						95% CI for *B*	
Independent Variable	*B*	Std. Error	Beta	*t*	Sig.	Lower	Upper
Internalized transphobia	-0.02	0.20	-0.02	-0.10	.924	-0.44	0.40
Perceived stigma	0.43	0.28	0.36	1.51	.144	-0.16	1.01
Prejudice events 1	-0.17	0.61	-0.09	-0.28	.780	-1.43	1.08
Prejudice events 2	0.97	0.71	0.26	1.37	.183	-0.49	2.44
Prejudice events 3	0.05	0.56	0.03	0.09	.931	-1.10	1.20

Note. $F(5, 23) = 1.18$, $p = .350$, $R^2 = 0.20$.

Table 18

Multiple Regression Predicting AUDIT Scores

						95% CI for *B*	
Independent Variable	*B*	Std. Error	Beta	*t*	Sig.	Lower	Upper
Internalized transphobia	-0.57	1.24	-0.11	-0.46	.649	-3.15	2.00
Perceived stigma	-0.36	1.75	-0.05	-0.20	.840	-3.98	3.26
Prejudice events 1	-0.76	3.75	-0.07	-0.20	.841	-8.52	7.00
Prejudice events 2	1.95	4.38	0.10	0.45	.660	-7.11	11.02
Prejudice events 3	1.26	3.44	0.12	0.37	.717	-5.85	8.38

Note. $F(5, 23) = 0.15$, $p = .978$, $R^2 = 0.03$.

Summary and Conclusion

This quantitative study investigated the relationship between minority stress and mental health for a sample (*N*=29) of the transgender population. A demographic survey, three measures of minority stress, and five measures of mental health were utilized to collect data from participants recruited from five professional or university websites, via an online survey. The results for Research Question 1, hypotheses 1a-1c, for the overall model were not significant, indicating that internalized transphobia, perceived stigma, and prejudice events did not significantly predict depression. The set of independent variables accounted for 31% of the variability in depression.

The results for Research Question 2, hypotheses 2a-2c, indicated that the overall minority stress model significantly predicted suicidal ideation as measured by the SBQ-R. The set of independent variables accounted for 49% of the variability in suicidal ideation. Regarding hypothesis 2a, internalized transphobia significantly negatively predicted suicidal ideation, suggesting that participants with higher internalized transphobia scores tended to have lower suicidal ideation scores. Regarding hypothesis 2b, perceived stigma significantly positively predicted suicidal ideation, suggesting that participants with higher perceived stigma scores tended to have higher suicidal ideation scores. Regarding hypothesis 2c, prejudice events did not predict suicidal ideation.

The results for Research Question 3, hypotheses 3a-3c, for the overall model were not significant, indicating that internalized transphobia, perceived stigma, and prejudice events did not significantly predict anxiety. The set of independent variables accounted for 33% of the variability in anxiety. The results for Research Question 4, hypotheses 4a-4c, for the overall model were not significant, indicating that internalized transphobia,

perceived stigma, and prejudice events did not significantly predict substance abuse. The set of independent variables accounted for 20% and for 3% of the variability in DAST and AUDIT scores, respectively. Chapter 5 will conclude this research study with a presentation of an in-depth interpretation of these findings. Limitations, recommendations for future research, and implications for positive social change will also be discussed.

Chapter 5: Discussion and Conclusion

Introduction

The purpose of this study was to investigate the influence of minority stress upon the mental health of a sample from the transgender population. Minority stress was operationalized with three instruments measuring internalized transphobia (The Transgender Internalized Transphobia Scale), perceived stigma (The Stigmatization Scale), and prejudice events (The Prejudice Events Questionnaire). Mental health was operationalized with five instruments, measuring depression (The Goldberg Depression Scale), suicidal ideation (The Suicide Behaviors Questionnaire-Revised), anxiety (The Zung Self-Rating Anxiety Scale), and substance abuse (The Drug Abuse Screening Test and The Alcohol Use Disorders Identification Test). I used an online survey to collect data from a final sample of 29 participants who were age 18 and older, able to give informed consent, and who currently identified as either MtF or FtM transgender persons. The period of recruitment was August 7, 2014 through February 3, 2015.

I predicted that each minority stressor would have an independent effect upon each mental health variable and I predicted that when the effects of the minority stressors were combined, each would maintain an independent effect on mental health, so that their combined effect would be greater than their individual effects. Multiple regression/multivariate analyses was conducted to assess which, if any, of the three minority stress variables (internalized homophobia, perceived stigma, and prejudice events) predicted which, if any, of the four mental health variables (depression, suicidal ideation, anxiety, and substance abuse). Multiple regression was conducted to analyze the raw data. I conducted this study to clarify the relationship between minority stress and

mental health for the transgender population. Better understanding of the influence of minority stress on mental health may inform health providers and policymakers who are in a position to improve services, programs and inclusiveness for transgender individuals.

Findings

Research Question 1

RQ1: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and depression?

There were three null and three alternative hypotheses associated with RQ1:

H_o #1a: Internalized transphobia as measured by the TGITS does not predict depression as measured by The Goldberg Depression Scale.

H_a #1a: Internalized transphobia as measured by the TGITS predicts depression as measured by the GDS.

H_o #2b: Perceived stigma as measured by the SS does not predict depression as measured by the GDS.

H_a #2b: Perceived stigma as measured by The SS predicts depression as measured by the GDS.

H_o #2c: Prejudice events as measured by three single item yes/no questions does not predict depression as measured by the GDS.

H_a #2c: Prejudice events as measured by three single item yes/no questions does not predict depression as measured by the GDS.

To investigate Research Question 1, I conducted a multiple regression to assess which, if any, of the minority stress variables predicted depression. There were five independent, or predictor, variables for minority stress (internalized transphobia,

perceived stigma, and prejudice events) measured by the TGITS, the SS, and three separate questions pertaining to experiences of prejudice events (discrimination, violence, and verbal abuse) over the past year. The dependent or outcome variable was depression, measured by the GDS. The results of the statistical analyses for the overall model, Hypotheses 1a-1c, were not significant ($F(5, 23) = 2.02$, $p = .114$, $R^2 = 0.31$), indicating that internalized transphobia, perceived stigma, and prejudice events did not significantly predict depression for this sample. The R^2 value indicates that the set of independent variables accounted for 31% of the variability in depression.

Research Question 2

RQ2: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and suicidal ideation?

There were three null and three alternative hypotheses associated with RQ2:

H_o #2a: Internalized transphobia as measured by the TGITS does not predict suicidal ideation as measured by the SBQ-R.

H_a #2a: Internalized transphobia as measured by TGITS predicts suicidal ideation as measured by the SBQ-R.

H_o #2b: Perceived stigma as measured by the SS does not predict suicidal ideation as measured by the SBQ-R.

H_a #2b: Perceived stigma as measured by the SS predicts suicidal ideation as measured by the SBQ-R.

H_o #2c: Prejudice events as measured by three single item yes/no questions does not predict suicidal ideation as measured by the SBQ-R.

Ha #2c: Prejudice events as measured by three single item yes/no questions predicts suicidal ideation as measured by the SBQR.

To investigate Research Question 2, I conducted a multiple regression to assess which, if any, of the minority stress variables predicted suicidal ideation. There were five independent, or predictor, variables for minority stress (internalized transphobia, perceived stigma, and prejudice events) measured by the TGITS, the SS, and three separate questions pertaining to experiences of prejudice events (discrimination, violence, and verbal abuse) over the past year. The dependent or outcome variable was suicidal ideation, measured by the SBQ-R.

The results for the overall model, Hypotheses 2a-2c were significant ($F(5, 23) = 4.39$, $p = .006$, $R^2 = 0.49$), indicating that the set of independent variables significantly predicted suicidal ideation. The R^2 value indicates that the set of independent variables accounted for 49% of the variability in suicidal ideation. Contrary to expectations, internalized transphobia significantly *negatively* predicted suicidal ideation ($B = -1.34$, $t = -2.28$, $p = .032$), indicating that participants with higher internalized transphobia scores tended to have lower suicidal ideation scores. As expected, perceived stigma significantly *positively* predicted suicidal ideation ($B = 2.02$, $t = 2.45$, $p = .022$), indicating that participants with higher perceived stigma scores tended to have higher suicidal ideation scores.

Research Question 3

RQ3: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and anxiety?

There were three null and three alternative hypotheses associated with RQ3:

H_o #3a: Internalized transphobia as measured by the TGITS does not predict anxiety as measured by the Zung SAS.

H_a #3a: Internalized transphobia as measured by TGITS predicts anxiety as measured by the Zung SAS.

H_o #3b: Perceived stigma as measured by the SS does not predict anxiety as measured by the Zung SAS.

H_a #3b: Perceived stigma as measured by the SS predicts anxiety as measured by the Zung SAS.

H_o #3c: Prejudice events as measured by three single item yes/no questions does not predict anxiety as measured by the Zung SAS.

H_a #3c: Prejudice events as measured by three single item yes/no questions predicts anxiety as measured by the Zung SAS.

To investigate Research Question 3, I conducted a multiple regression was to assess which, if any, of the minority stress variables predict anxiety. There were five independent, or predictor, variables for minority stress (internalized transphobia, perceived stigma, and prejudice events) measured by the TGITS, the SS, and three separate questions pertaining to experiences of prejudice events (discrimination, violence, and verbal abuse) over the past year. The dependent or outcome variable was anxiety, measured by the Zung SAS. The results for the overall model, Hypotheses 3a-3c, were not significant ($F(5, 23) = 2.48$, $p = .062$, $R^2 = 0.35$), indicating that internalized transphobia, perceived stigma, and prejudice events did not significantly predict anxiety. The R^2 value indicates that the set of independent variables accounted for 35% of the variability in anxiety.

Research Question 4

RQ4: What is the relationship between minority stress (internalized transphobia, perceived stigma, and prejudice events) and substance abuse (drug and alcohol)?

There were three null and three alternative hypotheses associated with RQ4:

H_o #4a: Internalized transphobia as measured by the TGITS does not predict substance abuse as measured by the DAST-20 and the AUDIT.

H_a #4a: Internalized transphobia as measured by the TGITS predicts substance abuse as measured by the DAST-20 and the AUDIT.

H_o #4b: Perceived stigma as measured by the SS does not predict substance abuse as measured by the DAST-20 and the AUDIT.

H_a #4a: Perceived stigma as measured by the SS predicts substance abuse as measured by the DAST-20 and the AUDIT.

H_o #4a: Prejudice events as measured by three single-item yes/no questions does not predict substance abuse as measured by the DAST-20 and the AUDIT.

H_a #4a: Prejudice events as measured by three single item yes/no questions predicts substance abuse as measured by the DAST-20 and the AUDIT.

To investigate Research Question 4, I conducted two multiple regressions. The independent variables in this analysis were internalized transphobia, perceived stigma, and the three prejudice events items. There were five independent, or predictor, variables for minority stress (internalized transphobia, perceived stigma, and prejudice events) measured by the TGITS, the SS, and three separate questions pertaining to experiences of prejudice events (discrimination, violence, verbal abuse) over the past year. The dependent variables in this analysis were two substance abuse measures (DAST-20 and

AUDIT). A separate regression was conducted for each dependent variable (test measure). The results for Research Question 4, Hypotheses 4a-4c, were not significant for DAST scores ($F(5, 23) = 1.18$, $p = .350$, $R^2 = 0.20$) or AUDIT scores ($F(5, 23) = 0.15$, $p = .978$, $R^2 = 0.03$), indicating that internalized transphobia, perceived stigma, and prejudice events did not significantly predict substance abuse as measured by the DAST and AUDIT scores. The R^2 values indicate that the set of independent variables accounted for 20% and 3% of the variability in DAST and AUDIT scores respectively.

Interpretation of Findings

Minority Stress and Depression

As discussed previously in Chapter 2, minority stress (operationalized as internalized homophobia, perceived stigma, and prejudice events) has been associated with distress and an increased risk for mental health problems (operationalized as depression, suicidal ideation, anxiety, and substance abuse) for minority populations (Abelson et al., 2006; Gonsiorek & Rudolph, 1991; Marmor, 1980; Meyer, 2003; Sugano et al., 2006). Utilizing the Goldberg Depression Scale to measure the depression variable, this study did not find the predicted relationship (Research Question 1) between the overall minority stress model and depression, nor any of the components of the model (internalized homophobia, perceived stigma, prejudice events). However, the previous research reviewed in Chapter 2, and a growing body of research conducted since data for this study was collected, have found higher rates of depression within the transgender population associated with the components of the minority stress model.

McCarthy, Fisher, Irwin, Coleman and Pelster (2014) and Reisner et al. (2016) found that perceived discrimination and stigmatization correlated with symptoms of

clinical depression. In support of the minority stress model Bockting, Miner, Romine, Hamilton and Coleman (2013) found, as they expected, that high rates of depression and anxiety were positively associated with stigmatization. Nemoto, Bodeker, and Iwamoto (2011), Nuttbrock et al. (2010), and Rotondi et al. (2011) demonstrated a positive association between depression and trans victimization (prejudice events).

Newcomb and Mustanski (2010), in a meta-analytic review, found that internalized homophobia within the LGB population was strongly associated with depression and anxiety. Nuttbrock et al. (2010) reported that the incidence of major depression in their MtF transgender sample was three times higher than that of the general population. Bockting et al. (2013) reported in their study of MtF and FtM transgender persons that high rates of clinical depression and anxiety were positively associated with social stigma, and mediated by social support. In more recent research on the transgender population, Reisner et al. (2016) reported that symptoms of depression and anxiety were significantly higher among gender minority research participants compared to participants who were not gender minorities. Puckett and Levitt (2015) examined internalized stigmatization with their LGBT sample and discussed heterosexism and transphobia, however, the researchers did not discuss the transgender population in as much detail as they did for the LGB population. While the LGB research base has grown significantly, gaps in the literature for the transgender population still exist. Additional research is needed on the relationship between minority stress and mental health for the transgender population.

Research on the relationship between mental health issues and educational level for the general population suggests that higher education achievement is positively

correlated with better mental health (McFarland & Wagner, 2015; Mirowsky & Ross, 2003; Pearlin et al., 2005). McFarland and Wagner (2015) conducted twin research on depression and education attempting to minimize the effects of threats to causal inference by variables such as SES. They reported an inverse relationship between depression and educational achievement, a finding that has been consistently supported throughout the literature. While there is no clear explanation for this relationship, Mirowsky and Ross (2003) and Pearlin et al. (2005) developed conceptual models suggesting that higher education attenuates the number and severity of life stressors that may trigger depressive symptoms. However, no one model is believed to explain the relationship.

While the majority of studies on the transgender population have gathered data on demographic variables such as level of education, there is no comparable research that focuses specifically on the transgender population to address the relationship between educational attainment and depression or other mental health variables. The literature on the relationship between education and mental health issues for the LGBT population has focused largely on visibility, identity disclosure, and victimization experiences of high school students, and legal issues on bathroom access for transgender students in schools. Kosciw, Palmer, and Kull (2015) report that ecological contextual factors, i.e., urban vs. rural location of school and attitudes of staff, had a significant influence in their model of educational outcome and well-being of LGBT students. Walsemann, Gee, and Gentile (2015) examine contextual mental health related factors for all college students, such as student loan debt, SES, and ethnicity and race.

The current study may have not found significant levels of depression among participants, possibly related to recruitment methods, which were limited due to my

resources, and the requirements of Walden University for site selection. This study had more stringent inclusion criteria for transgender identity in the demographics than the larger, more recent studies. It is also likely that the large amount of missing data and drop out numbers contributing to the study's small sample size was a prominent factor impacting the results of the data analysis.

Minority Stress and Suicidal Ideation

The analyses of this study supported the hypothesized relationship between the overall minority stress model (internalized transphobia, perceived stigma, and prejudice events) and suicidal ideation (Research Question 2), as measured with The Suicide Behaviors Questionnaire-Revised, indicating that the set of independent variables significantly predicted suicidal ideation. Clements-Nolle et al. (2006) investigated the predictors of attempted suicide in the transgender population. The authors found that being younger than 25 years old, having a history of transgender related victimization (i.e., discrimination, sexual abuse), substance abuse, and depression were predictive of suicide attempts. Boza and Perry (2014), in their online survey, reported that almost half of their 243 transgender participants had a history of suicide attempts attributed to their transgender status. Testa et al. (2017) reconfirmed the results of many other studies, finding a notably high rate of suicide attempts and suicidal ideation within the transgender population. Testa et al. also found that experiences of discrimination and victimization are associated with suicidal ideation and suicide attempts.

Most of the research literature on internalized transphobia (often termed internalized stigma or internalized heterosexism) has focused on investigating coping skills (Budge et al., 2012; Budge, Adelson, & Howard, 2013; Mizok & Muser, 2014),

coping with external transphobia in employment (Conron et al., 2012; Grant et al., 2011), and the effect of internalized stigma on identity development (Grossman, D'Augelli, & Frank, 2011; Sanchez & Vilain, 2009; Wren, 2012). This study found a significant relationship between stigmatization and suicidal ideation. The research literature supports the relationship found in the current study between stigmatization and suicidal ideation. For future research, it is recommended that this relationship be further explored to define the antecedents of suicidal ideation, the context of suicidal behavior, and prevention.

The Stigmatization Scale (Harvey, 2001) was utilized in the current study to assess the perceived stigma variable. The standard deviation in this test for the sample in the current study was .80, lower than the standard deviation on any of the other tests in this study, indicating less variability in scores, scores that were closer to the mean, more power to the test, and greater chance of statistical significance. Perceived stigma significantly positively predicted suicidal ideation ($B = 2.02$, $t = 2.45$, $p = .022$), indicating that participants with higher internalized stigmatization scores tended to have higher suicidal ideation scores. Although sparse, the empirical literature on stigma and the transgender population suggests that as for many other minority populations, stigma has negative effects on self-esteem (Austin & Goodman, 2017); identity conflict (Kashubeck-West, Whiteley, Vossenkemper, Robinson, & Deitz (2017); and interpersonal difficulties, i.e., intimate partner violence (Calton, Cattaneo, & Gebhard, 2015).

Another significant finding for the predicted values of suicidal ideation in this study is that participants with higher perceived stigma scores tended to have higher suicidal ideation scores. This finding is reflected throughout the research on minority

stress within the transgender and gender non-conforming population. For example, expanding the research on the minority stress model to the transgender population, Testa, Habarth, Peta, Balsam, and Bockting (2015) developed the minority stress and resilience model, which focuses on external and internal stressors of transgender experience, such as mental health, social support, and general life stress. This model suggests four gender-based external stressors of victimization, rejection, discrimination and identity non-affirmation lead to internalized transphobia, hopelessness for the future, and a higher rate of suicide attempts. Goldblum et al. (2012) found that transgender people who had been victimized were about four times more likely to attempt suicide.

Another direction of research seeking to explain suicidal ideation and behavior is the interpersonal-psychological model (Testa et al., 2017; Van Orden, Witte, Gordon, Bender, & Joiner, 2008). This model focuses on the concepts of thwarted belongingness and perceived burdensomeness, two factors in the Interpersonal Needs Questionnaire (Van Orden et al., 2012). Thwarted belongingness refers to absence of social support and feelings of rejection. Perceived burdensomeness refers to internalized self-hatred, feeling like a burden upon others, often an experience of those who are homeless, unemployed, feeling shame and feeling unwanted (Van Orden et al., 2010).

Counter to the literature which supports a relationship associating the two variables (Breslow et al., 2015; James et al., 2016; Mizok & Mueser, 2014; Nemoto et al., 2004; Nungesser, 1983; Shidlo, 1994; Szymanski & Chung, 2001b; Testa et al., 2017), this study found that internalized transphobia *negatively* predicted suicidal ideation, indicating that participants with higher internalized transphobia scores tended to have lower suicidal ideation scores. According to Hellman, Sudderth, and Avery (2002) and

Kidd et al. (2011), internalized transphobia is a major factor in the higher rates of mental health problems and suicidality among transgender individuals. The negatively correlated relationship between internalized transphobia and suicidal ideation found in this study has not been found in other research on this population. This may be due to the small sample size of this study, or to features of the sample itself which are not known or understood, i.e., demographic attributes such as age or level of education, or measurement by instruments not validated for the transgender population. In the current study, the finding of relationship between internalized transphobia and suicidal ideation differed from the results for stigma and prejudice events, where no relationship was found.

Minority Stress and Anxiety

The current study did not support the predicted relationship between the overall minority stress model (internalized transphobia, perceived stigma, and prejudice events) and anxiety, as measured by the Zung Self-Rating Anxiety Scale. In contrast, there is a significant amount of literature showing that the transgender population has a higher incidence of anxiety and distress (Bockting et al., 2013; Budge, Adelson & Howard, 2013; Pflum et al., 2015; Reisner et al., 2016). There are a number of studies in the literature that address anxiety-related sequelae of the factors of the minority stress model. For example, Reisner et al. (2016) investigated discrimination and posttraumatic stress disorder symptoms, utilizing multiple linear regression models. The authors found an independent association of common daily discrimination experiences with posttraumatic stress symptoms. Utilizing the Generalized Anxiety Disorder scale, the researchers found that general social support accounted for most variance in anxiety symptoms in their trans

female spectrum group. The Reisner et al. (2016) study included 865 participants along a more diverse continuum of transgender people, which included those identifying as gender nonconforming.

Bockting et al. (2013) found, in their study of stigma, mental health, and resilience, a high rate of anxiety (33.2%) among their transgender participants, compared to community norms. The researchers found positive associations between stigma, passing, and outness. When they regressed the high rates of mental health distress (i.e., anxiety and depression) on a measure of gender dysphoria, they found no association. This finding strengthened their interpretation of the relationships. A study by Pflum et al. (2015), researching the relationship between mental health symptoms and trans community social support, also found significantly higher levels of anxiety and depression among a sample of the transgender and gender non-conforming community than among the general population. Social support was found to be a mediating factor.

Goldberg, Matte, MacMillan, and Hudspith (2003) and Grant (2011) reported an increase in transgender individuals utilizing mental health counseling services. Bockting et al. (2013) found that peer support was a significant mediating factor between stigma and mental health, noting the need for access to mental health services that affirm trans identities. Pflum et al. (2015) found that connectedness with the transgender community was a positive influence on mental health and a mediator for the reduction of stress and stigma. Trans affirming support groups and social media provide connectedness that benefit trans people. While the processes are not well understood and the literature is sparse (Budge, Adelson & Howard, 2013), greater social support and specific coping

mechanisms have been theorized to be related to improved mental health for the transgender population.

While the assessment of social support was beyond the scope of this study, there is a growing body of research, which focuses on the relationship between social support and mental health for the trans population. Meyer (2003) suggested that facilitative coping mechanisms mediated the impact of minority stress, while avoidant coping exacerbated stress for sexual minorities. Budge, Adelson, and Howard (2013) reported, in their study of transgender individuals who were transitioning, that the reduction of avoidant coping strategies and increased social support mediated psychological distress, defined in their study as anxiety and depression. Pinto, Melendez, and Spector (2008) demonstrated that social support networks for the transgender population serve to decrease stress and to disseminate information on health concerns and political issues.

In contrast to the results of this study, anxiety has been shown in the literature discussed in Chapter 2, to be a prominent mental health problem for transgender people. The current study's sample, due to more stringent selection criteria in terms of transgender identity (MtF and FtM), presented less diversity along the transgender spectrum than more recent studies, which is likely to have resulted in less robust findings for the anxiety variable. The current study may have not found significant levels of anxiety, not only related to the factor of less diversity of transgender identity compared to other research that did find significant levels of anxiety within its participants, but also due to the current study's small sample size, as a result of the recruitment methods. Another salient explanation for not finding a significant level of anxiety among the participants in the current study may be related to missing data. Among the 49 potential

participants eliminated for missing data, only one individual (see Table 2), completed the Zung SAS. Theoretically, these potential participants may have avoided this instrument due to the triggering of anxiety, and thus, were not represented in the results that may have shown an expected high rate of anxiety among the transgender individuals.

Minority Stress and Substance Use

The findings for the current study did not support the predicted relationship between the overall minority stress model (internalized transphobia, perceived stigma, and prejudice events) and substance abuse. Bockting and Avery (2005) published a series of needs assessment studies drawing participants from the transgender population in the United States. Every study that assessed drug/alcohol use reported higher rates of use. Clements-Nolle et al. (2006) reported a higher rate of substance abuse than found in the general population among their transgender sample.

It has long been recognized that a history of physical and sexual violence is associated with increased risk for mental health problems. The higher incidence of violence among the transgender population has been associated with a higher rate of substance abuse. Xavier, Bobbin, Singer, and Budd (2005) reported 48% of their sample of 248 transgender participants had histories of substance abuse. Santos et al. (2014) discuss the negative health consequences for transgender women who abuse alcohol and drugs, especially HIV and its transmission. Coulter et al. (2015) investigated victimization related to alcohol abuse, finding that compared to non-transgendered persons, transgender people experienced more sexual assaults and suicidal ideation and more associated alcohol abuse. Rowe, Santos, McFarland, and Wilson (2015) found that transgender youth who experience discrimination at school have an increased risk of

alcohol and drug abuse. Nuttbrock et al. (2014) reported that psychological or physical abuse among transgender women is associated with dramatically higher risk of alcohol and drug abuse. Coulter et al. (2015) found that transgender-identified individuals who were assaulted or threatened reported greater heavy alcohol use.

Keuroghlian, Reisner, White and Weiss (2015) found that transgender people have a higher prevalence of substance use and substance use disorder than the general population. Keuroghlian et al. also identified barriers to treatment for transgender individuals, such as transphobia among treatment professionals and treatment populations, and challenges to maintaining gender identity while in treatment. Bullying, assaults, and dismissal from treatment programs are not uncommon. Sex workers have been found to have increased substance use (Nuttbrock et al., 2014). Poor access to health care for transgender persons contributes to poorer mental and physical health for this population (Hotton, Garofalo, Kuhns & Johnson, 2013; Wolf & Dew, 2012). While empirical research has found that a higher incidence of substance abuse within the LGBT population compared to the general population, according to Santos et al. (2014), there are no population based estimates available specific to transgender people, although convenience samples have shown higher prevalence.

The current study, which utilized a convenience sample did not find higher substance use/abuse among participants. Reasons for non-concurrence in findings, similar to those for the depression and anxiety variables, may be attributed to the current study's smaller sample size, demographic differences, and less diversity than in previous research. In addition, there were a number of limitations of the study that may have attenuated the results of the study's analysis.

Limitations of the Study

The current study had a number of unexpected limitations related to several factors, including the instruments used to measure the minority stress variable, recruitment of participants and data collection, characteristics of the sample, and data analysis. These include the use of measures not validated for use with the transgender population, selection bias related to methods of recruitment, common issues associated with the use of self-report measures, missing data, and sample size.

Instruments

This study utilized self-report measures to gather data. At the time I designed the study, there were no measures available that had been validated for use specifically with the transgender population, which may have resulted in a degree of measurement error. However, the unaltered measures are valid and are in popular use in the research and screening for depression, suicidal ideation, anxiety, and substance abuse in other populations.

A strength of this study is its extension of the concept of minority stress to the transgender population and the attempt to discover relationships between mental health variables and minority stress. Another strength of this study is the development of a measure of internalized transphobia for the study sample. In the absence of the availability of a validated measure of internalized transphobia when this study was designed, I developed the TGITS (See Appendix G) from the LIHS (Syzmanski & Chung, 2001a) (See Appendix D), originally developed for use with the lesbian population, with the authors' permission (See Appendix E). From the 52-item LIHS, the items were adapted for the transgender population, for example, Item 15 of the LIHS, "I

am not worried about anyone finding out that I am a lesbian," became "I am not worried about anyone finding out that I am a transgender person".

Recruitment and Data Collection

The sites for the current study, approved by the university review board to obtain research participants and referrals, included known and established organizations –the APA, APAGS Division 44 (LGBT) of the APA, APA's Division 17 (Counseling Psychology), The Association of Women in Psychology in collaboration with Division 35 of the APA at POWR-L listserv website, WPATH, and Psychological Research on the Net (sponsored by Hanover College Psychology Department).

The snowball method of recruitment was not as productive as expected for obtaining a large data sample. Another potential explanation for the difficulty in obtaining a larger sample are the facts that the transgender population is still a hidden minority population, wary of psychological research and much less likely to volunteer to participate than even the LGB population. In addition, the current study's inclusion criteria limited participation to individuals who endorsed one or more of the transgender self-identifications included in the demographic section of the survey. About 25% of the initial sample did not choose a transgender identity and were excluded. About 30% of the initial sample had more than 20% missing data and were excluded, leaving a sample of 29 individuals who completed the study. Broader recruitment of individuals with more diverse trans identities and the expansion of the inclusion criteria to include them have been undertaken in recent research, such as the U.S. Transgender Survey (James et al., 2016) study. However, at the time of the design of the current study, diverse identity criteria were not in common use.

Since the time when the data collection was completed for this study (February, 2015), there has been a dramatic increase in empirical research and peer reviewed journal articles on the transgender population. Studies that have found relationships between variables such as minority stress and mental health have typically had access to large data bases and have received funding through government grants, public health organizations, and/or universities. The majority of well-conducted published empirical research on the transgender population have been funded studies that utilize large national samples, large databases from medical institutions, large-scale health surveys, and studies that have pooled resources from several sources. In addition, some of these studies had access to funding that allowed researchers to offer compensation for participation. Furthermore, virtually all the published studies were conducted by a team of researchers, which supported gathering data from a larger sample than was possible for this study. Studies conducted by professional organizations with access to large data banks of transgender health records were able to achieve greater power and validity in their research, thus increasing generalizability. In the literature, the research with large samples, as explained above, had access to organizational data banks and recruiting methods that accessed more culturally diverse samples.

Bockting at al. (2013), Reisner et al. (2016), and Testa et al. (2012, 2015), recruited large, diverse, community-based samples to research depression and suicidal behaviors among the transgender population. Goldblum et al. (2012) utilized a subsample of the Virginia Transgender Health Initiative Survey to investigate gender-based victimization and suicidal behaviors among transgender high school students. Pflum et al. (2015), with access to data from the internet-based Transgender Health Survey,

researched symptoms of depression and anxiety related to community support. Substance abuse among the transgender population has been examined by Nuttbrock et al. (2015) in a longitudinal study on the effects of stigma on substance abuse conducted in the New York City area, and by Santos et al. (2014) who conducted a study in San Francisco on the association of alcohol and drug use to HIV infection. Access to large data banks, state and municipally funded research, and research conducted by teams yielded studies that demonstrated validity, reliability, and generalizability.

Characteristics of the Sample

In this study, the small sample size (*N*=29) is very likely to have had an impact on the ability of the analysis of the data to detect the hypothesized relationships, and thus diminished the statistical power and the validity of the interpretations. In the planning of the study, the determination of the sample size for the study utilized G*Power 3. With a .15 medium effect size, .80 level of power, and a .05 significance level, a minimum of 92 participants was calculated as necessary to achieve empirical validity. From an initial survey response of 121 individuals, a total of 83 survey respondents did not meet the study's criteria for participation, or had significant missing data and were eliminated from the final sample. Specifically, four did not provide consent to participate; six resided outside of North America; 49 had an unacceptable amount of missing data (more than 20%); 32 did not endorse a transgender identity category; and one self-identified as intersex. A final sample of 29 (*N*=29) was obtained after the exclusion of those who did not meet criteria for participation. The missing data was categorized as non-random, as there was an observed steep drop in responding after the demographic questionnaire, dropping from 39 on the demographic questionnaire to 4 on the next measure (the

TGITS), then a gradual, consistent drop to 0 and 1 on the DAST and AUDIT, respectively.

Participants recruited and included in this study tended to be less diverse than in more recent research on the general transgender population. For example, the majority of participants were European American and college educated. The stringent inclusion criteria for transgender identity in this study, compared to more recent studies, can be attributed to the fact that at the time of the planning of the current study, the diversity of identity categories had not yet appeared in the literature; transgender people were defined as male-to-female transgender or female-to-male transgender. More recent research now includes a much broader spectrum of gender identity, such as that presented in the U.S. Transgender Survey (James et al., 2016), where 26 different identity categories were reported.

Recently, researchers have expanded their inclusion criteria to include the diverse self-identities found among transgender people, most significantly, the gender non-conforming category. The U.S. Transgender Survey (James, et al., 2016) demonstrates the progressive expansion in diversity of gender variant identities, listing 26 different identity terms reported by the respondents. For their analysis, however, the survey researchers utilized six categories: Woman, man, trans woman (MtF), trans man (FtM), nonbinary, genderqueer, or crossdresser. Respondents could have responded to a maximum of 324 items on the survey, which was designed to take 60 minutes to complete. The survey was designed with skip logic, which allowed for a longer length and a more complex survey to move through the questionnaires more quickly. Outreach efforts into a wide variety of communities allowed the researchers to reach trans people

throughout the entire United States and its territories who may have had limited access to online technology. About 400 organizations participated in supporting the survey with outreach events to recruit participants, who were offered cash prize incentives. Furthermore, the survey was offered in both English and Spanish.

The U.S. Transgender Survey (James et al., 2016) is an example of more recent research that has obtained a large, diverse sample in terms of race and ethnicity, geographic location, citizenship, age, educational attainment, and income and employment status, among other characteristics. Larger samples attain greater generalizability by a closer approximation to population parameters. The participants in this study can be characterized as a primarily urban, European American, college educated sample, with a median yearly salary of about $25,000. Almost half of the sample participants were currently students.

Generalizability of the results of the current study was limited due to the demographic characteristics of the sample, i.e., about 72% of the sample had at least a college degree; and about 58% were students. In contrast, in the most comprehensive study of the transgender population to date, The Report of the U.S. Transgender Survey (James et al., 2016), indicated that 27,715 (38%) of their participants had received college degree, suggesting that the sample in the current study differed significantly from the more representative U.S. Transgender Survey study on this demographic variable.

Data Analysis

It is likely that the current study's small sample size with a lowered power of the statistical analysis precluded the kinds of significant findings that would have lent support for the more definitive relationship that the larger studies found between the

minority stress model and the mental health variables. The current study's small sample size occurred in part due to the number of individuals accessing the study survey who did not meet the study's criteria for participation, due to significant amounts of missing data, and those who did not complete the study.

While there was no opportunity to ask participants why they did not complete the measures, there are a number of possible theoretical explanations for why individuals in this study did not complete the survey measures. Instrument length in the current study, specifically the long item length of the first two instruments (the demographic questionnaire and the TGITS), and the number of instruments (six) may have been factors in participants not completing the survey due to respondent fatigue or possibly, time issues. The length of the survey in terms of the time required to complete the measures may have been excessive for some participants. The time to complete the survey was estimated to be between 20-30 minutes, however, it is possible for some participants this amount of time was underestimated.

In a study of participant dropout as a function of survey length in online research, Hoerger (2010) states that participant attrition is important to consider when conducting internet-based research because of the potential for a non-representative final sample. Hoerger found that 10% of participants could be predicted to become early drop outs, while about 2% for every 100 survey items could be predicted to drop out. He suggests that the best method to protect against the effects of participant attrition is to conduct an a priori power analysis, taking into account that about 10% are likely to drop out early on and then systematically as the survey continues. The current study did conduct an a priori

power analysis, however, did not expect, nor plan for the high dropout rate that was observed.

There is a significant amount of literature showing that the transgender population has a higher incidence of anxiety and distress (Bockting et al., 2013; Budge, Adelson & Howard, 2013; Pflum et al., 2015; Reisner et al., 2016). Some of the instruments in the current study assessed mental health variables, which require focus upon, and disclosure of potentially sensitive information. The content of some scale items may have triggered emotional distress in some individuals, contributing to skipping items, not completing one or more of the instruments, or failure to complete the remainder of the survey. Cherry (2017) suggests that selective attrition, or the tendency for some individuals to be more likely to drop out than others, may have an effect on a study's validity. Cherry also suggests that in the research, an attrition bias could result in a final group of participants who differ from the original population sample. Zhou and Fishbach (2016) concur, finding that participant attrition is often systematic, is prevalent in online studies, and false conclusions may be drawn as a result. In the current study, participant attrition was systematic, or non-random, and is likely to have an effect upon the study's conclusions, i.e., findings about depression, anxiety, and substance abuse which did not support the literature, reported and discussed in Chapter 2.

Another possible explanation for participant drop out in this study was related to the length of time that the participant had identified as transgender and how comfortable they were with their identity. Some participants may have avoided survey items that asked direct questions about transgender identity due to discomfort. It is also plausible that some individuals who did not complete the questionnaire were initially interested in

looking at the survey or curious about the study, but did not continue when they saw that it was focused on transgender-identified individuals. Additionally, individuals who did have mental health issues of depression, suicidal ideation, anxiety, and substance use issues may have skipped questionnaire items due to potential stigma associated with mental health and substance use issues.

Contrary to the theoretical explanations about the current study, many of the larger funded studies, specifically those using archival data, did not report having significant participant attrition or missing data or discuss these theoretical explanations. First, it is not possible in anonymous research to ascertain the reasons why participants drop out. Many studies on minority populations or populations difficult to reach have conducted their study utilizing large archival data banks, often from government funded research. Thus, there is typically not a significant amount of participant attrition to weaken validity of the results. For example, the largest study on the transgender population to date, the U.S. Transgender Survey (James et al., 2016) had a total sample of 38,916 participants. Of these, 11,201 cases were removed due to not meeting minimum eligibility criteria for the study or not completing the survey. About 900 respondents were removed for incomplete, duplicate, or illogical responses. The U.S. Transgender Survey had low missing data (between five and six percent) from the final dataset of 27,715 respondents from the original sample. Incomplete responses and missing data were allowed after the completion of the first two sections of demographic questions. Clearly, the U.S. Transgender Survey was far more complex and extensive than the current study, involved a team of researchers, and had deeper resources for recruitment, data collection, and data analysis, which resulted in a study with greater generalizability.

Bockting et al. (2013) conducted a two part study. The first part of the study utilized archival data from the Rosser (2003) health study of N=1,229, then recruited an online convenience sample of 1,093 transgender persons to study the relationship between minority stress (stigma) and mental health (anxiety and depression) and moderating factors, using the Brief Symptom Inventory and the Global Severity Index. They recruited from a large number of transgender community websites, listservs, forums and publications. A cash gift certificate was offered to complete the survey; most participants completed the survey within about one hour. A computer program was developed to screen for those who were ineligible to participate. After exclusion, 79.6% of the original sample of 1,373 remained. The data was analyzed with the Mann-Whitney test, to test for gender differences in stigma experiences, and hierarchical regression to test for relationships between demographics, passing, stigma, minority stress, and outness.

Reisner et al. (2016) utilized archival data from the Growing Up Today prospective, longitudinal study, which consisted of a national cohort of gender minority and non-gender minority young adults from the United States. Of the N=7,831 participants, .33% were gender minority. Minority stress was operationalized with measures of depression and anxiety. There was no non-response/drop out/exclusion statistics for this study sample. Testa et al. (2012) and Goldblum et al., (2012) utilized archival data from a large statewide survey in Virginia to research violence and suicidal ideation and attempts. The original survey for this study, which aimed to identify risk factors for HIV and to identify transgender persons' access to medical and mental health services, had been offered in both English and Spanish, and used both quantitative and

qualitative methods. Pflum et al. (2015) gathered data online as part of the internet-based 115 question Trans Health Survey, recruiting through social media, listservs, and community leaders, achieving an N=865 transgender and gender non-conforming adults from the United States and Canada. The study operationalized minority stress as depression and generalized anxiety and sought to understand relationships between social support, resilience, and minority stress. Based on the review of these larger studies, and compared to the current study which had limited resources compared to the above studies, it is clear that methods of utilizing archival data banks, surveys offered in English and Spanish, incentives, and broad identity inclusion and recruitment methods, yielded results with greater validity and generalization.

In summary, the findings of this study with the exception of the variable of minority stress and suicidal ideation did not achieve replication of expected findings that are prevalent in the literature. The explanations for not finding expected results included small sample size, missing data and dropout, the use of standardized instruments with face validity but not validated for use with the transgender population, and narrower selection criteria in terms of gender identity than more recent studies. Theoretical explanations encompassed characteristics of the sample that may have potentially contributed to missing data or dropout from the study, such as emotional discomfort with the measure items that triggered anxiety and avoidance. The generalizability of findings was limited to the current study sample and to individuals demographically similar to the sample, which can be characterized as a college educated sample, based upon the demographic data. Recommendations for future research and practice follow.

Recommendations for Research

The findings of this study, which replicated and corroborated prior research on the high rate of suicidal ideation among transgender people, illuminate the importance of the relationship between societal stigmatization and suicidal ideation within the transgender population. The literature suggests that studies with larger samples, especially those utilizing archival data banks and broad criteria for inclusion typically include those who identify as gender queer, gender fluid, gender-nonconforming, among other gender self-identities, and yield valid results. The current study recruited a narrower range of the broad transgender and gender non-conforming population, and utilized and internet-based approach without access to a large data bank. It is recommended to follow the methods that are successful by utilizing broad methodology and large data resources to research minority populations such as the transgender population.

It is recommended to recognize the differences in subgroups of the transgender population and begin to conduct research to establish new parameters for these subgroups. Pflum et al. (2015) discuss recent research on the composition of the transgender population, stating its diversity. Hwahng and Nuttbrock (2007) and Beemyn and Rankin (2011) recognize that different subgroups have fundamental differences and experiences of identity development. For example, individuals assigned as male gender at birth that have transitioned to female; those assigned female gender at birth who have transitioned to male; males assigned at birth who are not consistently identifying as female; and females assigned at birth who are not consistently identifying as male are some of the groupings identified in the literature.

While it was beyond the scope of this study, it is critical to develop standardized measures by conducting pilot studies to evaluate instruments for use with the transgender population. Utilizing standardized measures will yield more accurate information about transgender identity and the unique stressors associated with identity, transition, and mental health. Increased understanding of the transgender population will improve relations between healthcare professionals and transgender persons as well as open doors to increased healthcare through the relief of discrimination and negative attitudes by healthcare providers and facilities toward transgender people.

To summarize, it is recommended to obtain access to large databases in order to attain valid, meaningful results and generalizability, utilizing a wide range of recruitment methods. The current study, due to its small sample size, did not have the statistical power to potentially replicate results of the new, large database studies found in the literature. The use of social media is a successful method of obtaining participants and is recommended. More funding for research is needed to promote competent healthcare and to define the needs of the transgender population. The targeting of at-risk groups within the transgender population aimed at the development of strategies to reduce negative health consequences is recommended, for example, transgender youth and groups known to have high transmission rates of HIV and STDs.

Recommendations for Practice

Psychology professionals must continue to become more informed about gender identity issues and risk factors for the transgender population as well as gender identity issues in the general population. Since stigmatization is now a known risk factor for

suicidal behaviors (Testa et al., 2017), healthcare professionals are in a position to intervene and prevent the loss of individual transgender lives.

The healthcare community needs well-developed models of gender identity development and stress, resilience, transitioning, and counseling to meet the standard of care. WPATH publishes updated standards of care to advocate for competent, high quality healthcare for the transgender population. WPATH advocates worldwide adherence to the norms of the standards of care. WPATH Version 7 (2011) calls for the education of healthcare professionals about transgender health, noting a profound lack of training provided by educational institutions for healthcare professionals on transgender care. Wylie et al. (2016) recommend that while most transgender healthcare can be provided by individual practitioners, local healthcare sites develop culturally sensitive norms tailored for the structures of their individual organizations.

The APA (2015) published Guidelines for Psychological Practice with Transgender and Gender Nonconforming People to help practitioners in providing competent care and trans-affirmative practices for trans people. The APA Guidelines concur with the findings of WPATH's Standards of Care that under 30% of psychology practitioners reported being familiar with gender non-conformity issues. The APA guidelines also recommend that trans-affirmative training and practice be followed to support trans identities and experiences. These guidelines were developed with respect to the APA Ethical Principles of Psychologists and Code of Conduct (APA, 2010), and other APA standards held by APA committees and councils on non-discrimination.

Greater access to psychosocial services is important to support the transgender population throughout the lifespan. Children and adolescents who struggle with gender

identity are vulnerable to mental health consequences and negative social consequences such as bullying, social rejection, and family rejection. Understanding the transgender population through sound research that focuses on minority stress and its mental health correlates and adherence to standards of practice will contribute to improved health and social change for transgender people.

Implications for Social Change

This study investigated the relationships between mental health variables and minority stress in an effort to inform health providers and other researchers. As a result of the work of researchers, practitioners, and the transgender community itself, the climate has begun to change dramatically and positively for transgender individuals. Social change is supported by continued involvement in research and by social activism. The National Center for Transgender Equality (James et al., 2016) published their results of a large survey, which described not only the stress and hardships experienced in the areas of discrimination and violence, housing, employment, and family relations, but also improvement in areas of visibility and acceptance. Practice and research in the area of minority stress and mental health with the transgender population will promote social change, contribute to gaps in the literature, provide more accurate population parameters, influence and inform practitioners, and bring the transgender population to greater visibility and understanding, thus promoting change in perceptions and acceptance of transgender people.

The unit of society's stability is the family. Transgender people, similar to the LGB population, often experience profound difficulty with their families of origin and marriage families. According to James et al. (2016), rejection, violence, and

homelessness are common. The researchers reported that rejection by family is associated with homelessness, twice the likelihood of engaging in sex work, and suicide attempts. Rejection by spousal partners, children, and religious organizations contributes to downward mobility and marginalization. However, the climate is rapidly changing as families, religious organizations, and employers become more accepting of those who are transgender and gender non-conforming. Research and theoretical literature stimulate further work in both research and practice, expanding the databases.

One of the aims of this study was to contribute to the database on the transgender population and to contribute to the promotion of social change among healthcare professionals and others who may read the literature. Research provides healthcare professionals with information to help optimize their services, change negative held beliefs, and influence authorities to institute policies of inclusivity and nondiscrimination, thus enacting social change. Furthermore, participation in research engages transgender people toward taking an active role in defining themselves and rejecting negative stereotypes held by stigmatizing individuals and societal institutions that maintain discrimination and oppression of transgender people.

Social support is a potent mediator between minority stress and mental health for transgender people (Pflum et al., 2015). The support of national and local governments, employers, family and friends is a protective factor which has been shown to reduce symptoms of mood disorders and substance abuse for the LGBT population (Hatzenbuehler, McLaughlin, Keyes & Hasin, 2010). The empowerment of the transgender individuals and communities involves social support from family and friends, and transgender-specific community sources such as trans-affirmative psychotherapy,

physical health sources, and peer networks (Pflum et al., 2015). According to Frost and Meyer (2009) community connectedness is critical for the development of gender identity self-acceptance and for coping with discrimination.

The National Center for Transgender Equality (James et al., 2016) survey reported that 76% of their sample was registered to vote, compared with 68% of the general population, and that 54% voted in a mid-term election compared with 48% of the general population. However, according to the authors, the participants reported that fear of being harassed by officials at polling sites and belief that their vote would not make a difference caused many to avoid voting. Participation in civic life is critical for the progression of the transgender movement to achieve goals of equality and full participation in socioeconomic life. Continued work toward the full inclusion of transgender people in the network of socioeconomic life will bring about social change that impacts individual lives, our institutions, and governments. Conducting research that positively engages transgender people with psychology professionals, illuminating the experience of the transgender population relevant to minority stress, and informing professionals, and the public with accurate information benefits the transgender population and promotes social change.

Conclusion

The aim of this study was to investigate the relationship between minority stress and mental health within the transgender population. This study demonstrated a positive relationship between stigmatization and suicidal ideation, corroborating this finding with a large number of previous research studies. Heterosexism and gender identity

discrimination limit the vast spectrum of human growth, development, and well-being of transgender individuals.

The transgender population also includes individuals who identify as gender fluid, gender queer, non-binary, gender nonconforming, and two-spirit, among other self-identities. This diversity calls for social change that recognizes gender identity diversity and dismantles the societal gender binary. Minority stress, demonstrated to be related to negative mental health consequences for the LGB population, may also be related to negative mental health consequences for the transgender population. Continuing and expanding research and practice will contribute to the provision of adequate healthcare for this at-risk population, and promote positive social change for the transgender population.

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Appendix A: Demographic Questionnaire

1. Country of Residence:
   What is your current country of residence?
   There will be a drop-down list of countries in the world.

2. State of Residence:
   In which state do you currently reside?
   There will be a drop-down list of states in the US.

3. Residence: Urban, suburb, or rural
   How would you describe the area in which you live?
   Urban (large or medium size city)
   Suburban (areas just outside a large or medium size city)
   Rural (small town, farm, or country)
4. Age:
   What was your age on your last birthday?
   There will be a drop-down list of ages.

5. Gender Identity:
   a. How would you describe your gender identity (check all that apply)?:
      Male
      Transgender female to male
      Transsexual female to male
      FtM
      Transman
      Female
      Transgender male to female
      Transsexual male to female
      MtF
      Transwoman
      Intersex
      Other (please specify) _____

   b. How long have you been living as a transgender or transsexual person?
      There will be a drop-down list of number of years.

c. Gender Assigned at Birth:
How would you describe your gender as assigned at birth?
Female
Male
Intersex
Other (please specify) _____

6. Sexual Orientation:
How would you describe your sexual orientation (check all that apply)?:
Heterosexual
Bisexual
Lesbian, gay, or homosexual
Other (please specify): _____

7. Race/Ethnicity:
How would you describe yourself in terms of race/ethnicity (check all that apply):
American Indian, Alaska Native, or Native American
Asian or Asian American
Black, African, or African American
Hawaiian Native or other Pacific Islander
Latino/a or Hispanic
White, Caucasian, or European American
Other (please specify)_____

8. Education:
What is your highest level of formal education?
No formal education
Primary/middle school (grades 1-8)
Some high school (grades 9-11, no diploma)
High school (diploma, or GED)
Some college or technical school (no degree)
Associates degree
College/university degree (BA, BS, AB, etc.)
Some graduate or professional school (no degree)
Master's degree MA, MS, MEd, MBA, etc.)
Doctoral degree (PhD, EdD, etc.).
Professional degree (MD, DDS, DMD, DVM, LLB, JD)

9. Employment
   How would you describe your current employment status? (check all that apply)
   - Employed full-time for wages
   - Employed part-time for wages
   - Self-employed (full-time)
   - Self-employed (part-time)
   - Student
   - Homemaker
   - Not employed
   - Retired

10. Current Annual Income
    How would you describe your current annual income?
    There will be a drop-down menu with income ranges.

11. Religious/spiritual preference
    How would you describe your current religious or spiritual preference? (check all that apply)
    - Roman Catholic
    - Protestant Christian
    - Evangelical Christian
    - Eastern Orthodox Christian
    - Jewish
    - Muslim
    - Hindu
    - Buddhist
    - None
    - Atheist
    - Other (please specify) _____

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE

Appendix B: The Lesbian Internalized Homophobia Scale

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

_____ 1. Most of my friends are lesbian.

_____ 2. I try not to give signs that I am a lesbian. I am careful about the way I dress, the jewelry I wear, the places, people and events I talk about.

_____ 3. Just as in other species, female homosexuality is a natural expression of sexuality in human women.

_____ 4. I can't stand lesbians who are too "butch". They make lesbians as a group look bad.

_____ 5. Attending lesbian events and organizations is important to me.

_____ 6. I hate myself for being attracted to other women.

_____ 7. Female homosexuality is a sin.

_____ 8. I am comfortable being an "out" lesbian. I want others to know and see me as a lesbian.

_____ 9. I feel comfortable with the diversity of women who make up the lesbian community.

_____ 10. I have respect and admiration for other lesbians.

_____ 11. I feel isolated and separate from other lesbians.

_____ 12. I wouldn't mind if my boss knew that I was a lesbian.

_____ 13. If some lesbians would change and be more acceptable to the larger society, lesbians as a group would not have to deal with so much negativity and discrimination.

_____ 14. I am proud to be a lesbian.

_____ 15. I am not worried about anyone finding out that I am a lesbian.

_____ 16. When interacting with members of the lesbian community, I often feel different and alone, like I don't fit in.

_____ 17. Female homosexuality is an acceptable lifestyle.

_____ 18. I feel bad for acting on my lesbian desires.

_____ 19. I feel comfortable talking to my heterosexual friends about my everyday home life with my lesbian partner/lover or my everyday activities with my lesbian friends.

_____ 20. Having lesbian friends is important to me.

_____ 21. I am familiar with lesbian books and/or magazines.

_____ 22. Being a part of the lesbian community is important to me.

_____ 23. As a lesbian, I am loveable and deserving of respect.

_____ 24. It is important for me to conceal the fact that I am a lesbian from my family.

_____ 25. I feel comfortable talking about homosexuality in public.

_____ 26. I live in fear that someone will find out I am a lesbian.

_____ 27. If I could change my sexual orientation and become heterosexual, I would.

_____ 28. I do not feel the need to be on guard, lie, or hide my lesbianism to others.

_____ 29. I feel comfortable joining a lesbian social group, lesbian sports team, or lesbian organization.

_____ 30. When speaking of my lesbian lover/partner to a straight person I change pronouns so that others will think I'm involved with a man rather than a woman.

_____ 31. Being a lesbian makes my futures look bleak and hopeless.

_____ 32. Children should be taught that being gay is a normal and healthy way for people to be.

_____ 33. My feelings toward other lesbians are often negative.

_____ 34. If my peers knew of my lesbianism, I am afraid that many would not want to be friends with me.

_____ 35. I feel comfortable being a lesbian.

_____ 36. Social situations with other lesbians make me feel uncomfortable.

_____ 37. I wish some lesbians wouldn't "flaunt" their lesbianism. They only do it for shock value and it doesn't accomplish anything positive.

_____ 38. I don't feel disappointment in myself for being a lesbian.

_____ 39. I am familiar with lesbian movies and/or music.

_____ 40. I am aware of the history concerning the development of lesbian communities and/or the lesbian/gay rights movement.

_____ 41. I act as if my lesbian lovers are merely friends.

_____ 42. Lesbian lifestyles are a viable and legitimate choice for women.

_____ 43. I feel comfortable discussing my lesbianism with my family.

_____ 44. I don't like to be seen in public with lesbians who look "too butch" or are "too out" because others will then think I am a lesbian.

_____ 45. I could not confront a straight friend or acquaintance if they made a homophobic or heterosexist statement to me.

_____ 46. I am familiar with lesbian music festivals and conferences.

_____ 47. When I speak of my lesbian lover/partner to a straight person, I often use neutral pronouns so the sex of the person is vague.

_____ 48. Lesbian couples should be allowed to adopt children the same as straight couples

_____ 49. Lesbians are too aggressive.

_____ 50. I frequently make negative comments about other lesbians.

_____ 51. Growing up in a lesbian family is detrimental for children.

_____ 52. I am familiar with community resources for lesbians (i.e., bookstores, support groups, bars, etc.).

Appendix C: The Transgender Internalized Transphobia Scale (TGITS)

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

_____ 1. Most of my friends are transgender people.

_____ 2. I try not to give signs that I am a transgender person. I am careful about the way I dress, the jewelry and makeup I wear, the places, people and events I talk about.

_____ 3. Transgenderism is a natural expression of human gender identity diversity.

_____ 4. I can't stand transgender people who are too "obvious". They make transgender people as a group look bad.

_____ 5. Attending trans events and organizations is important to me.

_____ 6. I hate myself for being attracted to other women/men.

_____ 7. I believe being transgender is a sin.

_____ 8. I am comfortable being an "out" transgender person. I want others to know and see me as transgender person.

_____ 9. I feel comfortable with the diversity of transgender people who make up the transgender community.

_____ 10. I have respect and admiration for other transgender people.

_____ 11. I feel isolated and separate from other transgender people.

_____ 12. I wouldn't mind if my boss knew that I was a transgender person.

_____ 13. If some transgender people would change and be more acceptable to the larger society, transgender people as a group would not have to deal with so much negativity and discrimination.

_____ 14. I am proud to be a transgender person.

_____ 15. I am not worried about anyone find out that I am a transgender person.

_____ 16. When interacting with members of the transgender community, I often feel different and alone, like I don't fit in.

_____ 17. Living as a transgender person is an acceptable lifestyle.

_____ 18. I feel bad for acting on my desire to live as a transgender person.

_____ 19. I feel comfortable talking to my non-transgender friends about my everyday home life with my partner/lover or my everyday activities with my transgender friends.

_____ 20. Having transgender friends is important to me.

_____ 21. I am familiar with transgender books and/or magazines.

_____ 22. Being a part of the transgender community is important to me.

_____ 23. As a transgender person, I am loveable and deserving of respect.

_____ 24. It is important for me to conceal the fact that I am a transgender person from my family.

_____ 25. I feel comfortable talking about transness in public.

_____ 26. I live in fear that someone will find out I am a transgender person.

_____ 27. If I could change my gender identity and become non-transgender, I would.

_____ 28. I do not feel the need to be on guard, lie, or hide my transgender identity to others.

_____ 29. I feel comfortable joining a transgender social group, or transgender organization.

_____ 30. When speaking of my lover/partner to a non-transgender person I change pronouns so that others will not know the gender of my lover/partner.

_____ 31. Being a transgender person makes my future look bleak and hopeless.

_____ 32. Children should be taught that being transgender is a normal and healthy way for people to be.

_____ 33. My feelings toward other transgender people are often negative.

_____ 34. If my peers knew I am a transgender person, I am afraid that many would not want to be friends with me.

_____ 35. I feel comfortable being a transgender person.

_____ 36. Social situations with other transgender people make me feel uncomfortable.

_____ 37. I wish some transgender people wouldn't "flaunt" their transness. They only do it for shock value and it doesn't accomplish anything positive.

_____ 38. I don't feel disappointment in myself for being a transgender person.

_____ 39. I am familiar with transgender movies and/or magazines.

_____ 40. I am aware of the history concerning the development of transgender communities and/or the transgender rights movement.

_____ 41. I act as if my lovers are merely friends.

_____ 42. Transgender lifestyles are viable and legitimate lifestyles.

_____ 43. I feel comfortable discussing my transness with my family.

_____ 44. I don't like to be seen in public with transgender people who look too "trans" or are "too out" because others will then think I am a transgender person.

_____ 45. I could not confront a non-transgender friend or acquaintance if they made a transphobic statement to me.

_____ 46. I am familiar with transgender events and conferences.

_____ 47. When speaking of my lover/partner to a non-transgender person, I often use neutral pronouns so the sex of the person is vague.

_____ 48. Transgender people should be allowed to adopt children the same as non-transgender people.

_____ 49. Transgender people are too aggressive.

_____ 50. I frequently make negative comments about other transgender people.

_____ 51. Growing up in a family with a transgender parent(s) is detrimental for children.

_____ 52. I am familiar with community resources for transgender people (i.e., community centers, bookstores, support groups, bars, etc.).

Appendix D: The Stigmatization Scale

This scale measures the feelings you have toward mainstream society. For each of the items below, read the statement then place the number in the blank space beside each item that **best** describes the extent to which you AGREE or DISAGREE with the statement.

Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1	**2**	**3**	**4**	**5**

____ 1. I feel like society holds a negative attitude towards me.

____ 2. I feel "at home" in society.

____ 3. Society treats me according to a stereotype.

____ 4. Members of mainstream society want to be my friend.

____ 5. I feel as though mainstream society views me as having a shortcoming.

____ 6. Society's negative attitudes towards me has lowered my pride.

____ 7. I feel as though society sees me as something less than a human being.

____ 8. I feel like I am treated differently during social interactions with members of mainstream society.

____ 9. I do not feel victimized by society.

____ 10. I feel like society views me as an inferior being.

____ 11. I feel like I am consistently judged based upon things other than my abilities or personality by society.

____ 12. Society's negative attitudes have disrupted my relationship with my family.

____ 13. I feel like I have to work harder than members of mainstream society in order to overcome society's prejudice towards me.

____ 14. I am generally treated as an object, rather than as a person.

____ 15. Members of mainstream society seem to trust me.

____ 16. Members of mainstream society are afraid of me.

____ 17. I feel like I am not deprived of opportunities that are generally available to the mainstream.

____ 18. The negative attitudes that society has towards me has caused me to believe that those negative attitudes are justified.

____ 19. Society discriminates against me.

____ 20. Members of mainstream society don't think I am a capable person.

____ 21. I'm viewed negatively by mainstream society.

Appendix E: Prejudice Events Questionnaire (Discrimination/Violence/Verbal Abuse)

1. In the past year, have you been discriminated against in any way because of your gender identity?

Yes_____ No _____

2. In the past year, have you been physically attacked because of your gender identity?

Yes_____ No _____

3. In the past year, have you been verbally harassed or verbally abused because of your gender identity?

Yes_____ No _____

Note: This measure, consisting of three questions, was developed based on similar methodology of Ilan Meyer (1995). See supporting explanation for this method on pages 136-137.

Appendix F: The Goldberg Depression Scale

The items below refer to how you have felt and behaved **during the past week**. For each numbered item, indicate the extent to which it is true by circling one of the numbers that follows it. Use the following scale:

0 = Not at all
1 = Just a little
2 = Somewhat
3 = Moderately
4 = Quite a lot
5 = Very much

1.	I do things slowly.	0	1	2	3	4	5
2.	My future seems hopeless.	0	1	2	3	4	5
3.	It is hard for me to concentrate on reading.	0	1	2	3	4	5
4.	The pleasure and joy has gone out of my life.	0	1	2	3	4	5
5.	I have difficulty making decisions.	0	1	2	3	4	5
6.	I have lost interest in aspects of life that used to be important to me.	0	1	2	3	4	5
7.	I feel sad, blue, and unhappy.	0	1	2	3	4	5
8.	I am agitated and keep moving around.	0	1	2	3	4	5
9.	I feel fatigued.	0	1	2	3	4	5
10.	It takes great effort for me to do simple things.	0	1	2	3	4	5
11.	I feel that I am a guilty person who deserves to be punished.	0	1	2	3	4	5
12.	I feel like a failure.	0	1	2	3	4	5
13.	I feel lifeless—more dead than alive.	0	1	2	3	4	5
14.	My sleep has been disturbed: Too little, too much, or broken sleep.	0	1	2	3	4	5
15.	I spend time thinking about HOW I might kill myself.	0	1	2	3	4	5
16.	I feel trapped or caught.	0	1	2	3	4	5
17.	I feel depressed even when good things happen to me.	0	1	2	3	4	5
18.	Without trying to diet, I have lost, or gained, weight.	0	1	2	3	4	5

Appendix G: The SBQ-R Suicide Behaviors Questionnaire (Revised)

Instructions: Please check the number beside the statement or phrase that best applies to you.

1. **Have you ever thought about or attempted to kill yourself?** (check one only)

- ☐ 1. Never
- ☐ 2. It was just a brief passing thought
- ☐ 3a. I have had a plan at least once to kill myself but did not try to do it
- ☐ 3b. I have had a plan at least once to kill myself and really wanted to die
- ☐ 4a. I have attempted to kill myself, but did not want to die
- ☐ 4b. I have attempted to kill myself, and really hoped to die

2. **How often have you thought about killing yourself in the past year?** (check one only)

- ☐ 1. Never
- ☐ 2. Rarely (1 time)
- ☐ 3. Sometimes (2 times)
- ☐ 4. Often (3-4 times)
- ☐ 5. Very often (5 or more times)

3. Have you ever told someone that you were going to commit suicide, or that you might do it? (check one only)

- ☐ 1. No
- ☐ 2a. Yes, at one time, but did not really want to die
- ☐ 2b. Yes, at one time, and really wanted to die

☐ 3a. Yes, more than once, but did not want to do it

☐ 3b. Yes, more than once, and really wanted to do it

4. How likely is it that you will attempt suicide someday? (check one only)

☐ 0. Never

☐ 1. No chance at all

☐ 2 Rather unlikely

☐ 3. Unlikely

☐ 4. Likely

☐ 5. Rather likely

☐ 6. Very likely

Appendix H: The Zung Self-Rating Anxiety Scale

The statements below refer to how you have felt and behaved **during the past week**. For each numbered item, indicate the extent to which it is true by circling one of the numbers that follows. Use the following scale:

1 = None or a little of the time
2 = Some of the time
3 = Good part of the time
4 = Most or all of the time

1.	I feel more nervous and anxious than usual.	1	2	3	4
2.	I feel afraid for no reason at all.	1	2	3	4
3.	I get upset easily or feel panicky.	1	2	3	4
4.	I feel like I'm falling apart and going to pieces.	1	2	3	4
5.	I feel that everything is all right and nothing bad will happen.	1	2	3	4
6.	My arms and legs shake and tremble.	1	2	3	4
7.	I am bothered by headaches, neck and back pains.	1	2	3	4
8.	I feel weak and get tired easily.	1	2	3	4
9.	I feel calm and can sit still easily.	1	2	3	4
10.	I can feel my heart beating fast.	1	2	3	4
11.	I am bothered by dizzy spells.	1	2	3	4
12.	I have fainting spells or feel like it.	1	2	3	4
13.	I can breathe in and out easily.	1	2	3	4
14.	I get feelings of numbness and tingling in my fingers, toes.	1	2	3	4
15.	I am bothered by stomachaches or indigestion.	1	2	3	4
16.	I have to empty my bladder often.	1	2	3	4
17.	My hands are usually dry and warm.	1	2	3	4
18.	My face gets hot and blushes	1	2	3	4
19.	I fall asleep easily and get a good night's rest.	1	2	3	4
20.	I have nightmares.	1	2	3	4

Appendix I: The Drug Abuse Screening Test

Completing this Psychological Screening Test

To take the questionnaire, please click the radio button next to the selection which best reflects how each statement applies to you. The questions refer to the past 12 months. Carefully read each statement and decide whether your answer is yes or no. Please give the best answer or the answer that is right most of the time.

For the purposes of this screening test, drug abuse refers to:

1. The use of prescribed or "over the counter" drugs in excess of the directions, and
2. Any non-medical use of drugs

Remember, for the purposes of this screening test, the questions do **not** refer to alcoholic beverages. The DAST does not include alcohol use. Separate tests called CAGE and MAST focus on alcohol use.

Take the Quiz

Please note: This test will only be scored correctly only if you answer each one of the questions.

Please check the one response to each item that best describes how you have felt over the past 12 months.

1. Have you used drugs other than those required for medical reasons?

   Yes

   No

2. Have you abused prescription drugs?

   Yes

   No

3. Do you abuse more than one drug at a time?

   Yes

   No

4. Can you get through the week without using drugs?

Yes

No

5. Are you always able to stop using drugs when you want to?

Yes

No

6. Have you had “blackouts” or “flashbacks” as a result of drug use?

Yes

No

7. Do you ever feel bad or guilty about your drug use?

Yes

No

8. Does your spouse (or parents) ever complain about your involvement with drugs?

Yes

No

9. Has drug abuse created problems between you and your partner or your parents?

Yes

No

10. Have you lost friends because of your use of drugs?

Yes

No

11. Have you neglected your family because of your use of drugs?

Yes

No

12. Have you been in trouble at work because of your use of drugs?

Yes

No

13. Have you lost a job because of drug abuse?

Yes

No

14. Have you gotten into fights when under the influence of drugs?

Yes

No

15. Have you engaged in illegal activities in order to obtain drugs?

Yes

No

16. Have you been arrested for possession of illegal drugs?

Yes

No

17. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?

Yes

No

18. Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding, etc.)?

Yes

No

19. Have you gone to anyone for help for a drug problem?

Yes

No

20. Have you been involved in a treatment program especially related to drug use?

Yes

No

Appendix J: The Alcohol Use Disorder Identification Test

Please **circle** the answer that is correct for you

1. How often do you have a drink containing alcohol?
   - Never
   - Monthly or less
   - 3-4 times a month
   - 2-3 times a week
   - 4 or more times a week

2. How many standard drinks containing alcohol do you have on a typical day when drinking?
   - 1 or 2
   - 3 or 4
   - 5 or 6
   - 7 to 9
   - 10 or more

3. How often do you have six or more drinks on one occasion?
   - Never
   - Less than monthly
   - Monthly
   - Weekly
   - Daily or almost daily

4. During the past year, how often have you found that you were not able to stop drinking once you had started?
   - Never
   - Less than monthly
   - Monthly
   - Weekly
   - Daily or almost daily

5. During the past year, how often have you failed to do what was normally expected of you because of drinking?
   - Never
   - Less than monthly
   - Monthly
   - Weekly
   - Daily or almost daily

6. During the past year, how often have you needed a drink in the morning to get yourself going after a heavy drinking session?
   - Never
   - Less than monthly
   - Monthly
   - Weekly
   - Daily or almost daily

7. During the past year, how often have you had a feeling of guilt or remorse after drinking?
   - Never
   - Less than monthly
   - Monthly
   - Weekly
   - Daily or almost daily

8. During the past year, have you been unable to remember what happened the night before because you had been drinking?
   - Never
   - Less than monthly
   - Monthly
   - Weekly
   - Daily or almost daily

9. Have you or someone else been injured as a result of your drinking?
   - No
   - Yes, but not in the past year
   - Yes, during the past year

10. Has a relative or friend, doctor or other health worker been concerned about your drinking or suggested you cut down?
   - No
   - Yes, but not in the past year
   - Yes, during the past year