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The Psychological And Physical Well-Being Of Transgender People

Charlene Johnson
Indiana State University

THE PSYCHOLOGICAL AND PHYSICAL WELL-BEING OF TRANSGENDER PEOPLE

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Charlene Johnson

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COMMITTEE MEMBERS

Research Chair: Veanne Anderson, Ph.D.

Professor of Psychology

Indiana State University

Clinical Chair: Jennifer Schriver, Ph.D.

Professor of Psychology

Indiana State University

Committee Member: Kevin Jordan, Ph.D.

Assistant Professor of Psychology

Indiana State University

ABSTRACT

The purpose of the study was to examine components of support that may predict better mental health outcomes for transgender people. Gender is typically associated with natal sex. When a person's gender identity does not match their assigned sex at birth, living their life and feeling accepted by society can be challenging. Previous research suggested that support across a variety of settings such as in the home, interpersonal relationships, work, and academic settings are predictive of better overall life outcomes and when this support is lacking, psychological distress such as depression, anxiety, shame, guilt, low self-esteem, and suicidal ideation may negatively impact the individual. Although lack of support may negatively impact the day-to-day lives of transgender people, daily challenges associated with their gender identity, such as having to conceal their gender identity, may also create a layer of stress that can make the individual feel stigmatized. Participants who identified as transgender, were over 18-years old, and spoke English were recruited through snowball sampling. The criterion variables were the participant's psychological health as measured by scores on the Generalized Anxiety Disorder-7, Patient Health Questionnaire-9, and the Satisfaction with Life Scale. The predictor variables were scores on the Gender Minority Stress and Resilience Measure subscales, the Intimacy subscale on the Transgender Positive Identity Measure, the Family of Origin subscales on the Daily Heterosexist Experience Questionnaire, the Identity Concealment Measure, and the Relationship Function Inventory. It was hypothesized that greater reported levels of support in an individual's home life, interpersonal relationships and friendships, work environments, and academic settings would predict higher levels of psychological well-being and life satisfaction. Furthermore, greater perceived levels of support from family members would be associated with lower psychological distress even when lower perceived support is reported from interpersonal

relationships and friendships, work environments, and academic settings. Additionally, we predicted that higher levels of minority stress and stigma and a greater desire to conceal one's gender identity would be associated with more psychological distress and lower levels of life satisfaction. Greater family support significantly predicted less anxiety and less depression. The perception of a strong support system significantly predicted greater life satisfaction. Greater levels of internalized transphobia and negative expectations predicted lower life satisfaction with internalized transphobia being the strongest predictor. Exploratory analysis suggested that people who used gender marker changes reported significantly more life satisfaction than those who did not. People who underwent surgery reported significantly less anxiety and more life satisfaction than people who did not complete a surgical procedure. There were significant differences between people who used gender marker changes, received hormone treatment and elected to have surgery and those who did not. Those who utilized these gender affirming behaviors reported greater levels of gender affirmation. People who elected to utilize hormones also reported significantly more intimacy with their partner than those who did not take hormones. Results are discussed in terms of how the study findings can increase the understanding of clinicians as they assist individuals through the transition process by improving family support with psychoeducation, reducing barriers to care, and reducing isolation in higher education.

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TABLE OF CONTENTS

LIST OF TABLES

THE PSYCHOLOGICAL AND PHYSICAL WELL-BEING OF TRASNGENDER PEOPLE

Overview

The purpose of this study is to explore factors that predict overall feelings of psychological well-being in transgender people. In a society where gender is typically associated with our natal sex, individuals whose gender identity contradicts this pattern may face challenges as they endeavor to simply live their lives. Individuals that have a gender expression that differs from their natal sex may be referred to as gender variant or transgender (Tishelman et al., 2015), considered to have an atypical gender presentation (D'Augelli et al., 2006), or may also be referred to as gender nonconforming (Carmel & Erickson-Schroth, 2016; Kane, 2006; Testa et al., 2015; van Beusekom et al., 2015) or gender diverse (dickey & Singh, 2017). For the purposes of this research, the term transgender will be utilized to describe those whose gender identity is different from their natal sex. Therefore, transgender women are people who were born male, but their gender expression and identity are feminine. Transgender men are people who were born female, but their gender expression and identity are masculine. According to a literature review conducted by Gregor et al. (2016), the societal need to consider gender as binary is primarily a Western cultural construct (dickey et al., 2016). Overall, society has used gender to organize people as we come in contact with them allowing us to perceive any differences between the people that we are interacting with and ourselves (Simpkins, 2014). The term transgender may have many different meanings for a variety of people and has been described as an umbrella term associated with diverse ways of expressing one's gender (Giammattei, 2015). However, it is important to understand that even though this term is widely used, once an individual has completed a physical transition, they may once again revert to the usage of male or female to

describe their gender expression (Lev 2004; Sevelius, 2013).

Research indicates that supportive factors within a variety of settings such as home, interpersonal relationships, work, and academic settings, are predictive of better overall life outcomes (American Psychological Association, 2015; Capous-Desyllas & Barron, 2017; Olson et al., 2015; Ruggs et al., 2015; Ryan et al., 2010; Schimmel-Bristow et al., 2018; Sherer, 2016) and that lack of support can negatively impact transgender individuals (Graham, 2014). Lack of support can lead to mental health issues such as depression, anxiety and low self-esteem (Carmel & Erickson-Schroth, 2016; Diamond, 2003; Glynn et al., 2016; Hatzenbuehler, 2009; Jaagi et al., 2018; Mizock & Mueser, 2014; Timmins et al., 2017), decreased academic achievement (Graham, 2014), increased feelings of shame, fear, and isolation (Graham, 2014), suicidal ideation (Mizock & Mueser, 2014; Moody et al., 2015; Tebbe & Moradi, 2016; Testa et al., 2017) and discrimination associated with trans prejudice (Meyer, 2003; Mizock & Mueser, 2014; Ruggs et al., 2015; Timmins et al., 2017). Previous studies have explored how the role of gender affirmation (Glynn et al., 2016; Rood et al., 2017; Seibel et al., 2018) and gender minority stress (Breslow et al., 2015; Hendricks & Testa, 2012; Jaagi et al., 2018; Tebbe & Moradi, 2016; Testa et al., 2017; Timmins et al., 2017) affected outcomes of overall well-being. Gender affirmation refers to the open acceptance that a person feels when expressing their gender identity in interpersonal interactions.

This study will examine how levels of support in the home, interpersonal relationships, work, and academic settings are associated with overall well-being in order to determine if one of these sources of support might provide greater protective factors than the others against negative life outcomes such as depressed mood, anxiety, and low life satisfaction. A further goal of this study is to determine the role that levels of minority stress and stigma can have on an

individual's perception of well-being and their mental health.

Sources of Support

A wide variety of studies have examined several sources of support to determine the influence they might have on the psychological and physical health outcomes of transgender individuals (Capous-Desyllas & Barron, 2017; Olson et al., 2015; Ruggs et al., 2015; Ryan et al., 2010; Schimmel-Bristow et al., 2018; Sherer, 2016). Although various studies have examined areas of support individually, it is unclear at this time as to whether any research has compared these sources of support to determine if one may be more predictive of overall life satisfaction and provide a protective influence over negative psychological health outcomes. Many results indicate that social support is associated with less depression, anxiety, suicidal ideation, and low self-esteem. Less is known about which type of support (family support, peer relationships, co-worker relationships, romantic relationships) best predicts psychological health.

Parental Support

Within the field of psychology, a variety of theories support the belief that family of origin and childhood experiences play an integral role in our overall development and may be predictive of how we interact with others and manage life stressors. Attachment theory, as proposed by John Bowlby and further defined by Mary Ainsworth (Bowlby, 1988, pp. 1-19; Holmes, 1993; Mooney, 2010, pp.25-40), has been utilized to elucidate the connection between these early life experiences and interpersonal relationships (Babcock et al., 2000). Further studies have supported the importance of attachment between caregivers and their children as a strategy to enhance the individual's self-image, reduce and manage distress, and inform clinicians working with individuals in a mental health setting (Barber et al., 2006; Bucci et al., 2015; MacBeth et al., 2011). This research suggests that a supportive home environment may be one

factor that predicts psychological well-being in transgender people.

Research examining parental acceptance of their transgender children suggests that nonconformity with one's gender is more acceptable, and often times encouraged, for girls as opposed to boys. Kane (2006) conducted qualitative interviews and discovered that many parents of daughters seemed to encourage them to strive for future stereotypically masculine occupations and to compete in athletic endeavors. On the other hand, parents of boys were more hesitant to actively support their son's interest in stereotypically feminine endeavors such as playing with Barbie dolls, wearing pink clothes, or painting their finger nails, and behaviors/ attributes such as crying or passivity. Kane (2006) reported that although parents might respond in a positive manner to some gender nonconformity during preschool years, this acceptance tended to diminish as female children reached adolescence and boys were leaving the pre-school years. For boys in particular, when parents responded positively to activities that were gender nonconforming these responses were usually coupled with some negative qualifier. For example, a parent might accept that a boy might want to participate in a stereotypically feminine activity, but some stated that they would make sure that they compensated for this stereotypically feminine activity with several stereotypically masculine activities as well (Kane, 2006).

van Beusekom et al. (2015) examined how the acceptance of parents can play a protective role in the mental health of their transgender children. Children who are transgender may face more adversity at school, and therefore support at home may provide a sense of security and safety that might help buffer the effects of stress at school (Giammattei, 2015; Simons et al., 2013; Toomey et al., 2010). van Beusekom et al. (2015) discovered that girls whose gender was nonconforming, and had higher levels of acceptance from their parents, reported lower levels of psychological distress. However, for boys whose gender was

nonconforming, acceptance by their fathers played a more protective factor against psychological distress than acceptance by their mothers. The importance of family support extends beyond simply having a safe haven to withdraw to when the individual is feeling victimized. According to attachment theory, it affords the individual a safe base from which to explore the world and feel reasonably certain that their home is a place of acceptance where a positive sense of self and identity can develop (Bowlby, 1988). For the transgender individual, greater levels of support from a parent may be related to greater levels of self-esteem and actually assist the individual in developing their gender identity (Ryan et al., 2010; Seibel et al., 2018).

Academic Support

Depending on how old the person is when they begin to explore their gender identity, support that was originally provided by their family may begin to shift toward their peers, teachers and administrators, and work colleagues. For many transgender individuals who begin to explore their gender identity at an early age, for example in childhood or adolescence, this first social interaction may occur in an academic setting. Although research supports the importance of parental support as a protective factor against negative mental health issues (Simons et al., 2013), parental advocacy for their transgender children and adolescents helps to reduce maltreatment in academic environments (Capous-Desyllas & Barron, 2017). Parents must not only educate themselves about gender, gender identity, and the laws associated with a transgender identity, but they often must educate schools and organizations that their child or adolescent is associated with in order to protect and support their child (Capous-Desyllas & Barron, 2017). The lack of parental support for their transgender or gender nonconforming child may arise out of fear of their child's future sexual orientation (D'Augelli et al., 2006), fear of safety for their child (Capous-Desyllas & Barron, 2017), or concern for the development of

mental health problems associated with a transgender identity such as depression, anxiety, suicidal ideation, and low self-esteem (Siebel et al., 2018; Simons et al., 2013; Toomey et al., 2010; van Beusekom et al., 2015).

Challenges for transgender individuals may differ across the life-span, but the overall experience may be very similar. Studies have found that the more atypical the gender presentation of the individual, the greater the victimization and maltreatment the individual may face from their peers and others in the community (D'Augelli et al., 2006). However, Schimmel-Bristow et al. (2018) reported that friendship and peer support were protective factors against maltreatment for their participants, aged 14 to 22 years old. Gender expression that is different from the traditional binary expression of male or female is much more acceptable when females present in an atypical manner compared to their male counterparts (D'Augelli et al., 2006; Kane, 2006). Males presenting in a gender atypical manner tend to experience more victimization in school and this maltreatment leads to deleterious psychosocial outcomes, higher levels of depression, and lower levels of life satisfaction (Toomey et al., 2010; Young & Sweeting, 2004). Shiffman et al. (2016) reported that individuals diagnosed with gender dysphoria when compared to non-gender dysphoric people were found to experience greater gender or sexual bullying, more opposite-sex friends, and they tended to report greater behavioral and emotional problems.

One of the gravest concerns for the individual that identifies as transgender is how people will respond to them when they divulge their transgender status (Grossman & D'Augelli, 2006). Responses to this disclosure may include physical violence, sexual abuse, verbal harassment, or discrimination. This maltreatment can originate within the family of origin, but is also commonly evidenced in interactions with peers, teachers and society at large (Firth, 2014). Firth (2014) conducted an audit of data collected on individuals seeking treatment for gender reassignment

and discovered that more than 30% of the clients had been treated or were currently being treated for depression, anxiety, suicidality, and self-harm. Furthermore, over 28% had experienced emotional or physical abuse, 64% of female to male and 42% of male to female transgender people had been victimized in their academic setting and 56% had been exposed to some sort of family dysfunction (e.g. parental disharmony, separation/divorce, emotional abuse, neglect, punitive fathers). Grossman and D'Augelli (2006) noted that constant rejection, lack of caring, and lack of compassionate environment, home, school, and local communities, reportedly provoked transgender youth (ages 15-21) to feel as though they were unworthy of love and support as well as feelings of shame associated with their gender expression and gender identity. Social isolation, psychological distress, and problems with peer relationships may be especially evident for males with an atypical gender presentation (de Vries et al., 2016; Young & Sweeting, 2004). According to Graham (2014), Black transgender women reported that a lack of support and feeling unsafe at school were catalysts that caused them to drop out of school which ultimately affected their future ability to become gainfully employed. These participants found themselves more vulnerable to an encounter with the criminal justice system and some were forced into prostitution to simply survive.

As noted previously, for the child and adolescent, parental support in academic settings helps to reduce victimization and maltreatment of the transgender student (Capous-Desyllas & Barron, 2017). However, as the transgender student progresses into institutions of higher learning the onus falls on the student to advocate for his or her self. Challenges for the transgender student living away from home may include housing and bathrooms that are segregated by gender, medical and mental health services that are unable to provide adequate support for the transgender individual's physical and mental health, as well as documentation

that may not allow the individual's gender to be properly represented (Case et al., 2012). Furthermore, research suggests that transgender college students experience discrimination and harassment at much higher rates than do their cisgender counterparts (Pryor et al., 2016). Case et al. (2012) conducted a case study that examined the efforts of faculty members and a student working together to effect change in order to increase "transgender inclusion" on college campuses. According to Case et al. (2012), the nondiscrimination policy of the university did not include any protective language for the transgender student. The protections were directed toward gender conforming individuals only. Although the faculty and students in the Case et al. (2012) study were able to advocate for the change to the nondiscrimination policy and garnered support among the various university bodies, it was ultimately denied. These authors noted that the use of inclusive language that is supportive of the transgender population can be an extensive process and one that should include education concerning proper terminology and obligations associated with the best practice and protections for the transgender population.

In May 2016, a joint memorandum was issued by the United States Office of Civil Rights and the Department of Education elucidating the obligations that schools have with regard to transgender students (Brauer, 2017). This memorandum stated that regardless of identification and educational documents, schools must respect the student's requested gender identity even if it contradicts the student's documented sex. Even with this memorandum, investigations continue to examine incidents of transgender students being placed with students whose gender identity runs contrary to the transgender student, usage of an incorrect name on school documents and social invitations associated with school events (Brauer, 2017), as well as incorrect usage of a student's requested gender pronouns (Parks & Straka, 2018). According to Brauer (2017), these missteps effectively "out" the transgender student and many of these

missteps have been associated with data management and system designs. Brauer (2017) proffers an example of how simply sharing awards and good news with a student's local hometown newspaper may effectively out them with their hometown community if they started their transition while at college. These information systems that manage student data may be one of the first ways of supporting and affirming an individual's gender identity when they arrive on campus (Parks & Straka, 2018).

Housing on college campuses is meant to foster a safe and comfortable environment for students to live in, but for the transgender student this housing space may turn into an unsafe and hostile place if they have a roommate that is not supportive of them and is unfriendly (Pryor et al., 2016). According to Pryor et al. (2016), many campus housing directors elect to place the transgender student alone in a room that may be costlier than if they had a roommate to help offset the expense and segregates the student from others in their housing unit. Transgender students in the Pryor et al. (2016) study reported greater adverse outcomes even when they had roommates primarily because their roommates avoided interacting with them once they learned of the students' gender identity. Transgender students in this study also expressed concern for their safety when using bathroom facilities. Several reported the need to wake up much earlier in the morning to avoid running into anyone in the showers. These types of experiences may put transgender people at greater risk for increased mental health issues, substance abuse issues, and suicidal ideation (Moody et al., 2015; Tebbe & Moradi, 2016; Tupler et al., 2017).

Social and Interpersonal Relationships

For the individual that transitions in adulthood, the challenges and complications increase. In some cases, the individual may or may not be in a committed relationship, have children, or be gainfully employed. These interpersonal relationships with a significant other or

children may add a layer of distress that can be particularly challenging for transgender individuals and their partners. Malpas (2006) reported that historically it was assumed that when individuals began to realize a need to transition, in order to better align their gender identity with how they view themselves, the interpersonal relationship they were involved in would come to an end. However, studies have discovered that many couples choose to work through the challenges facing them and remain together (Malpas, 2006; Meier et al., 2013).

According to Giammattei (2015), for transgender individuals in a committed relationship, the decision regarding the timing of their gender identity transition may need to be negotiated between both partners prior to the transition because it will affect both people in the relationship. For example, before the person begins their gender identity transition, the individual may be in an interpersonal relationship that may be classified as a cisgender heterosexual couple or a gay or lesbian couple. When this transition takes place, the identity of the couple may shift forcing the non-transitioning partner to deal with a possible change to the way that society views their sexual orientation and they may not be prepared to manage or cope with this change to their relationship (Giammattei, 2015; Malpas, 2006). This places an additional layer of stress on the couple beyond the layer of stress associated with transitioning. Giammattei (2015) suggested that although the transgender partner may wish to move quickly into the process of transitioning, moving slower would allow the cisgender partner to successfully work through changes to the relationship.

Maintaining social support in romantic relationships has been discovered to reduce depressive symptoms compared to individuals who are single at the time of transition (Meier et al., 2013). However, when these relationships experience financial hardships associated with the cost of transitioning, issues of discrimination associated with the coming out process, or stigma associated with the transgender relationship, there may be a greater risk of increased depressive

symptomology for the transgender individual (Gamarel et al., 2014).

Studies have suggested that microaggressions within romantic relationships can be particularly hurtful with the transgender partner feeling demeaned and dejected primarily because of the significance of the intimate relationship (Farrow et al., 2017). Farrow et al. (2017) discovered four basic themes associated with these microaggressions. The themes included minimization of the transgender partner's identity (e.g "Implying that since I am a trans guy I couldn't possibly be interested in non-masculine activities."), expected behaviors based on gender (e.g. "But if you're a MAN you should be able to do it."), interacting differently with the transgender partner when out in public as opposed to in a private setting (e.g. "She misgenders me when introducing me to other people, using she and girlfriend."), and finally, the direction of the relationship (e.g. "He acted cold and distant toward me insisting he'd never date one of those 'trannies' and that I was ok because it didn't count.") These authors noted that many of these microaggressions were associated with the cisgender partner's rigid beliefs regarding the gender binary. Overall, studies have proposed that transgender individuals who are married or are in an intimate interpersonal relationship at the time of transition tend to face issues similar to the coming out processes that are associated with being a sexual minority, and that maintaining supportive relationships is one of the best ways to protect against a decline in mental health (Giammattei, 2015; Malpas, 2006).

Workplace Support

In addition to family and interpersonal relationships, workplace relationships, both social and professional, can contribute to individual well-being. Colbert et al. (2016) examined connections between job functions and "employee flourishing." They considered flourishing to be associated with job satisfaction, positive emotions, meaningful work, and life satisfaction.

They discovered that these co-worker relationships play an important role in overall well-being. When the environment at work is positive it can foster the development of supportive friendships and encourage personal growth. Additionally, these authors discovered that task assistance, career advancement, and emotional support contributed to and were correlated with "employee flourishing." Colbert et al. (2016) discovered that friendship at work promotes positive emotions and happiness, and that this is an essential element of well-being for the employee.

Workplace relationships may be more challenging for transgender individuals with greater obstacles associated with not only their professional duties, but also their personal interactions in the workplace (Pepper & Lorah, 2008). According to Pepper and Lorah (2008), individuals in pre-transition must live their day-to-day lives for one year in their chosen gender identity as a prerequisite for surgical transition. If the individual is employed, this can create complications at their place of employment as co-workers, customers, and superiors are aware of this public transition. If the person chooses to leave their employment to transition they lose seniority, income, and loss of benefits; however, with a new employer the individual may not have to worry about being remembered by their former gender or have to deal with the occasional incorrect pronoun or reference to their previous name. Pepper and Lorah (2008) proposed challenges associated with seeking new employment. Work history is directly linked to an individual by their name. When a transgender individual changes their name, at the time of transition, they risk losing valuable work experience or risk disclosing personal private information associated with transition. This simple name change may create an internal struggle associated with self-esteem issues and possible ethical dilemmas at the time of applying for a new job.

For some transitioning individuals, the purpose for changing employment may simply be

to avoid sharing information associated with the transitioning process. However, when the person decides to make the transition and they change their name, many applications ask for previous names that applicants have been employed under. This forces the applicant to face the dilemma of sharing information related to the transition process they are undergoing or risk being dishonest on the application. Pepper and Lorah (2008) also pointed out that by staying with the current employer, the individual protects their financial interests, salary, benefits, and remains in a familiar work environment. By staying in a familiar work environment, there is less stress associated with learning a new job and meeting new co-workers at a time when there are already several significant changes in their lives taking place.

Issues of discrimination and prejudice may be particularly salient for the employed transgender woman. According to Pepper and Lorah (2008), transgender women no longer have the benefit of male privilege and may find it more difficult to attain employment at the same level of expertise they had as a man even though they are qualified. Transgender men in a previous study experienced the opposite effect in the workplace by gaining newfound male privilege (Schilt, 2006). Acceptance of the transgender individual may be closely associated with appearance (Schilt & Connell, 2007). For instance, cisgender men in general tended to accept the transgender man and include him in their masculine heterosexual clique based on his physical appearance (Schilt & Westbrook, 2009).

With regard to workplace support and discrimination, when the policies of the employee's organization encourage equality regarding gender identity and co-workers are supportive toward transgender employees, the transgender participants perceived and reported lower levels of discrimination (Ruggs et al., 2015). The most salient factor these authors reported was the reaction of co-workers (e.g. invited to socialize outside of work, coworkers are very

friendly, and coworkers ask about personal life). Ruggs et al. (2015) posited that these supportive reactions may have suggested to the transgender employee that discrimination wouldn't be tolerated in the workplace environment lending a sense of security and safety to the work atmosphere.

Mizock and Mueser (2014) examined employment, mental health, and stigma and discovered that the employed transgender participants, when compared to unemployed transgender participants, reported higher levels of internalized transphobia, or prejudice against transgender people, and fear of disclosing if they had a mental health issue. These findings suggest that transgender people who are employed have more people around them, e.g., co-workers, employers, and customers, who may engage in negative comments or behaviors regarding their gender identity. In contrast, unemployed transgender people may be exposed to fewer people who can comment on their gender identity.

Additionally, these authors reported that lower levels of internalized and externalized transphobia and mental health stigma were associated with the usage of a larger number of coping strategies, and these coping strategies were more effective in reducing the probability of external stigma becoming internalized, which in turn might decrease the risk of poor mental health. Examples of coping strategies that were found to be effective include utilizing self-affirming thoughts (e.g., It's not my problem if someone doesn't like who I am… It's their problem.), advocating for themselves, and utilizing spiritual and religious ideology. This suggests that the stress of maintaining privacy in the workplace may require coping techniques to manage fears and worries associated with gender identity, mental health issues, or both.

Minority Stress Theory and Stigma

In addition to support or lack thereof, from family, peers, school, and work, transgender

people may face challenges that create stress, which in turn can affect psychological well-being. In general, stress may be defined as physical or psychological strain or pressure (Stress, n.d.) and research has examined the role of stressful situations on an individual's mental health (Dohrenwend, 2000). There are a variety of stressful external life events, such as loss of a job or relationship due to gender identity transition as well as internal stressors such as fear of rejection, hiding one's gender and/or sexual identities, shame and guilt associated with past trauma or life choices, or fear of victimization. These types of events place different levels of stress on an individual (Meyer, 2003). Meyer (2003) stated that these stressors force the individual to adjust to "new situations or life circumstances" (p. 675). He further reported that psychological distress may also be associated with not only these types of personal events, but also the circumstances associated with a person's social environment (e.g. racism, prejudice, discrimination). This distress has been described as social stress, and Meyer (2003) noted that this social stress may be particularly salient for members of stigmatized groups (e.g., diverse racial, ethnic, cultural, low socioeconomic status, gender, and/or sexuality).

Meyer (2003) reported that minority status is a stressor that is specific to the individual members of a particular minority group, is long-standing, and is rooted in societal and social institutions and their functioning. These stressors can negatively impact mental health and overall well-being (Gamarel et al., 2014; Hatzenbuehler, 2009; Jäggi et al., 2018; Meyer, 2003; Rieger & Savin-Williams, 2012; Timmins et al., 2017) as well as stigmatize the individual (Hatzenbuehler, 2009; Mizock & Mueser, 2014; Pachankis, 2007; Timmins et al., 2017). Meyer (2003) described minority stress as being on a continuum beginning with distal stress, which includes events or conditions that are not reliant on a person's awareness or comprehension of an event or condition and how they might need to respond to this event or condition (e.g. rejection,

discrimination, and prejudice). Proximal stress refers to how an individual interprets and internalizes the event or condition, which is primarily in a negative fashion. For example, transgender individuals may expect to be rejected by society if society was aware of their gender identity. As a result, they may then protect and hide their nonconforming gender identity for fear of maltreatment or victimization, and this might then lead to proximal stress, internalized stigma or transphobia.

A variety of studies have specifically examined the role that gender, gender identity, and presenting as a chosen gender may play regarding levels of minority stress (Riggle & Mohr, 2015; Rood et al., 2017; Testa et al., 2015). Testa et al. (2015) developed the Gender Minority Stress and Resilience Measure in order to better understand the day-to-day experiences of transgender and gender nonconforming individuals. These authors discovered one item that was endorsed by nearly all of the individuals participating in the study, "I have heard negative statements about transgender or gender nonconforming people." Although this item was not included in the measure because of the uniformity in affirmative responding, it shows the extent to which the daily lived experiences of transgender and gender nonconforming individuals consist of incidents reflecting minority-related stressors.

Rood et al. (2017) examined transgender adults to better understand how concealing one's gender identity might be associated with levels of minority stress. Participants in this study reported that identity concealment would at times create a fear that they would be discovered as inauthentic and they wanted their efforts to present as their preferred gender would to be legitimized. Additionally, identity concealment was reported to be exhausting and one individual felt as though they were playing some game to conceal their gender identity. Concealment of gender identity might entail concealing a person's birth assigned gender or concealing preferred

gender depending on how well they could pass or blend in with the preferred gender identity.

The stress of concealing one's gender identity, either the birth assigned gender or the preferred gender, has been compared to both visible and invisible stigma (Pachankis, 2007). Studies have suggested that transgender individuals are confronted by a wide variety of visible differences that can be stigmatizing (Hill & Willoughby, 2005; Mizock & Mueser, 2014), and individuals that are transgender are often avoided socially. In turn, this avoidance may maintain negative thoughts, feelings, stereotypes, and prejudice about the person who identifies as being transgender, thus creating further stigmatization as proposed by Allport's contact theory (Allport, 1954, pp. 261-281). Allport's theory suggests that when people interact with individuals from stigmatized groups people gain a better understanding of them and form attitudes and opinions that are less prejudicial and stigmatizing.

According to Pachankis (2007), concealing a stigma can be difficult if the stigma is noticeable, is likely to be discovered, and if the cost to conceal the stigma is steep should the stigma be discovered. He proposed a "Cognitive-Affective-Behavioral Model" to explain how concealing a stigma may affect the psychological well-being of those working to conceal them. Pachankis (2007) discovered that there is a difference in consequences associated with a stigma that can be concealed and a stigma that is visible. Individuals who are working to conceal their stigma are much more vigilant and preoccupied with concealment of the stigma and focus on directing their attention to possible indicators that those around them will discover the stigma. For the transgender individual, the stigma may be associated with the tenor of their voice, how tall they are, how they carry their body, whether their body conforms to how society traditionally think of their gender identity, whether they have a noticeable Adam's apple, how their fingernails are manicured, and a variety of additional attributes. Individuals who must work to

conceal any inconsistencies with how the world sees them may struggle with a variety of feelings such as shame, fear, anxiety, depression, guilt, substance abuse issues, and suicidal ideation and attempts (Carmel & Erikson-Schroth, 2016; Gamarel et al., 2014; Glynn et al., 2016; Hatzenbuehler, 2009; Hendricks & Testa, 2012; Jäggi et al., 2018; Mizock & Mueser, 2014; Moody et al., 2015; Nam et al., 2017; Olson et al., 2015; Pachankis, 2007; Tebbe & Moradi, 2016; Testa et al., 2017; Timmins et al., 2017; Toomey et al., 2010; Tupler et al., 2017).

Mizock and Mueser (2014) reported that stigma toward transgender individuals creates barriers in a variety of different environments along with mental health issues such as depression, anxiety and suicidal ideation. Additionally, the probability of being a member of more than one marginalized group is high for many individuals that identify as transgender (e.g. race/ethnicity, sexual orientation, mental illness). This has been referred to as "double stigma" or "double dose stigma" (Mizock & Mueser, 2014; Timmins et al., 2017). For people struggling with mental health issues, strategies to cope with these issues may be employed. Mizock and Mueser (2014) suggested that coping strategies may be more beneficial when they include additional strategies that may be more specific to transgender individuals; these strategies included gender-normative coping, anticipatory stigma, and disclosure strategies that may be used across a variety of domains. Gender-normative coping is the process of reacting to stressful events by employing stereotypical emotion focused responses as their preferred gender identity to cope with the transphobia. By utilizing this type of strategy, the individual is acting in an authentic manner and affirming his or her gender identity even if the social situation does not necessarily support his or her preferred gender identity. Anticipatory stigma refers to anticipating and preparing for transphobic behavior, discrimination, and prejudice. Individuals utilizing this strategy actively choose to avoid environments that might be conducive to unaccepting negative

behaviors directed toward the transgender individual. Disclosure strategies are the conscious decisions as to when and where a transgender individual might divulge their transgender identity. These coping strategies allow the individual to be mindful of their safety and allow them to pick the proper place, time, and people with whom they can share their information. Although these types of strategies to deal with stigma, associated with day-to-day lived experiences of transgender people, may be recommended coping strategies that assist the transgender person in managing stress, according to Timmins et al. (2017) these strategies may lead to ruminative thoughts which in turn may create psychological distress.

Psychological Distress

Lack of support, stress, and stigma are challenging for people, and when grouped together these factors increase the probability that the individual will experience some level of psychological distress. In addition, lack of support, stress, and stigma may be exacerbated by a person's race/ethnicity, socioeconomic status, sexual orientation, or religious affiliation. For the transgender and gender nonconforming individual, lack of support, minority stress, and stigma have been associated with greater psychological distress (Carmel & Erickson-Schroth, 2016; Elder, 2016; Gamarel et al., 2014; Glynn et al., 2016; Hatzenbuehler, 2009; Hendricks & Testa, 2012; Jäggi et al., 2018; Mizock & Mueser, 2014; Moody et al., 2015; Nam et al., 2017; Olson et al., 2015; Pachankis, 2007; Tebbe & Moradi, 2016; Testa et al., 2017; Timmins et al., 2017; Toomey et al., 2010; Tupler et al., 2017).

According to the literature, transgender or gender nonconforming people suffer higher levels of psychological distress than their gender conforming counterparts (Carmel & Erickson-Schroth, 2016). Carmel and Erickson-Schroth (2016) reported that transgender people also experience greater levels of victimization, harassment, violence, and discrimination which can

lead to considerably higher rates of depression, substance abuse, suicidal ideation, and suicidal attempts. Prevalence rates indicate that a mental health diagnosis associated with depressive symptoms (e.g. major depressive disorder, persistent depressive disorder, bipolar disorder) for the transgender population is between 50-67% (Carmel & Erickson-Schroth, 2016). As noted previously, minority stressors may be numerous for the transgender and gender nonconforming individual placing a greater burden on them to manage these stressors in a healthy manner. The statistics for those diagnosed with a depressive disorder in the transgender population mentioned by Carmel and Erickson-Schroth (2016) are notably higher than that of the population in the United States which has a reported prevalence rate overall of 7% (American Psychiatric Association [APA], 2013, pp. 160-168).

Prevalence rates for substance abuse in the United States range from 4.6% to 16.2% depending on the demographics of the individual (APA, 2013). For the transgender and gender nonconforming individual, substance abuse rates have been reported as high as 48% (Hendricks & Testa, 2012). Substance abuse and mental health issues are commonly found to be comorbid (APA, 2013, pp. 490-497) and, considering the high levels of minority stress and incidence of stigma reported in the transgender population, it should not be surprising that these percentages are relatively high. Regarding suicidal ideation (SI) or attempts (SA), Hendricks and Testa (2012) reported rates for the transgender and gender nonconforming individual as high as 38% for SI and 16% for SA. They further went on to report that in the United States general population SI and SA rates range from 1-6%.

Research has explored the effects of minority stress and stigma on the mental health of transgender women and their cisgender male partners. Gamarel et al. (2014) examined 191 couples, transgender women and their cisgender male partners. These authors proposed that

relationship stigma may place a heavier cognitive load on the couple and they may feel more self-conscious, have self-doubt about their relationships, and may feel the need to conceal the relationship from family and friends. According to these authors, gender minority stressors would impact not only the transgender woman, but also her cisgender male partner. Gamarel et al. (2014) also explored the relationship between discrimination associated with the transgender identity of the women, relationship stigma associated with the couple, and financial challenges and hardships on the couple's mental health and the effect this had on the quality of the relationship. As expected, results indicated clinically significant symptoms of depression in both individuals as well as perceived poor relationship status. Depressive symptoms were reported in 42.9% of the transwomen in this study and 47.6% of their male partners. The implications of this study suggest that when working with transgender individuals and their partners, it may be beneficial to consider how transphobia and gender minority stressors not only affect the well-being of the transgender client, but also the effects they may be having on their partner as well.

Research has examined possible underlying causes of the development of substance abuse, including "social causation processes" (Dohrenwend, 2000). Social causation theory posits that some phenomena may be explained through social causes (Almquist et al., 2016); for example, substance abuse may be rooted in a connection between financial hardship and the development of mental health disorders (Dohrenwend, 2000). Comorbidity between substance abuse and mental health issues, such as depression and anxiety, is not uncommon (APA, 2013). The path that a transgender individual must take to achieve congruency between the way they view their gender identity and the way that the world views them can be an expensive endeavor and is one layer of stress that they must often manage on their own, which in turn may lead to depression and anxiety as well as substance abuse.

Tupler et al. (2017) examined negative alcohol-related consequences and motivations in a sample of transgender college students. These authors discovered that when compared to their freshman cisgender counterparts the transgender students consumed larger quantities of alcohol to the point of blacking out and suffered more negative consequences associated with this consumption. These transgender college students reported motivations that included positive reasons for drinking such as spending time with friends and to celebrate, but they also included negative reasons such as for stress reduction, to reduce inhibitions and be comfortable in pursuing or approaching someone for sex, to feel more attractive, to feel happy, to improve their self-esteem, and to manage social anxiety. These types of motivations may be a day-to-day reality for many students, but for transgender people the stressors of transitioning may be particularly distressing leading to increased substance abuse to reduce the distress, even outside of the college setting. The connection between substance abuse and suicidality has been reported in a variety of studies to negatively impact the well-being of transgender individuals (Clements-Nolle et al., 2006; Hendricks & Testa, 2012; Moody et al., 2015; Tebbe & Moradi, 2016; Tupler et al., 2017). Clements-Nolle et al. (2006) discovered that transgender participants reporting depressive symptoms, substance abuse issues, and having a trauma history associated with forced sexual encounters were significantly more likely to have attempted suicide.

Overall, the literature supports the association between gender minority status and psychological distress as well as increased risk for substance abuse, suicidal ideation and suicide attempts for the transgender individual (Carmel & Erickson-Schroth, 2016; Diamond, 2003; Glynn et al., 2016; Graham, 2014; Hatzenbuehler, 2009; Jaagi et al., 2018; Mizock & Mueser, 2014; Moody et al., 2015; Tebbe & Moradi, 2016, Testa et al., 2017; Timmins et al., 2017). Protective factors such as having supportive family and friends, acceptance and comfort with

their gender identity, coping and problem solving skills, hope of transitioning, and religious or spiritual reasons have been found to decrease psychological distress in a variety of settings including home, social, work environments, and institutional settings (Capous-Desyllas & Barron, 2017; Olson et al., 2015; Ruggs et al., 2015; Ryan et al., 2010; Schimmel-Bristow et al., 2018; Sherer, 2016).

Pilot Study

The preceding discussion of the research findings on the psychological well-being of transgender and gender non-conforming individuals provides an important framework for the current study. However, in order to better understand the lived experiences of transgender people, interviews with three transgender individuals were conducted to explore the challenges and triumphs they had experienced on their gender journey. The purpose of this pilot study was to gather information regarding challenges faced by transgender individuals that would inform the present study. The three individuals were in different phases of life. One transgender female was married when she began transitioning and she has two children. A transgender man had completed one semester of college. The third person was a transgender female and she began her transition after she had completed college and graduate school and was in the workforce.

All three of these individuals expressed awareness that they were somehow different from others as they were growing. One individual mentioned that she was aware that she was not a boy when she was 4-5 years old. She said that typical male behaviors did not feel comfortable and when allowed to choose her own clothing she gravitated toward girl's clothing, but was redirected toward the boy's section. Growing up she stated that she didn't have the knowledge of what being transgender meant and did not gain this knowledge until the end of high school or beginning of college; this experience was common among the three individuals. One of the

individuals stated that locking away the knowledge that their gender may not conform to the sex they were assigned at birth was how they managed to get through their life. For yet another individual, the realization that their gender identity did not align with their natal sex was not something they were consciously aware of until they were misgendered in public. For example, an individual misgenders when they use the wrong pronouns while interacting with a trans person, such as using feminine pronouns when the trans person prefers masculine or gender neutral pronouns.

Psychological distress was associated with all three of the gender journey stories as was prejudice and discrimination. For one of the individuals "the main focus was just trying not to kill myself." All three people expressed loss of relationships and varying degrees of support from their families. Support in the workforce varied between all three of the individuals. One of the people stated that when they came out to their employer things seemed fine, but after a few months they were fired and told, "Your lifestyle doesn't match up with what we're trying to portray here." Another person stated that they felt supported in their transition in the workplace. They stated that the biggest challenge was not with their employer and coworkers, but the vendors that they had to deal with on a day-to-day basis. The final person said that they did so much "intentional suppressing" that their mental health suffered and this ultimately affected their job. "I was like 'nope, go away go away'" when the thoughts related to gender assailed them.

Each of these individuals expressed challenges and barriers they faced as they moved through the transition process. One individual was attacked with mace while using a public bathroom. Another person stated that they don't pass or blend well with their gender identity and they probably never will. However, at their place of employment the bathrooms are co-ed and so using the bathroom for them in the workplace is not an issue. Each person faced a myriad of red

tape when working through the legal system to change their names and other gender markers. Challenges were also expressed regarding the various documents from mental health practitioners that are needed to make legal changes, to begin hormonal therapy, and to be considered for surgical procedures. “Just having to have the exact wording that everyone wants. There’s just a lot of hoops.” Each of these individuals expressed that after coming out to friends and family they felt much less psychological distress. Not all people, as noted above, were accepting and affirming of their gender identity, but the weight of hiding some secret was no longer a stressor they were living with on a day-to-day basis. The information gleaned from these interviews further emphasizes the need for additional research on factors associated with the psychological well-being of transgender individuals which is the focus of the present study.

Present Study

Previous studies have indicated that greater perceived support from family, friends and peers, intimate partners, and co-workers may be related to better psychological well-being and overall greater life satisfaction. A primary purpose of the current study was to examine whether support from family, friends, intimate partners, as well as from academic and work settings, contributes to the psychological health of transgender individuals. The results of the current study may provide useful information to mental health professionals on how best to support their transgender and gender nonconforming clients. This study specifically examined whether social support from family, friendships, work, and academic settings are associated with psychological health in transgender individuals. Additionally, we will examine the associations between minority stress, stigma, concealment of one’s gender identity, psychological well-being, and overall life satisfaction. Therefore, it is hypothesized that:

1. Greater reported levels of support in a transgender individual's home life (e.g., family), friendships, work environments, and academic settings will predict higher levels of psychological well-being and life satisfaction in transgender people.
2. Greater perceived levels of support from family members will be associated with lower reported psychological distress and more life satisfaction even when lower perceived support is reported from friendships, work environments, and academic settings.
3. Higher levels of minority stress and stigma and a greater desire to conceal one's gender identity will be associated with more psychological distress and lower levels of life satisfaction.
4. Finally, depending on sample characteristics and size, we will explore whether membership in marginalized groups (e.g., racial and sexual minorities, and gender identity, e.g., trans men versus trans women) affects levels of psychological distress and life satisfaction.

Method

Design

The present study used a correlational design to examine data collected through self-report questionnaires distributed in an online format. We evaluated the associations among various types of social support, gender minority stress, stigma, and psychological well-being. The criterion variables for the regression analyses were the participant's psychological health as measured by scores on the Generalized Anxiety Disorder-7 (GAD-7; Spitzer et al., 2006), scores on the Patient Health Questionnaire -9 (PHQ-9; Kroenke et al., 2001), and scores on the Satisfaction with Life Scale (Deiner et al., 1985). The predictor variables were scores on the Gender Minority Stress and Resilience Measure subscales (Testa et al., 2015), the Intimacy

subscale on the Transgender Positive Identity Measure (Riggle & Mohr, 2015), the Family of Origin subscales on the Daily Heterosexist Experience Questionnaire (Balsam et al., 2013), the Identity Concealment Measure (Rood et al., 2017), and the Relationship Function Inventory (Colbert et al., 2016).

Power Analysis

An a priori power analysis was conducted to determine the sample size necessary for the present study. Previous research exploring the effects of support in a person's home life, social life, work environment, and institutional settings has effect sizes from small to large. In particular, in an individual's home life, parental support has been reported to have medium to large effect sizes on the individual's self-esteem (e.g., Seibel et al. 2018). Additionally, between boys and girls diagnosed with gender dysphoria, boys reported more problems with peer relationships than did the girls, and this finding had a small to moderate effect size (de Vries et al., 2016). These poor relationships were robust predictors of emotional and behavioral problems. Furthermore, individuals with gender dysphoria reported more incidents of bullying with effect sizes from small to medium (Shiffman et al., 2016). Finally, medium to large effects have been discovered between symptoms of depression and gender minority stress (Jaagi et al., 2018). Based on these effect sizes, a moderate effect size will be assumed. Power analyses indicated that the required sample size of the current study should be approximately 84 participants in order to detect a medium effect size with an α of .05 (Cohen, 1992). The current sample comprised 99 participants with usable data, which exceeded the minimum sample size sought of 84 participants.

Participants

Participants included transgender individuals over 18 years of age and who spoke English, and were recruited via snowball sampling. The survey link was shared with medical clinics and legal services that serve transgender communities. Additionally, the survey was shared with faculty in gender and LGBTQ+ studies programs at universities around the country to help reach a diverse group of participants. Finally, the survey link was posted on social media sites that reach or target members of the LGBT communities and their allies**.** Participants were encouraged to share the link with others they thought might be interested in the study.

A total of 172 people responded to the survey. Data of some participants were deleted for the following reasons: no data at all, e.g., did not respond further than the informed consent (n = 4); under 18 years old (n = 6); no information on gender identity (n = 5); gender assigned at birth matched current gender identity (n = 5); wrong answer on validity question (n = 1); and excessive missing data (n = 52). The final sample included 99 participants with usable data. The average age of the participants was 26.0 years old (SD = 6.8). Participants' ages ranged from 18 to 49 years old. Participants in this group identified themselves as 87.9% White/Caucasian, 1% Black/African American, 2% Hispanic/Latino(a), 4% Asian/Asian American, and 5.1% multiracial. The final sample reported relationship status as 12.1% married, 9.1% engaged, 13.1% living together but not married, 19.2% dating someone, 1% separated, 9.1% polyamorous, 26.3% single but interested in dating someone, and 10.1% single but not interested in dating someone. As for sexual orientation, 9.1% identified as heterosexual, 8.1% identified as lesbian, 11.1% identified as gay, 37.4% identified as bisexual, 6.1% identified asexual, and 28.3% identified as other than listed. Regarding education, 11.1% of people reported having earned a graduate degree, 4% had completed some graduate studies, 24.2% had a college diploma, 42.4%

had some college, 14.1% had a high school diploma, and 4% had less than a high school diploma. Finally, regarding income level, 55.6% reported an income below $25,000, 31.3% between $25,001 and $50,000, 7.1% between $50,001 and $75,000, 5.1% between $75,001 and $100,000, and 1% above $100,001.

Of the 81 participants assigned female at birth, 23 identified as male, 34 as trans men, 12 as non-binary, 1 as gender queer, and 11 as other (e.g., transmasculine, genderfluid, non-binary trans man, transmasculine/non-binary, and gender nihilist/transmasculine). Of the 18 assigned male at birth, 3 identified as female, 13 as trans women, 1 as non-binary, and 1 as other (trans and non-binary). Regarding steps that the participants have taken to affirm their chosen gender identity, 97% of participants reported presenting as their preferred gender through their wardrobe, hairstyle, etcetera, 75.8% have utilized hormones, 63.6% of these participants had completed a legal name change, 48.5% had their gender markers changed, and 45.5% have had some form of surgery.

Measures

Demographic Questionnaire

This questionnaire gathered specific data on the following factors: age, education level, relationship status, ethnicity, gender assigned at birth and current gender identity, sexual orientation, income levels, preferred pronouns, and steps taken to affirm their gender identity. Refer to Appendix A for the full list of demographic items.

The Gender Minority Stress and Resilience Measure

This 58-item scale was developed by Testa et al. (2015) to assist researchers and clinicians in gaining a better understanding of the lived experience and the correlation between gender minority stress and resilience factors in a transgender and gender nonconforming

population. The data gathered for the development of this measure were collected as a portion of the Trans Health Survey. A total of 1414 participants completed this survey. Individuals were recruited on listservs for local and national transgender and gender nonconforming individuals. Additionally, social media sites were contacted as were leaders associated with the transgender and gender nonconforming communities.

This measure includes nine subscales. The first three subscales assess Gender-Related Discrimination (5 items), Gender-Related Rejection (6 items), and Gender-Related Victimization (6 items). Sample items included *"I have had difficulty getting medical or mental health treatment (transition-related or other) because of my gender identity or expression"* (Gender-Related Discrimination), *"I have been rejected or distanced from my family because of my gender identity or expression"* (Gender-Related Rejection), and *"I have been verbally harassed or teased because of my gender identity or expression. (For example being called "it")*" (Gender-Related Victimization). Responses to the Gender-Related Discrimination, Gender-Related Rejection, and Gender-Related Victimization subscales are as follows: *Never*; *Yes, before age 18*; *Yes, after age 18*; and *Yes, in the past year*. Participants were able to select all responses that apply to each of the statements. Responses of *Never* were scored as 0 and all other responses were scored as 1. Total scores ranged from 0 to 5 for the Discrimination subscale and 0 to 6 for the Rejection and Victimization subscales with higher scores indicating more experience with discrimination, rejection, and victimization. The alpha coefficients from the Testa et al. (2015) study were as follows: .61 for Gender-Related Discrimination, .71 for Gender-Related Rejection, and .77 for Gender-Related Victimization. Cronbach's alphas for the current study revealed good internal consistency: Gender-Related Discrimination $\alpha = .90$, Gender-Related Rejection $\alpha = .81$, and Gender-Related Victimization $\alpha = .94$.

The remaining six subscales assessed Non-Affirmation of Gender Identity (6 items), Internalized Transphobia (8 items), Pride (8 items), Community Connectedness (5 items), Negative Expectations for the Future (9 items), and Nondisclosure (5 items). Sample items included *"I have to repeatedly explain my gender identity to people or correct the pronouns they use"* (Non-Affirmation of Gender Identity); *"I resent my gender identity or expression"* (Internalized Transphobia); "*My gender identity or expression makes me feel special and unique"* (Pride); *"I feel part of a community of people who share my gender identity"* (Community Connectedness); *"If I express my gender identity/history others wouldn't accept me"* (Negative Expectations for the Future); and "*Because I don't want others to know my gender identity/history, I change the way I walk, gesture, sit, or stand"* (Nondisclosure). Responses were scored on a 5-point Likert scale, where 1 = *Strongly Agree*, 2 = *Disagree*, 3 = *Neutral*, 4 = *Agree*, and 5 = *Strongly Agree.* Total scores ranged from 5 to 45 depending on the subscale, with higher scores indicating more non-affirmation of gender identity, more internalized transphobia, more negative expectations for the future, and a strong desire to conceal their current gender identity or their prior gender. Additionally, greater levels of pride, community connectedness, and social support were indicated by higher scores on the corresponding scales. The alpha coefficients from the Testa et al. (2015) study were as follows: .93 for Non-Affirmation of Gender Identity, .91 for Internalized Transphobia, .90 for Pride, .89 for Negative Expectation for the Future, .80 for Nondisclosure, and .90 for Community Connectedness. Cronbach's alphas for the current study revealed good internal consistency: Non-Affirmation of Gender Identity $\alpha = .92$, Internalized Transphobia $\alpha = .89$, Pride $\alpha = .86$, Community Connectedness $\alpha = .83$, Negative Expectations for the Future $\alpha = .88$, and Nondisclosures $\alpha = .86$. A full list of the items is in Appendices B, C, and D.

The Daily Heterosexist Experiences Questionnaire

This is a 50-item scale broken down into nine subscales created to assess minority stress in lesbian, gay, bisexual, and transgender adults (Balsam et al., 2013). Participants (*N* = 1217) were recruited from snowball and targeted sampling via the internet. For the purpose of the current study only the Family of Origin Scale, consisting of six items, was utilized. A sample item on the Family of Origin subscale included *"Being rejected by your father for being transgender*." This scale was scored on a 6-point scale of severity as follows: 0 = *Did not happen to me*; 1 = *It happened, and it bothered me NOT AT ALL*; 2 = *It happened, and it bothered me A LITTLE BIT*; 3 = *It happened, and it bothered me MODERATELY*; 4 = *It happened, and it bothered me QUITE A BIT*; and 5 = *It happened, and it bothered me EXTREMELY*. Participants were asked to use these responses to assess how distressed or bothered they were over the last year by each of the presented statements. Scores ranged from 0 to 30 and scores were reversed such that higher scores indicated more family support. The alpha coefficient for the Family of Origin subscale was .79 (Balsam et al., 2013). The Cronbach's α for the current study for the Family of Origin subscale revealed good internal consistency, α = .76. A full list of items may be viewed in Appendix E.

Transgender Positive Identity Measure

This is a 24-item scale developed by Riggle and Mohr (2015) in order to gain a better understanding of the lived experiences of transgender individuals and the impact it has on their overall well-being. They recruited participants through announcements posted on e-mail listservs and websites that target the LGBT population and communities. A total of 138 transgender individuals participated in this survey. This measure is composed of five subscales: Authenticity, Intimacy, Community, Social Justice, and Insights. For the purposes of this study,

only the 5-item Intimacy subscale was used. Also, the acronym of *LGBT* was replaced with *gender identity*. A sample item is *"My gender identity allows me to feel free to explore different experiences of physical intimacy with a partner."* Responses were scored on a 7-point Likert scale where 1 = *Strongly Disagree*; 2 = *Somewhat Disagree*; 3 = *Disagree*; 4 = *Neutral*; 5 = *Agree*; 6 = *Somewhat Agree*; and 7 = *Strongly Agree*. Scores ranged from 5 to 35 with higher scores indicating a more positive view of their intimate partner relationships. The alpha coefficient from the Riggle and Mohr (2015) study for the Intimacy scale was .92. The Cronbach's α for the current study revealed good internal consistency, α = .91. A full list of the items may be viewed in Appendix F.

Identity Concealment Measure

This is a 29-item scale created from a qualitative study conducted by Rood et al. (2017) in order to better understand the effect that concealing one's gender identity, passing, and blending have on transgender people. Rood et al. recruited participants via social media, message boards, and listservs. A total of 30 transgender people participated in this qualitative study via a Skype interview. A sample item is "*Passing is incredibly important and it is a privilege that not everyone has."* This scale is scored on a 5-point Likert scale where 1 = *None of the time*; 2 = *A little of the time*; 3 = *Some of the time*; 4 = *Most of the time*; and 5 = *All of the time*. Scores range from 29 to 145 with higher scores indicating a greater desire to conceal one's gender identity. The Cronbach's α for the current study revealed good internal consistency, α = .90. A full list of the items may be viewed in Appendix G.

Relationship Function Inventory

This is a 24-item scale adapted from a qualitative and quantitative study conducted by Colbert et al. (2016) to assess the role that positive relationships in the workplace have on

employee well-being. Colbert et al.'s (2016) measure has 18 items and six subscales: Giving to Others (α = .88), Friendship (α = .86), Career Advance (α = .87), Emotional Support (α = .86), Personal Growth (α = .84), and Task Assistance (α = .82). Eight items were selected for the current study based on their factor loadings on the Friendship, Emotional Support, and Personal Growth subscales. These eight items were duplicated to also assess support from peers and from teachers. Items were worded in the present tense for participants who indicated they were currently employed and/or attending school, and in the past tense for participants who indicated they were not currently employed and/or attending school but have been in the past. Sample items include *"My coworkers [teachers, peers] help [helped] me cope with stress"* and *"My coworkers [teachers, peers] push [pushed] me to become a better person."* This scale was scored on a 7-point Likert scale where 1 = *Strongly Disagree*; 2 = *Disagree;* 3 = *Slightly Disagree*; 4 = *Neither Agree or Disagree*; 5 = *Slightly Agree*; 6 = *Agree*; and 7 = *Strongly Agree*. Scores range from 8 to 56 for each subscale with higher scores indicating greater perceived social support from co-workers, peers, and teachers. Cronbach's alphas for the current study revealed good internal consistency, coworker support α = .94, peer support α = .97, and teacher support α = .91, A full list of the items may be viewed in Appendix H.

Satisfaction with Life Scale

This is a 5-item scale developed by Deiner et al. (1985) to measure an individual's satisfaction with their life. Participants were 339 undergraduate students and 53 elderly people. A sample item is *"In most ways my life is close to my ideal."* This scale was scored on a 7-point Likert scale where 1 = *Strongly Disagree*; 2 = *Disagree*; 3 =*Slightly Disagree*; 4 = *Neither Agree or Disagree*; 5 = *Slightly Agree*; 6 = *Agree*; and 7 = *Strongly Agree*. Scores range from 5 to 35 with higher scores indicating greater life satisfaction. The alpha coefficient from the Deiner

et al. (1985) study was .87. The Cronbach's α for the current study revealed good internal consistency, α = .90. A full list of the items may be viewed in Appendix I.

Generalized Anxiety Disorder-7 (GAD-7)

This 7-item measure was developed by Spitzer et al. (2006) to assess anxiety. Adult patients (*N* = 2740) completed a 4-page study questionnaire that included items being tested for inclusion in the GAD. In addition, 965 patients were interviewed via telephone over a one-week period. An example item is "*Feeling nervous, anxious or on edge.*" Responses were scored on a 4-point scale with 0 = *Not at all;* 1 = *Several days;* 2 = *More than half the days;* and 3 = *Nearly every day.* Total scores range from 0 to 21 with higher scores indicating more anxiety. The alpha coefficient from Spitzer et al. (2006) was .92. The Cronbach's alpha for the current study revealed good internal consistency, α = .92. For a full list of items see Appendix J.

Patient Health Questionnaire-9 (PHQ-9)

Kroenke et al. (2001) developed this 9-item measure of depressive symptoms in a sample of 6,000 patients across primary care and obstetrics-gynecology clinics. A sample item is "*Feeling down, depressed, or hopeless*." Responses were scored on a 4-point scale with 0 = *Not at all;* 1 = *Several days;* 2 = *More than half the days;* and 3 = *Nearly every day.* Total scores can range from 0 to 27 with higher scores indicating more depressive mood. The alpha coefficient from Kroenke et al. (2001) was .89 in primary patients and .86 in Ob-Gyn patients. The Cronbach's alpha for the current study indicated good internal consistency, α = .89. See Appendix K for a full list of the items.

Procedure

The survey link was shared with medical clinics and legal services that serve transgender communities. Additionally, the survey was also shared with faculty in gender and LGBTQ+

studies programs at universities around the country in order to reach a diverse group of participants. Finally, the survey link was posted on social media sites that reach or target members of the LGBTQ+ communities and their allies. Upon entering the survey, participants were presented with the informed consent. The informed consent gave general guidelines and information about the study, stating that participants must be eighteen years old, explained the minimal risk to participants, and let participants know that if at any time they chose to stop the survey they may simply exit the survey. Participants selected the agree button in order to proceed to the survey. If they selected disagree they did not see any of the survey questions and they were exited out of the survey. The informed consent can be found in Appendix L. The participants completed the demographic items and then the following questionnaires were presented in a random order: The Gender Minority Stress and Resilience measure, the Family of Origin subscale from the Daily Heterosexist Experiences Questionnaire, the Intimacy subscale from the Transgender Positivity Identity measure, the Identity Concealment Measure**,** the Relationship Function Inventory, the Satisfaction with Life Scale, GAD-7, and PHQ-9. Two statements were presented at different points in the survey to check for random responding: “I traveled around the world three times today” and “I breathe air.” The survey took approximately 45 minutes to complete. After completing all of the questionnaires, the participants were presented with the debriefing form explaining the purpose of the study and giving them information about psychological services should they be needed; see Appendix M for the Debriefing Form. The collected data was entered into the database automatically when the participant chose the “submit” button to finalize the survey. If participants chose to enter into the study drawing, they were directed to a separate and secure page to provide their email address in order to ensure that their data would not be associated with their contact information. Participants that elected to

enter the drawing were eligible to win one of four $50 Amazon.com gift cards and the gift cards were sent via email to participants. Participants were also provided with contact information of the primary investigator in case they had questions related to the study.

Results

Descriptive Statistics

Primary analyses were conducted investigating psychological health, intimacy, support, and gender minority stress variables. Means and standard deviations for all of the variables were calculated and can be viewed in Tables 1 and 2. Correlations were calculated among all of the variables and subscales. As expected there was a significant positive correlation between anxiety and depression and significant negative correlations for anxiety and depression with life satisfaction. Anxiety and depression each had a significant negative correlation with perceived current strong support system, and a supportive family. Depression was also negatively correlated with support in the academic setting with teachers. Life satisfaction was positively associated with having a perceived current strong support system, support in the workplace, from teachers and peers, as well as more positive views of their intimate relationships. Furthermore, a perceived current strong support system was positively correlated with support from family, work, teachers, and peers, as well as more positive views of their intimate relationship. See Table 3 for zero-order correlation coefficients among the support, psychological health, and intimacy variables. Age did not correlate significantly with psychological well-being variables, minority stress variables, intimacy, or support from family, work colleagues, or teachers. It did correlate with peer support with younger ages associated with more peer support, $r(60) = -.31$, $p = .014$.

Predictors of Psychological Well-being

Support Variables

Regression analyses were conducted to test the hypotheses that more support overall would predict better psychological health and that family support would be the strongest predictor of psychological health. Separate analyses were run for the criterion variables which were anxiety (scores on the GAD-7), depression (scores on the PHQ-9), and life satisfaction (scores on the Life Satisfaction Scale). Predictor variables for anxiety were scores on the Family of Origin Subscale, the Relationship Function Inventory (workplace, teacher, and peer support), and perceived strength of the participants' current support system. The simultaneous regression was significant for anxiety, $R = .57$, $F(5, 46) = 4.36$, $p = .002$. As predicted, not only was family support the strongest predictor of anxiety, it was the only significant predictor, with more family support predicting less anxiety, $\beta = -.403$, $t = -3.1$, $p = .004$. Work support, $\beta = .197$, $t = 1.4$, $p = .161$; peer support, $\beta = -.244$, $t = -1.5$, $p = .129$; teacher support, $\beta = .014$, $t = 0.1$, $p = .934$; and a perceived strong support system $\beta = -.209$, $t = -1.6$, $p = .126$, were not significant.

A hierarchal regression analysis was conducted on life satisfaction because education level, income level, and relationship status predicted life satisfaction. See the subsections for education, income, and relationship status under Exploratory Analyses for more details on these demographic variables. Income, education, and relationship status were entered into step one and support from family, work, peer, teachers and a perceived current strong support system were entered on the second step. See Table 4 for the results.

In the first step of the regression, higher income levels significantly predicted greater life satisfaction, $F(3, 48) = 3.14$, $p = .034$. See Table 4 for the beta coefficients. Including the support variables in the second step significantly increased the variance accounted for in life satisfaction,

$\Delta R^2 = .44$, $F(5, 43) = 9.33$, $p < .001$. Income levels were no longer significant; however, being in a relationship and currently having a strong support system significantly predicted greater life satisfaction. See Table 4 for the beta coefficients. The final results were $R = 0.77$, $F(8, 43) = 8.03$, $p < .001$.

Another hierarchal regression analysis was conducted on depression because income levels predicted depression. See the income level subsection under Exploratory Analyses for more information. Income level was entered into step one and then support from family, work, peer, teachers and a perceived current strong support system were entered on the second step. See Table 4 for the results.

In the first step of the regression, lower income levels significantly predicted more depression, $F(1, 50) = 5.51$, $p = .023$. See Table 4 for the beta coefficients. Including the support variables in the second step significantly increased the variance accounted for in depression, $\Delta R^2 = .34$, $F(5, 45) = 5.45$, $p = .001$. Income levels stayed significant; however, family support and perception of a strong support system were stronger predictors than income level. In addition, a perceived strong support system was the strongest predictor. The final results were $R = .66$, $F(6, 45) = 5.87$, $p < .001$.

Gender Minority Stress and Identity Concealment Variables

It was hypothesized that higher levels of minority stress and stigma and a greater desire to conceal one's gender identity would be associated with more psychological distress and lower life satisfaction. Simultaneous regression analyses were conducted to test this hypothesis. Separate analyses were run for the criterion variables which were anxiety (scores on the GAD-7), depression (scores on the PHQ-9), and life satisfaction (scores on the Life Satisfaction Scale).

Predictor variables were scores on the Gender Minority Stress Scales and the Identity Concealment Scale.

The regression was significant for depression, $R = .58$, $F(8, 73) = 4.62$, $p < .001$; and life satisfaction $R = .56$, $F(8, 73) = 4.22$, $p < .001$. The overall regression for anxiety was significant $R = .56$, $F(8, 73) = 5.00$, $p < .001$. Table 5 presents the beta coefficients for the regression analyses. The only significant predictor for depression was internalized transphobia with greater internalized transphobia predicting higher levels of depression. Greater levels of internalized transphobia and negative expectations predicted lower life satisfaction, however, internalized transprejudice was the strongest predictor. However, none of the individual predictors were significant. Community connectedness and pride were not significant predictors of anxiety, $R = .08$, $F(2, 90) = .31$, $p = .733$; depression, $R = .11$, $F(2, 93) = .53$, $p = .590$; and life satisfaction, $R = .21$, $F(2, 93) = 2.24$, $p = .112$. Table 6 presents the beta coefficients for this regression.

Exploratory Analyses

Exploratory analyses were conducted to determine whether demographic variables and gender affirming actions were significant predictors of psychological well-being, minority stress, and intimacy.

Gender Affirming Actions

One-way MANOVAs were calculated to examine the relation between gender affirming behaviors and psychological well-being. Separate analyses were conducted for the following independent variables which were the gender affirming behaviors (coded as Yes, participant had undertaken the behavior or No, participant had not undertaken the behavior): Name Change, Gender Markers, Hormones, and Surgery. The dependent variables were psychological health, specifically anxiety, depression, and life satisfaction.

There was no significant multivariate main effect of steps taken to affirm gender between those who had changed their names and those who had not for all three psychological health measures, anxiety, depression, and life satisfaction $F(1, 92) = .91$, $p = .44$, partial $\eta^2 = .029$. Also, none of the univariate results were significant. See Table 7 for the means, standard deviations, and the univariate results. Also, the multivariate main effect for those who had taken steps to change their gender markers and those who had not on psychological health was not significant, $F(1, 92) = 1.9$, $p = .13$, partial $\eta^2 = .060$. However, univariate results indicated that people who used gender markers reported significantly more life satisfaction than those who did not. There were no significant multivariate main effect of steps taken to affirm gender between those that had utilized hormones and those that had not for psychological health $F(1, 92) = 1.1$, $p = .35$, partial $\eta^2 = .036$. None of the univariate results were significant. Finally, there was a significant multivariate main effect of steps taken to affirm gender between those who had undergone surgery and those who had not $F(1, 92) = 3.2$, $p = .028$, partial $\eta^2 = .096$. The univariate results indicated that people who had surgery reported significantly less anxiety and more life satisfaction than people without surgery. See Table 7.

Individual t-tests were conducted to examine minority stress variables and intimacy variables as a function of gender affirming behaviors. See Tables 8, 9, 10, and 11 for the means, standard deviations, and statistical results. There were no significant differences between participants who either chose to change their name or keep their current name for any of the minority stress, identity concealment, or intimacy variables. People who used gender markers, received hormone treatments, and elected to have surgery reported greater levels of gender affirmation than those who did not. Also, people who elected to take hormones reported more intimacy with their partner than those who did not take hormones.

Current Gender Identity

Separate one-way analyses of variance were conducted to evaluate the association between psychological health variables (anxiety, depression, and life satisfaction) and current gender identity. For the purpose of statistical analyses, participants that identified as male or transman were combined under the category of transman, participants that identified as female or transwoman were combined under the category of transwoman, and participants that identified as non-binary, gender queer, or other were combined under the category of all others. Table 12 presents the means, standard deviations, and ANOVA results. There were no significant results.

Separate one-way analyses of variance were conducted to evaluate the association between gender minority stress and resilience, intimacy, and identity concealment variables and current gender identity. The results of the one-way ANOVAS were significant only for the rejection, non-affirmation, and nondisclosure variables. Table 13 presents the means, standard deviations, and ANOVA results. Tukey's post hoc analyses indicated that participants who identified as transman reported significantly higher levels of rejection than participants categorized as transwoman, $p = .041$. Rejection levels did not differ significantly between transmen and all others, $p = .324$, or between transwomen and all others, $p = .506$. Tukey's post hoc analyses indicated that participants who identified as transmen reported lower levels of non-affirmation than participants categorized as all others, $p < .001$. Non affirmation levels did not differ significantly between transmen and transwomen, $p = .056$ or between transwomen and all others, $p = .447$. Tukey's post hoc analyses indicated that participants who identified as all others reported significantly lower levels of nondisclosure than participants categorized as transman, $p = .024$. Nondisclosure levels did not differ significantly between all others and transwomen, $p = .276$, or transmen and transwomen, $p = .858$.

Education

Independent t-tests were calculated to examine the differences between participants that had some college or less and those that had completed college or earned a higher degree on psychological health variables, gender minority stress and resilience, and intimacy variables. There was a significant difference with regard to life satisfaction but education was not associated significantly with anxiety or depression. Those that had completed college and earned a higher degree reported greater levels of life satisfaction. Participants that had some college or less and those that had completed college or earned a higher degree did not differ significantly on the gender minority stress and resilience and intimacy variables. Please see Tables 14 and 15 for means, standard deviations, and t-test results.

Income Level

To examine the differences between income levels $25,000 and under and $25,001 and over on psychological health variables, gender minority stress and resilience, and intimacy variables independent t-tests were calculated. There was a significant difference in levels of depression and life satisfaction, but not anxiety. Those who earned more than $25,000 reported lower levels of depression and greater life satisfaction than those earning $25,000 or less. Participants with an income level below $25,000 and those that had an income over $25,001 did not differ significantly on the gender minority stress and resilience and intimacy variables. Tables 16 and 17 present the means, standard deviations, and the t-test results.

Relationship Status

In order to examine the differences between single individuals and those in a relationship on psychological health variables, gender minority stress and resilience, and intimacy variables independent t-tests were calculated. There were significant differences in levels of life

satisfaction and intimacy, but not anxiety, depression, or minority stress variables. Individuals in a relationship reported higher levels of life satisfaction and intimacy. Those in a relationship reported significantly higher levels of life satisfaction and intimacy than their counterparts. Please see Tables 18 and 19 for the means, standard deviations, and the t-tests results.

Discussion

In order to provide better support for individuals whose gender identity does not align with their natal sex, it is important to gain a better understanding of how various types of social support might be associated with psychological well-being. The current study examined components of support that may predict better mental health outcomes for transgender people. The purpose of the study was to provide medical and mental health providers, who work with individuals that are exploring their gender identity, with a better understanding of how this population of people is negatively impacted by lack of support, stress and stigma. On a broader scale, the findings of this study may provide the general public with education that may help to influence policy and care for transgender people. Prior research studies have suggested that support from an individual's family, friends, co-workers and teachers are predictive of positive life outcomes (American Psychological Association, 2015; Capous-Desyllas & Barron, 2017; Olson et al., 2015; Ruggs et al., 2015; Ryan et al., 2010; Schimmel-Bristow et al., 2018; Sherer, 2016). Furthermore, this study examined how levels of minority stress and stigma and a greater desire to conceal one's gender identity affected levels of psychological distress and overall life satisfaction.

Predictors of Psychological Well-being

Support Variables

The findings of this study provide an understanding of how important family support is to the overall mental health of the transgender person. As hypothesized, participants that perceived greater levels of support from their family reported significantly less anxiety and family support was the only significant predictor of lower levels of anxiety. Furthermore, family support and a perception of having a strong support system predicted significantly less depression. Based on psychological theories (e.g. attachment, inborn tendencies, birth order effect), a supportive childhood home life should be one of the best predictors of overall psychological well-being (Babcock et al., 2000; Bowlby, 1988; Carlson, & Englar-Carlson, 2017; Ellis et al., 2009; Holmes, 1993; Mooney, 2010). The findings of this study support previous research suggesting that parental support adds a layer of protection against the development of depressive symptoms and can provide the transgender person with feelings of security that can help them feel safe (Giammattei, 2015; Simons et al., 2013; Toomey et al., 2010; van Beusekom et al., 2015). Additionally, Pflum et al. (2015) discovered that transgender individuals described lower symptoms of depression and anxiety when they reported general social support. Pflum et al. (2015) considered general social support to include not only peer networks, but also family. Finally, having a perceived strong support system was the only significant predictor of greater life satisfaction. Prior research supports these findings and has suggested that support from one's family can provide the individual with feelings of security that can help them feel safe (Giammattei, 2015; Ryan et al., 2010; Seibel et al., 2018; Simons et al., 2013; Toomey et al., 2010; van Beusekom et al., 2015).

According to the Report of the 2015 U.S. Transgender Survey (James et al., 2016) of 27,715 transgender participants, 39% reported “serious psychological distress” compared to only 5% of the U.S. population. This distress was associated with bouts of rejection, discrimination, and violence. From a therapeutic standpoint, there are a variety of ways that clinicians can aid transgender clients as they begin their journey to explore their gender identity. A clinician may need to assist the client to develop support systems that can provide protective factors to reduce psychological distress and this may need to be openly discussed.

Based on the findings of this study, family support was the only predictor for anxiety. However, the strongest predictor for depression was a perceived strong support system followed by family support. Clinicians might encourage their clients to involve family members in sessions and utilize this time to allow the client to share their story about their gender identity journey. Many times families are surprised to discover that their family member has been feeling this mismatch between their natal sex and their present gender identity and may feel as though they are blindsided (Wagner & Armstrong, 2020). Therapeutic sessions may allow transgender clients to communicate their experiences in what they perceive to be a supportive environment. This also allows the clinician to provide psychoeducation and normalize the concerns that family members may have for the transgender individual. Families may experience confusion and grief because they may feel they are losing a daughter or son because of the transgender person’s changing gender identity (Coolhart et al., 2017; Dierckx et al., 2015; Wagner & Armstrong, 2020). Assisting families to work through all of the emotions they may be experiencing can be beneficial for all parties concerned.

For the individual who does not have a supportive family environment, a clinician might aid the client in creating their own “supportive family.” Participants in this study who were in a

relationship reported more life satisfaction than those who were single. Additionally, the perception of a strong support system was predictive of more life satisfaction and less depression. Helping a person develop these support systems may be one way to reduce psychological distress and improve quality of life. This supportive family may include a variety of interpersonal relationships (romantic partners, supportive transgender community members, close friendships, teachers).

From a societal standpoint fostering an atmosphere of acceptance and understanding would go a long way toward reducing psychological distress for the transgender individual. Academic settings might consider how they support transgender students. Several options that an academic setting might consider include allowing all students to elect a preferred name and pronouns that would be the only name visible to professors and staff. Transgender students would then be able to utilize their preferred name and pronouns so that they are not accidentally "outed" by being called an incorrect obviously gendered name. Pryor et al. (2016) reported that trans people often feel isolated when they are housed in a private room. One way to address these feelings of isolation may be to make modifications to student housing applications simply asking if the applicant would be open to having a roommate that identified as transgender or gender nonconforming. This would allow for a more inclusive housing setting that didn't isolate the transgender student simply based on gender identity. Additionally, any student that was exploring their gender identity would not be outed for requesting status as a transgender or gender nonconforming student. Furthermore, creating floors in dorms that are "ally floors" would allow for not only members of the LGBTQ population to feel safe, but would also allow individuals that may be exploring their gender or sexual identity to live in a more supportive environment. Past research reported that transgender students expressed discomfort when using

the showers in their dorms (Pryor et al., 2016). These ally floors may provide a sense of security and safety for the transgender and gender nonconforming student when utilizing the restrooms and showers thus alleviating the need to utilize these facilities early in the morning or late at night to avoid being discovered (Pryor et al., 2016). Finally, providing "Safe Zone" spaces throughout the academic campus and educating the faculty, staff, and students about these locations would allow for students to be aware of allies on campus that they could approach for assistance. Many campuses offer these types of safe zones, but making all students aware of their location by increasing the size of these stickers and improving information on campus websites and during student orientation may increase awareness.

For transgender individuals, the work setting may present more of a challenge for them as they begin to live their life as their preferred gender. As noted previously when a person decides to transition, in order to affirm their gender identity, there are many challenges if they wish to keep this transition private. One of the biggest challenges is a possible change of employment. Prior studies have suggested that when transgender individuals change employment they must "out" themselves when they complete their application as they are required to list any names they have worked under and their work history may not be associated with their new name (Pepper & Lorah, 2008). One way to address this might be to consider only utilizing a person's social security number to verify work history. The social security number could be simply the number with only the work history attached and no gender identity associated with the data. The previous employer upon the exit of the employee could simply check a box yes or no if the individual would be accepted for rehire. This would reduce the need to contact previous employers and protect the privacy of the individual applicant. It goes without saying that education throughout the work environment is paramount to providing understanding and safety

for the transgender person. This type of education may be provided via an annual employee meeting or simply included in a monthly or quarterly newsletter.

Gender Minority Stress and Identity Concealment Variables

For the transgender individual, supportive factors may provide protection from psychological distress. However, gender minority stress and a desire to conceal past or present changes to one's gender identity may lead to greater psychological distress. Even though the overall regression was significant, none of the individual variables were significant predictors of anxiety. The only significant predictor of depression was internalized transphobia, with greater levels of internalized transphobia predicting more depression. These findings are consistent with the study by Scandurra et al. (2018) when they examined anti-transgender discrimination and found that internalized transphobia mediated the relationship between depression and anti-transgender discrimination.

Regarding life satisfaction, the individuals in the current study who reported greater levels of internalized transphobia and greater levels of negative expectations for the future, (e.g. how they might be accepted or treated by others, if they would be able to find a job, if they might be a victim of a crime) were significantly more likely to report lower levels of life satisfaction. By definition, internalized transphobia is driven by societal expectations of gender expression (i.e mannerisms, clothing, hairstyle, choice of toys in children) and when that expression is counter to these expectations the individual may experience shame toward themselves or disdain toward others in the transgender community (Scandurra et al., 2018). This discomfort may affect how comfortable transgender individuals are feeling when socializing in public and enjoying activities that are of a more public nature. Additionally, if transgender individuals are feeling this discomfort with themselves this may go hand in hand with expecting interactions with others to

be more negative. Therefore, a transgender person's satisfaction with their life may be understandably more negative.

There are several reasons that the other minority stress variables and identity concealment variables were not significant predictors of psychological health. It is possible that this sample of the overall population has already addressed psychological distress they may have experienced related to their gender identity through therapeutic interventions. It may be possible that the different minority stress variables predict different aspects of psychological health for each of the participants (e.g. shame, low self-esteem, guilt) and these may not rise to the level of distress and impairment for each person. Furthermore, the PHQ-9 asks the individual to reflect over the past two weeks and these responses may fluctuate based on activity over those two weeks.

Gender Affirming Behavior

Psychological Health

In order to better understand gender affirming behaviors and their impact on the psychological well-being of transgender individuals, exploratory analyses were conducted examining the difference between those who had taken steps to affirm their gender (name change, gender marker changes, hormones, surgery) and those who had not taken steps to affirm their gender. James et al. (2016) reported that 91% of their survey responders wanted to take steps to affirm their gender. The results of the present study suggested that individuals who had utilized gender marker changes and those who had undergone a surgical procedure reported significantly more life satisfaction than those who had not elected to utilize gender marker changes or surgery. Furthermore, individuals who had undergone surgery reported significantly less anxiety. There were no significant differences between individuals who had or had not changed their name or taken hormones.

These findings suggest that how individuals present to society and how satisfied they feel in their life may be connected to how authentic they feel in their gender identity when presenting to society. van den Brink et al. (2020) examined transgender congruency and self-esteem, as well as how rumination may or may not affect this relationship. Their findings suggested that the more congruent a person's appearance is with their accepted gender identity the greater their levels of self-esteem and the lower their levels of rumination about their gender identity. They further suggested that this congruency may be a protective factor against psychological distress. Additional research has discovered that gender affirming behaviors foster more positive psychological well-being, reduce distress, and significantly decreases suicidality (Allen et al., 2019; Glynn et al., 2016). Furthermore, Becker et al. (2018) reported on clinical samples of adolescents and adults diagnosed with gender dysphoria and discovered that those participants who had utilized some "transition-related medical intervention" (e.g. hormones and or surgery) reported significantly better body image following these medical interventions. However, these authors did suggest that while there was a significant improvement in body image, additional mental health interventions focusing on the acceptance of their body may be beneficial. Finally, for transgender individuals, the tenor and pitch of their voice can be a concern and in society, higher pitched voices suggest a female person and lower pitched voices suggest a male person. Watt et al. (2018) discovered that trans men whose voices were consistent with their gender identity reported better life satisfaction, quality of life, increased self-esteem, decreased levels of anxiety and depression. Furthermore, Keo-Meier et al. (2015) found improved psychological functioning as assessed with the MMPI-2 over a three-month period in transgender men receiving testosterone treatment. Overall, research supports the benefits of various gender affirming behaviors in order to reduce psychological distress.

Gender Minority Stress and Resilience, Identity Concealment, and Intimacy

There are a variety of ways that people may elect to affirm their gender. These affirming behaviors can have an impact not only on the individual's psychological well-being but may also impact stress levels associated with how society may view them. This study discovered that individuals who utilized gender marker changes, hormones, or surgery reported significantly more affirmation of their gender identity by others than those who had not utilized these types of affirming behaviors. When individuals take the steps to change their gender markers, utilize hormones, or elect to have surgery there is a greater probability that their gender presentation will feel more authentic to them and there is a greater likelihood their gender will be affirmed by other people**.** Furthermore, people who were on hormones reported more intimacy with their partners than those who did not take hormones. These gender affirming behaviors may have allowed participants who utilized gender maker changes, hormones, and surgery to feel more accepted by society and less stigmatized as they present as their true authentic self. Thus, they may spend less time defending who they are as a person and simply just being themselves and interacting with society. These findings offer a foundation that supports the benefit of utilizing gender affirming procedures such as gender marker changes, hormones, and surgery to assist the person to present as their preferred gender. Specific research examining how these gender affirming behaviors affect gender minority stress, the need to conceal gender identity, and intimacy levels was not discovered by this writer. However, previous studies have examined the way that incongruent facial appearance may influence how others view the trans person and this may negatively impact the relationship. Gerhardstein and Anderson (2010) discovered that the trans person whose facial appearance was more congruent with their desired gender was rated more positively (e.g. as happy, well-adjusted) than the trans person whose facial appearance was

not congruent. That is to say, trans women who looked more masculine were rated more negatively than trans women who appeared more feminine. Likewise, trans men who looked more feminine were rated more negatively than trans men who looked more masculine. These negative evaluations were significantly correlated with transphobia (Gerhardstein & Anderson, 2010). Higher levels of transphobia have been connected to discrimination, victimization and violence toward transgender people (Hill & Willoughby, 2005; Mizock & Meuser, 2014) and these types of behaviors may lead a transgender person to assume society will have more negative expectations toward their appearance triggering them to feel a greater need to conceal their present or past gender identity for fear of being rejected (Timmins et al., 2017).

Demographic Comparisons

Gender Identity

Although sample sizes allowed for gender identity comparisons, these comparisons should be interpreted cautiously because the sample size of transmen was more than three times as large as that of transwomen. Results for the psychological health variables did not differ significantly based on the participant's gender identity. The transmen in this study reported significantly higher levels of rejection than transwomen but did not differ significantly from "all others." The transwomen in this study may have been better adjusted and have learned to cope better than the participants that identified as transmen. Prior research conducted by Schilt and Connell (2007) examined transmen in the workplace and reported that transmen experienced rejection from cisgender women at greater rates than from cisgender men. As previously noted when a transgender person is faced with transphobia, sexual prejudice, discrimination, and victimization they assume society will be more negative and fear rejection (Timmins et al., 2017).

The transmen in this study reported significantly lower levels of non-affirmation of their gender than “all others” but not transwomen. Previous research has suggested that genderqueer non-binary individuals, those who choose not to be classified as male/transman or female/transwoman, may develop their gender identity slower than transmen and transwomen. Furthermore, they may not elect to seek out medical interventions as quickly as transmen and transwomen and thus may generally feel affirmed (Tatum et al., 2020). These authors reported that the trajectory of gender identity and “transition milestones” between transmen and transwomen were similar and this may account for the lack of significant differences between transwomen and transmen in the current study.

Individuals who were placed in the “all other category,” for the sake of data analysis, reported significantly lower levels of nondisclosure when compared to transmen suggesting that they are not as concerned about concealing their current or past gender identity. There was no significant difference between “all others” and transwomen. Rood et al. (2017) discovered that for transgender people concealing their identity was a day-to-day experience. The transmen in the current study may have felt a greater need to conceal and protect themselves and their identity. As noted previously, Tatum et al. (2020) examined the differences in the trajectory of transitioning between binary transgender individuals (people that identify as male/transman or female/transwomen) and non-binary transgender individuals (people who elect to avoid the categorization of male or female) and they suggest that non-binary transgender individuals seem to traverse their lives and explore their gender identity differently than the binary transgender person.

Education

Participants who had at least completed college reported greater levels of life satisfaction than those who had less than a college degree. Previous research that has examined the benefits of pursuing higher education discovered a positive association between education and life satisfaction (Botha, 2014; Ma del Mar Salinas-Jiménez & Salinas-Jiménez, 2011). These researchers concluded that education had an effect on life satisfaction when the education level was greater than the average education obtained by those in a person's social community. Botha (2014) further examined this connection and reported that life satisfaction was positively correlated with education as additional years were obtained. Education levels did not predict anxiety, depression, or any of the minority stress and resilience variables.

Income

Individuals earning greater than $25,000 a year reported lower levels of depression and greater levels of life satisfaction. According to James et al. (2016), a survey of 27,715 transgender participants who were compared to the US population, were three times as likely to have an annual household income below $10,000, they are frequently unemployed, and twice as likely to live in poverty. All of these factors may be contributing to higher levels of depression and lower levels of life satisfaction for the participants whose incomes are less than $25,001. A lower income reduces an individual's ability to seek medical gender affirming services and thus one is unable to present to the world as their preferred gender. Transgender individuals who have higher incomes are better able to seek out and afford therapeutic services to address mental health issues when they arise and thus reduce and better manage depressive episodes. Additionally, a higher income allows people, in general, to participate in a variety of enjoyable activities that may add better balance to their life and allow them to feel more satisfied.

Relationship Status

Comparisons between those in a relationship and those who were single revealed that participants in a relationship reported significantly higher levels of life satisfaction and intimacy than their counterparts. Previous research has suggested that individuals experiencing greater satisfaction in their relationships reported less stress than those who were not satisfied in their relationships (Dargie et al., 2014). Married individuals tend to report greater life satisfaction and well-being than people who are not married (Grover & Helliwell, 2019). Intimate relationships may also contribute to overall well-being (Riggle & Mohr, 2015). For the transgender individual healthy relationships are built on respect, mutually set boundaries (comfort with being out, or discussion certain topics), and good communication (Belawski & Sojka, 2014).

Implications and Future Research

The present study examined areas of support to include family, interpersonal relationships, academic, and work settings in order to inform society as a whole, but specifically to aid mental health and medical professionals to gain a better understanding of the day-to-day challenges of the trans person as well as helping to shape policy and procedure that will be more supportive. These findings promote a variety of ways that providers and policy makers can help to foster life satisfaction in the transgender population and decrease psychological distress. Life satisfaction may grow out of the perception of a strong support system as reported by the participants of this study. Mental health and medical providers might assist trans people to explore these areas of support in their life so that they might develop a stronger awareness and perception of the support that surrounds them. This study did not examine support from an intimate partner. Future research should examine how support from an intimate partner affects psychological well-being and if this type of support may be as beneficial to the transgender

person as family support. Through this increase of support and acceptance, the transman or transwoman may be aided in reducing internalized transphobia and negative expectations associated with how society views them. The American Psychological Association (2015), through their guidelines for psychological practice with the TGNC population, recognize the role of social support and affirmative interactions on "positive life outcomes" for the transgender individual. Providers and policymakers should consider how their interactions and policy decisions best support and stimulate these life outcomes.

Our exploratory findings suggest greater life satisfaction for the transgender person when they had attained higher levels of education, earned better wages (greater than $25,000), and were in a relationship. Creating policies that will allow the transgender person to feel more accepted and less exposed as they live their day-to-day life may create an environment that allows the transgender person to thrive. The World Professional Association for Transgender Health (WPATH) has created a standard of care for the TGNC population and they suggest that health is not only associated with physical and mental well-being, but is also affected by social and political attitudes (Coleman et al., 2012). These standards of care offer support to providers of all disciplines as well as education for policymakers. Further research might continue to examine ways in which providers and policymakers can better support the transgender person in order to promote greater life satisfaction. Within the educational setting, administrators might consider policies that do not expose transgender students to isolation or sharing their gender identity before they may feel safe to share their life story. Additionally, teachers may want to address their own biases in order to support the student through the use of preferred name and pronouns. Executives in the work setting when making policy and creating procedures might want to consider how their decisions may affect the transgender employee. Are they encouraging

support and acceptance of preferred pronouns for all employees, cisgender or transgender, are they allowing for employee name changes, and are they providing changes within their online footprint to allow the employee to present as their preferred gender? Creating a work culture that is accepting of diversity overall is healthy not only for the transgender employee, but for any employee that may appear to be different.

Regarding support variables, specifically family support, medical and mental health providers may have several options when working with a child, adolescent, or adult who is exploring their gender identity or seeking to affirm their gender identity through changing their name, gender presentation, taking hormones, or having surgery. First, the clinician may want to provide the families (parents, spouse, children) with psychoeducation in order to help them provide the necessary support that an individual who is seeking to explore and affirm their gender identity might require (e.g. the use of the proper pronouns, affirming the person's preferred gender identity, advocating for the person in academic or bureaucratic settings). Second, if the client has reached the age of majority, between 18-21 years old depending on the state, and no longer lives at home or no longer has a supportive family home-life, the clinician may assist the client in developing their own "social" family. This may be accomplished by assisting the client to determine friends or adult mentors who might be able to provide the support that is typically provided by a mother or father. Finally, for the adult that chooses to transition the clinician may need to help the client navigate a variety of different settings. These settings might include parents and siblings, present or future interpersonal intimate relationships, relationships with their own children, work environments and co-workers, educational institutions, and medical providers, as well as discovering the method in which they choose to affirm their gender. Helping a client who has chosen to transition later in life may be necessary

to reduce the psychological distress for not only the individual that is transitioning, but also those people that are part of their interpersonal supports. Further research is needed to examine affirming behaviors and the effect they have on improved psychological functioning and greater life satisfaction across the life span. By gaining a better understanding of how these gender affirming behaviors improve psychological well-being, society would be better able to advocate for change and support the needs of transgender people. The American Psychological Association guidelines acknowledge the importance of the roles that stigma, prejudice, and discrimination have on the overall well-being of transgender people and encourage psychologists to advocate for their clients (American Psychological Association, 2015). Additionally, WPATH is committed to the health of the TGNC person and strives to provide and promote understanding through research, education, and public policy in order to promote greater respect for TGNC individuals (Coleman et al., 2012). Further research might consider additional advocacy opportunities that would promote further understanding and acceptance of the transgender population. Finally, replication of this study would be beneficial to determine how generalizable these findings are to the overall population of transgender people. A deeper understanding of the different ways that people elect to identify (transgender, gender non-conforming, non-binary, gender queer) and affirm their preferred gender (presenting as their preferred gender, name change, gender marker change, hormones, surgery) would add greater knowledge for the medical and mental health providers as well as for policymakers.

Limitations and Strengths

The present study has several limitations. The use of a convenience sample, such as snowball sampling to recruit participants, may have led to a biased sample, e.g., better educated participants. In our sample, 81.4% identified as having completed at least some college and may

be a much larger percentage than might be found in the broader population. Additionally, the sample may not be very diverse with regard to age, preferred gender identity, and race or ethnicity. Our participants reported an average age of 26 and our findings may not generalize to younger adults, such as adolescents, or older transgender people. In the current study 87.9% identified as White/Caucasian, however, in the U.S. Transgender Survey there was a much more diverse pool of participants with only 62.2% of the participants reporting to be White/Caucasian (James et al., 2016). Furthermore, the participants in the present study primarily identified as male or transman and thus females or transgender women may not be fully represented. The demographics of this study may make the findings more difficult to generalize to other samples of transgender people. The young, White/Caucasian, predominately male, educated people that were part of this study may have felt more comfortable to share their life experiences. Additionally, there are inherent risks with the use of self-report such as motivation to complete the survey or responding in a socially desirable way. Furthermore, it is possible that the participants in this study may have experienced less psychological distress compared to those who may have elected not to participate. Other methods that might be utilized in future research could include a more longitudinal design to examine psychological well-being over an extended period of time which would allow the examination of change over time. An interview based qualitative survey would allow the researchers to ask follow up questions to gain better clarity of the lived experiences of the participants. Finally, a limitation of correlational design is the inability to determine temporal precedence as well as how other variables may be affecting the observed associations.

Despite these limitations, the current research also has a few key strengths. As noted previously, several studies have examined family support, social and interpersonal support, and

support in academic and work settings separately or in comparison to one of the other domains (American Psychological Association, 2015; Capous-Desyllas & Barron, 2017; Olson et al., 2015; Ruggs et al., 2015; Ryan et al., 2010; Schimmel-Bristow et al., 2018; Sherer, 2016). However, this study examined sources of support (family, social, academic, and work) in combination to determine which types of support best predict psychological well-being in transgender individuals. Also, this is the first study that this researcher is aware of that has considered how gender affirming behavior (gender maker changes, hormones, surgery) may affect psychological well-being. Further studies should focus on how these specific gender affirming behaviors assist the trans person to present as their true authentic self and how each of these specific gender affirming behaviors affect psychological well-being. These findings offer a unique look at the steps medical and mental health providers and policymakers should consider when supporting this population.

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Table 1

Means and Standard Deviations for Psychological Health and Support Variables

Variables	*N*	*M*	*SD*	Range
Anxiety	95	10.7	5.9	0-21
Depression	98	12.3	6.9	0-27
Life Satisfaction	98	18.5	7.4	5-35
Family	94	21.5	7.2	0-30
Work	86	32.2	12.7	8-56
Peer	62	38.1	13.5	8-56
Teachers	59	28.8	10.6	8-53

Note. Higher scores indicated greater levels of anxiety, depression, greater life satisfaction, and more support from family, co-workers, peers, and teachers.

Table 2

Means and Standard Deviations for Minority Stress, Identity Concealment, and Intimacy Variables

Variables	*N*	*M*	*SD*	Range
Discrimination	99	4.7	0.9	0-5
Rejection	99	5.5	1.1	0-6
Victimization	99	5.8	1.0	0-6
Non-affirmation	97	14.1	6.9	0-24
InternalizedTP	95	12.7	7.3	0-30
Pride	97	15.4	6.8	0-27
Community Connectedness	98	12.2	4.0	2-19
Negative Expectations	94	23.9	7.6	0-40
Identity Concealment	95	91.1	20.3	51-141
Intimacy	98	23.2	8.2	5-35

Note. Higher scores indicated a more positive view of the relationship with their intimate partner. Higher scores on the remaining variables suggested more experience with discrimination, rejection, victimization, non-affirmation of gender identity, more internalized transphobia and negative expectations for the future, along with a strong desire to conceal their current gender identity or their prior gender. Greater levels of pride, and community connectedness were indicated by higher scores on the corresponding scales.

Table 3

Zero-order Correlations between Support Variables, Psychological Health, and Intimacy

	PHQ-9	Life Sat.	Current Support	Family	Work	Peer	Teacher	Intimacy
GAD-7	.70***	-.42***	-.41***	-.32**	.00	-.18	-.07	-.07
PHQ-9	--	-.62***	-.50***	-.30**	-.14	-.23	-.28*	-.17
Life Sat.		--	.58***	. 18	.26*	.36**	.38**	.38***
Current Support			--	.30**	.23*	.21	.29*	.20
Family				--	.09	.04	-.07	-.03
Work					--	.04	.33*	.17
Peer						--	.61***	.18
Teacher							--	.19

Note. Sample sizes range from 54-98. GAD-7 = Anxiety measure; PHQ-9 = Depression measure.

*$p \leq .05$. **$p \leq .01$. ***$p \leq .001$.

Table 4

Standardized Beta Coefficients for the Hierarchical Regression Analyses for Demographic Variables and Support Scales on Depression and Life Satisfaction

	Depression					Life Satisfaction				
	Beta	*t*	*p*	R^2	ΔR^2	*Beta*	*t*	*p*	R^2	ΔR^2
Step 1				.10	.10				.16	.16
Income level	-.32	-2.3	.023			.29	2.0	.050		
Educational level						.08	0.6	.557		
Relationship status						.18	1.3	.194		
Step 2				.44	.34				.60	.44
Income level	-.24	-2.1	.039			.17	1.6	.126		
Educational level						.09	0.8	.433		
Relationship status						.23	2.2	.033		
Family	-.30	-2.5	.017			.14	1.3	.213		
Work	.22	1.7	.090			.03	0.2	.826		
Peers	-.03	-.21	.832			.25	2.0	.055		
Teachers	-.22	-1.4	.160			.12	0.9	.397		
Current support	-.37	-3.0	.005			.44	4.1	.000		

Table 5

Standardized Beta Coefficients for the Simultaneous Regression Analyses for Minority Stress and Resilience and Identity Concealment Scales on Psychological Health Variables

	Anxiety			Depression			Life Satisfaction		
	Beta	*t*	*p*	*Beta*	*t*	*p*	*Beta*	*t*	*p*
Discrimination	.083	0.6	.539	-.171	-1.2	.235	-.145	-1.0	.299
Rejection	.006	0.1	.951	.023	0.2	.830	.095	0.9	.356
Victimization	-.100	-0.7	.466	-.051	-0.3	.734	.217	1.5	.128
Non-affirmation	.193	1.9	.059	.154	1.5	.140	-.054	-0.5	.603
Internalized Transprejudice	.057	0.5	.625	.349	3.0	.004	-.428	-3.6	.001
Negative Expectations	.085	0.7	.503	.233	1.8	.072	-.269	-2.1	.042
Nondisclosure	.220	1.7	.091	-.008	-0.1	.953	.077	0.6	.560
Identity Concealment	.286	1.8	.077	-.003	-.02	.987	.070	0.4	.671

Table 6

Standardized Beta Coefficients for the Simultaneous Regression Analyses for Community Connectedness and Pride on Psychological Health Variables

	Anxiety			Depression			Life Satisfaction		
	Beta	*t*	*p*	*Beta*	*t*	*p*	*Beta*	*t*	*p*
Community Connectedness	.000	-.00	.997	.105	.96	.338	.153	1.4	.158
Pride	-.083	-.74	.462	-.072	-.66	.513	.108	1.0	.316

Table 7

Means, Standard Deviations, and Univariate Results for Anxiety, Depression, and Life Satisfaction by Steps taken to Affirm Gender Identity

	Anxiety	Depression	Life Satisfaction
	M(*SD*)	*M*(*SD*)	*M*(*SD*)
Name Change			
Yes	11.2(6.1)	12.6(7.2)	18.7(7.3)
No	9.7(5.5)	11.0(6.1)	18.5(7.2)
F-value	1.45	1.24	.03
Partial η^2	.015	.013	.000
Gender Markers			
Yes	10.3(6.3)	11.7(7.1)	20.2(7.5)
No	11.0(5.5)	12.4(6.7)	17.0(6.8)
F-value	.34	.29	4.83*
Partial η^2	.004	.003	.050
Hormones			
Yes	10.2(5.8)	11.6(6.8)	19.4(7.4)
No	12.0(6.1)	13.3(7.2)	16.4(6.6)
F-value	1.48	1.09	2.93
Partial η^2	.016	.012	.031
Surgery			
Yes	9.3(5.8)	10.7(6.7)	20.8(7.7)
No	11.9(5.8)	13.3(6.9)	16.7(6.4)
F-value	4.92*	3.42	7.88**
Partial η^2	.051	.036	.079

Note. Sample sizes were as follows: Name Change, Yes = 61, No = 33; Gender Markers, Yes = 48, No = 46; Hormones, Yes = 71, No = 23; Surgery, Yes = 44, No = 50. The degrees of freedom were (1, 92).

*$p \leq .05$. **$p \leq .01$.

Table 8

Means, Standard Deviations, t-test Results, and Effect sizes for Minority Stress and Resilience, Identity Concealment, and Intimacy Variables as a Function of Name Change

	Yes Name Change	No Name Change	*t*-value	*d*
Discrimination	4.7(1.0)	4.8(0.9)	0.2	.051
Rejection	5.5(1.2)	5.6(0.9)	0.1	.029
Victimization	5.8(1.1)	5.8(0.8)	0.1	.029
Non-affirmation	12.8(7.1)	16.6(5.7)	2.7	.594
Internalized Transphobia	12.9(7.8)	12.5(6.3)	-0.2	.054
Pride	14.9(7.5)	16.3(5.1)	0.9	.216
Community Connectedness	12.0(4.2)	12.7(3.7)	0.9	.185
Negative Expectations	24.3(7.4)	23.1(8.0)	-0.7	.149
Nondisclosure	14.0(4.7)	11.8(5.3)	-2.0	.428
Identity Concealment	92.9(20.2)	87.8(20.4)	-1.2	.248
Intimacy	23.5(8.3)	22.8(8.0)	-0.4	.076

Note. Sample sizes were as follows: Name Change, Yes = 61, No = 33.

Table 9

Means, Standard Deviations, t-test Results, and Effect sizes for Minority Stress and Resilience, Identity Concealment, and Intimacy Variables as a Function of Gender Markers

	Yes Gender Markers	No Gender Markers	*t*-value	*d*
Discrimination	4.9(0.4)	4.6(1.2)	-1.6	.316
Rejection	5.7(0.7)	5.4(1.4)	-1.5	.307
Victimization	6.0(0.1)	5.6(1.3)	-1.9	.389
Non-affirmation	11.2(6.7)	16.9(5.8)	4.5***	.913
Internalized Transphobia	12.2(7.9)	13.2(6.6)	0.7	.149
Pride	15.3(7.2)	15.5(6.4)	0.1	.020
Community Connectedness	12.0(4.2)	12.5(3.8)	0.5	.109
Negative Expectations	24.6(6.8)	23.1(8.3)	-0.9	.196
Nondisclosure	13.7(4.5)	12.7(5.5)	-0.9	.199
Identity Concealment	92.5(19.2)	89.6(21.4)	-0.7	.142
Intimacy	24.0(7.8)	22.5(8.5)	-0.9	.176

Note. Sample sizes were as follows: Gender Markers, Yes = 46-48, No = 46-51.

***$p \leq .001$

Table 10

Means, Standard Deviations, t-test Results, and Effect sizes for Minority Stress and Resilience, Identity Concealment, and Intimacy Variables as a Function of Hormone Treatment

	Yes Hormones	No Hormones	*t*-value	*d*
Discrimination	4.8(0.7)	4.5(1.4)	-1.5	.289
Rejection	5.6(0.9)	5.3(1.5)	-1.2	.252
Victimization	5.9(0.8)	5.5(1.4)	-1.4	.280
Non-affirmation	12.9(7.0)	18.2(4.4)	3.3***	.899
Internalized Transphobia	12.4(7.4)	13.6(7.0)	0.7	.166
Pride	15.2(7.3)	16.1(4.5)	0.6	.150
Community Connectedness	12.3(4.0)	12.2(3.9)	-0.1	.023
Negative Expectations	24.5(6.7)	21.7(9.8)	-1.5	.334
Nondisclosure	13.7(4.8)	11.7(5.3)	-1.6	.382
Identity Concealment	92.2(19.3)	87.2(23.5)	-1.0	.232
Intimacy	24.4(7.9)	19.5(8.1)	-2.6*	.612

Note. Sample sizes were as follows: Hormones, Yes = 70-75, No = 21-24

*$p \leq .05$. ***$p \leq .001$.

Table 11

Means, Standard Deviations, t-test Results, and Effect sizes for Minority Stress and Resilience, Identity Concealment, and Intimacy Variables as a Function of Surgery

	Yes Surgery	No Surgery	*t*-value	*d*
Discrimination	4.9(0.4)	4.6(1.2)	-1.6	.338
Rejection	5.6(0.7)	5.4(1.3)	-0.9	.184
Victimization	6.0(0.1)	5.6(1.3)	-1.8	.374
Non-affirmation	11.6(7.3)	16.3(5.6)	3.6***	.727
Internalized Transphobia	12.2(7.9)	13.2(6.8)	0.7	.138
Pride	15.3(7.3)	15.5(6.4)	0.2	.038
Community Connectedness	12.0(4.2)	12.4(3.9)	0.5	.102
Negative Expectations	24.3(7.5)	23.5(7.7)	-0.5	.104
Nondisclosure	13.7(4.8)	12.8(5.2)	-0.8	.177
Identity Concealment	91.3(20.0)	90.8(20.7)	-0.1	.022
Intimacy	24.8(7.7)	21.9(8.4)	-1.8	.357

Note. Sample sizes were as follows: Surgery, Yes = 43-45, No = 51-54.

***$p \leq .001$.

Table 12

Means, Standard Deviations, ANOVA Results, and Effect Sizes for Anxiety, Depression, and Life Satisfaction by Current Gender Identity

		N	*M(SD)*	*F*	*df*	*p*	*Partial* η^2
Anxiety	Transman	55	10.6(5.8)	.53	(2, 92)	.591	.011
	Transwoman	15	9.7(6.7)				
	All Others	25	11.6(5.8)				
	Total	95	10.7(5.9)				
Depression	Transman	56	12.2(7.2)	.24	(2, 95)	.785	.005
	Transwoman	16	11.5(7.2)				
	All Others	26	13.0(6.4)				
	Total	98	12.3(6.9)				
Life Satisfaction	Transman	56	19.5(7.0)	1.52	(2, 95)	.223	.031
	Transwoman	16	15.9(8.9)				
	All Others	26	18.0(7.2)				
	Total	98	18.5(7.4)				

Note. Participants that selected a current gender identity of Male or Transman were combined under Transman and those that selected Female or Transwoman were combined under Transwoman. Individual participants that selected a current gender identity of Non-binary, Gender Queer, or Other were combined under the All Others category.

Table 13

Means, Standard Deviations, and ANOVA Results for the Gender Minority Stress and Resilience. Identity Concealment, and Intimacy Variable by Current Gender Identity

	Current Gender Identity						
	M(*SD*)	*M*(*SD*)	*M(SD)*	*M*(*SD*)	*F*	*df*	*Partial* η^2
Discrimination	4.9(0.3)	4.4(1.4)	4.6(1.4)	4.7(0.9)	2.52	(2,96)	.050
Rejection	5.8(0.5)	5.0(1.7)	5.4(1.5)	5.5(1.1)	3.37*	(2,96)	.066
Victimization	5.9(0.4)	5.5(1.5)	5.6(1.4)	5.8(1.0)	1.87	(2,96)	.038
Non-Affirmation	11.7(7.1)	15.9(5.4)	18.3(4.7)	14.1(6.9)	10.30***	(2,94)	.180
Internalized Transphobia	12.9(7.7)	13.2(5.8)	12.1(7.3)	12.7(7.3)	0.13	(2,92)	.003
Pride	14.0(7.0)	17.3(6.4)	17.3(6.0)	15.4(6.8)	2.93	(2,94)	.059
Community Connectedness	12.2(4.1)	12.8(4.5)	12.1(3.6)	12.2(4.0)	0.15	(2,95)	.003
Negative Expectations	23.7(7.4)	25.9(7.3)	23.1(8.2)	23.9(7.6)	0.66	(2,91)	.014
Nondisclosure	14.2(5.0)	13.4(3.9)	10.9(5.0)	13.2(5.0)	3.58*	(2,88)	.075
Intimacy	23.0(8.1)	24.9(6.8)	22.6(9.1)	23.2(8.2)	0.40	(2,95)	.008
Identity Concealment	94.2(18.7)	87.5(23.3)	85.921.3)	91.1(20.3)	1.67	(2,92)	.035

Note. Participants that selected a current gender identity of Male or Transman were combined under Transman and those that selected Female or Transwoman were combined under Transwoman. Individual participants that selected a current gender identity of Non-binary, Gender Queer, or Other were combined under the All Others category. Transman *N*= 53-57, Transwoman *N*= 14-16, All Others *N*= 23-26.

*$p \leq .05$. **$p \leq .01$. ***$p \leq .001$.

Table 14

Means, Standard Deviations, t-Test Results, and Effect Sizes for Anxiety, Depression, and Life Satisfaction by Education

		N	*M(SD)*	*t*	*df*	*p*	*d*
Anxiety	Some College or Less	58	19.6(5.7)	-0.34	93	.736	.070
	College or Higher	37	11.0(6.3)				
Depression	Some College or Less	59	12.5(6.3)	0.36	96	.720	.072
	College or Higher	39	12.0(7.9)				
Life Satisfaction	Some College or Less	60	17.3(7.1)	-2.03	96	.045	.419
	College or Higher	38	20.4(7.5)				

Table 15

Means, Standard Deviations, t-Test Results, and Effect Sizes for Gender Minority Stress and Resilience, Identity Concealment, and Intimacy Variables by Education Level

		N	*M(SD)*	*t*	*df*	*p*	*d*
Discrimination	Some College or less	60	4.8 (0.9)	0.25	97	.800	.052
	College or Higher	39	4.7 (0.9)				
Rejection	Some College or Less	60	5.5 (1.2)	-0.39	97	.696	.083
	College or Higher	39	5.6 (0.9)				
Victimization	Some College or Less	60	5.8 (1.1)	-0.06	97	.955	.012
	College or Higher	39	5.8 (0.8)				
Non-affirmation	Some College or Less	60	14.2 (7.1)	0.12	95	.908	.024
	College or Higher	37	14.0 (6.6)				
Internalized Transphobia	Some College or Less	58	13.6 (7.2)	1.50	93	.137	.316
	College or Higher	37	11.3 (7.2)				
Pride	Some College or Less	59	14.7 (6.9)	-1.37	95	.175	.286
	College or Higher	38	16.6 (6.4)				
Community Connectedness	Some College or Less	60	12.4 (4.0)	0.53	96	.596	.110
	College or Higher	38	12.0 (4.1)				
Negative Expectations	Some College or Less	56	24.1 (7.9)	0.34	92	.734	.072
	College or Higher	38	23.5 (7.3)				
Nondisclosure	Some College or Less	54	12.9 (5.7)	-0.82	89	.413	.182
	College or Higher	37	13.7 (3.8)				
Intimacy	Some College or Less	59	23.1 (8.7)	-0.26	96	.797	.054
	College or Higher	39	23.5 (7.4)				
Identity Concealment	Some College or Less	57	91.2(20.7)	0.07	93	.943	.015
	College or Higher	38	90.9(20.0)				

Table 16

Means, Standard Deviations, t-Test Results, and Effect Sizes for Anxiety, Depression, and Life Satisfaction by Income Level

		N	*M(SD)*	*t*	*df*	*p*	*d*
Anxiety	$25,000 and under	52	11.2(5.7)	0.83	93	.409	.171
	$25,001 and over	43	10.2(6.1)				
Depression	$25,000 and under	54	13.7(6.4)	2.35	96	.021	.475
	$25,001 and over	44	10.5(7.2)				
Life Satisfaction	$25,000 and under	55	17.1(7.3)	-2.15	96	.034	.438
	$25,001 and over	43	20.3(7.2)				

Table 17

Means and Standard Deviations, t-Test Results, and Effect Sizes for Gender Minority Stress and Resilience, Identity Concealment, and Intimacy Variables by Income

		N	*Mean(SD)*	*t*	*df*	*p*	*d*
Discrimination	$25,000 and under	55	4.7 (1.0)	-0.46	97	.648	.094
	$25,001 and over	44	4.8 (0.8)				
Rejection	$25,000 and under	55	5.5 (1.3)	-0.44	97	.658	.092
	$25,001 and over	44	5.6 (0.9)				
Victimization	$25,000 and under	55	5.7 (1.1)	-0.48	97	.633	.099
	$25,001 and over	44	5.8 (0.7)				
Non-affirmation	$25,000 and under	55	13.4 (7.1)	-1.16	95	.251	.238
	$25,001 and over	42	15.0 (6.5)				
Internalized Transphobia	$25,000 and under	53	13.6 (7.7)	1.29	93	.202	.268
	$25,001 and over	42	11.6 (6.6)				
Pride	$25,000 and under	54	14.7 (7.5)	-1.07	95	.290	.221
	$25,001 and over	43	16.2 (5.7)				
Community Connectedness	$25,000 and under	55	12.8 (3.9)	1.67	96	.098	.339
	$25,001 and over	43	11.5 (4.0)				
Negative Expectations	$25,000 and under	50	24.8 (8.3)	1.30	92	.198	.270
	$25,001 and over	44	22.8 (6.5)				
Nondisclosure	$25,000 and under	49	13.3 (5.8)	0.16	89	.875	.034
	$25,001 and over	42	13.1 (4.0)				
Intimacy	$25,000 and under	54	23.6 (8.5)	0.57	96	.572	.116
	$25,001 and over	44	22.7 (7.8)				
Identity Concealment	$25,000 and under	53	92.4(19.8)	0.73	93	.465	.151
	$25,001 and over	42	89.3(21.1)				

Table 18

Means, Standard Deviations, t-Test Results, and Effect Sizes for Anxiety, Depression, and Life Satisfaction by Relationship Status

		N	*M(SD)*	*t*	*df*	*p*	*d*
Anxiety	Single	33	10.7(6.3)	-0.81	92	.936	.017
	In a Relationship	61	10.8(5.8)				
Depression	Single	36	12.2(7.2)	-0.09	95	.925	.019
	In a Relationship	61	12.4(6.9)				
Life Satisfaction	Single	35	16.5(7.2)	-2.04	95	.044	.432
	In a Relationship	62	19.6(7.3)				

Note. Single participants included individuals that selected Single and interested in dating someone and Single but not interested in dating. Participants in a relationship included those that selected Dating someone, Married, Living together but not married, and polyamorous.

Table 19

Means, Standard Deviations, t-Test Results, and Effect Sizes for Gender Minority Stress and Resilience, Identity Concealment, and Intimacy Variables by Relationship Status

		N	*M(SD)*	*t*	*df*	*p*	*d*
Discrimination	Single	36	4. 9(0.5)	1.17	96	.247	.266
	In a Relationship	62	4.7 (1.1)				
Rejection	Single	36	5.7 (0.8)	1.23	96	.221	.273
	In a Relationship	62	5.4 (1.3)				
Victimization	Single	36	5.9 (0.5)	0.79	96	.433	.179
	In a Relationship	62	5.7 (1.2)				
Non-affirmation	Single	36	14.5 (6.8)	0.53	94	.598	.112
	In a Relationship	60	13.7 (7.0)				
Internalized Transphobia	Single	36	13.6 (7.2)	0.95	92	.347	.201
	In a Relationship	58	12.2 (7.4)				
Pride	Single	36	15.2 (6.5)	-0.19	94	.850	.040
	In a Relationship	60	15.5 (7.0)				
Community Connectedness	Single	36	12.7 (3.3)	0.66	95	.509	.144
	In a Relationship	61	12.1 (4.3)				
Negative Expectations	Single	33	23.6 (9.0)	-0.43	91	.671	.088
	In a Relationship	60	24.3 (6.5)				
Nondisclosure	Single	33	12.9 (4.4)	-0.52	88	.601	.117
	In a Relationship	57	13.5 (5.3)				
Intimacy	Single	36	19.8 (8.5)	-3.40	95	.001	.700
	In a Relationship	61	25.3 (7.3)				
Identity Concealment	Single	35	90.6(20.0)	-0.31	92	.754	.067
	In a Relationship	59	91.9(20.2)				

Note. Single participants included individuals that selected Single and interested in dating someone and Single but not interested in dating. Participants in a relationship included those that selected Dating someone, Married, Living together but not married, and polyamorous.

APPENDIX A

DEMOGRAPHICS

1. What is your age? _____ years

2. Year in School:
    a. Less than a high school diploma
    b. High School Diploma
    c. Some College
    d. College Diploma
    e. Some Graduate Studies
    f. Graduate Degree (e.g. Masters, PhD., etc.)

3. Relationship Status:
    a. Single and interested in dating someone
    b. Single but not interested in dating someone
    c. Dating Someone
    d. Married
    e. Separated
    f. Divorced
    g. Widowed
    h. Living together but not married
    i. Polyamorous

4. Which of the following race or ethnic categories describes you the best?
    a. White/Caucasian
    b. Hispanic/Latino(a)
    c. Asian/Asian American
    d. Black/African American
    e. Native American/American Indian
    f. Middle Eastern
    g. Multiracial (please specify) _____
    h. Other (please specify) _____

5. What gender were you assigned at birth?
    a. Male
    b. Female

6. What is your current gender identity?
    a. Male
    b. Female
    c. Transwoman
    d. Transman
    e. Non-binary
    f. Gender Queer

g. Other (please specify) _____

7. Please explain what your gender means to you: _____

8. How would you identify your sexual orientation?
    a. Heterosexual
    b. Lesbian
    c. Gay
    d. Bisexual
    e. Asexual
    f. Other (please specify) _____

9. Income Level
    a. 0-$25,000
    b. $25,001- $50,000
    c. $50,001-$75,000
    d. $75,001-$100,000
    e. $100,001 and above.

10. My personal pronouns are:
    a. He/Him/His
    b. She/Her/Hers
    c. They/Them/Theirs
    d. Ze/Zer/Zis
    e. Other (please explain) _____

11. What steps have you taken to affirm your gender identity and for how long? (select all that apply)
    a. Hormones
        i. How long?_____
    b. Surgery
        i. How long?_____
    c. gender markers
        i. How long?_____
    d. name change
        i. How long? _____

12. I currently have a strong support system.
    a. Strongly disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree

APPENDIX B

THE GENDER MINORITY STRESS AND RESILIENCE MEASURE

GENDER-RELATED DISCRMINATION, REJECTION, AND VICTIMIZATION SUBSCALES

Never	Yes, before age 18	Yes, after age 18	Yes, in the past year

Please check all that apply (for example, you may check both *after the age of 18* and *in the past year* columns if both are true). In this survey gender expression means how masculine/feminine/androgynous one appears to the world based on many factors such as mannerisms, dress, personality, etc.

1. I have had difficulty getting medical or mental health treatment (transition-related or other) because of my gender identity or expression.
2. Because of my gender identity or expression, I have had difficulty finding a bathroom to use when I am out in public.
3. I have experienced difficulty getting identity documents that match my gender identity.
4. I have had difficulty finding housing or staying in housing because of my gender identity or expression.
5. I have had difficulty finding employment or keeping employment, or have been denied promotion because of my gender identity or expression.
6. I have had difficulty finding a partner or have had a relationship end because of my gender identity or expression.
7. I have been rejected or made to feel unwelcome by a religious community because of my gender identity or expression.
8. I have been rejected by or made to feel unwelcome in my ethnic/racial community because of my gender identity or expression.
9. I have been rejected or distanced from friends because of my gender identity or expression.
10. I have been rejected at school or work because of my gender identity or expression.
11. I have been rejected or distanced from family because of my gender identity or expression.
12. I have been verbally harassed or teased because of my gender identity or expression. (For example, being called “it”)
13. I have been threatened with being outed or blackmailed because of my gender identity or expression.
14. I have had my personal property damaged because of my gender identity or expression.
15. I have been threatened with physical harm because of my gender identity or expression.
16. I have been pushed, shoved, hit, or had something thrown at me because of my gender identity or expression.
17. I have had sexual contact with someone against my will because of my gender identity or expression.

APPENDIX C

THE GENDER MINORITY STRESS AND RESILIENCE MEASURE

NON-AFFIRMATION OF GENDER IDENTITY, INTERNALIZED TRANSPHOBIA, PRIDE,

AND COMMUNITY CONNECTEDNESS SUSBSCALES

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Please indicate how much you agree or disagree with the following statements.

1. I have to repeatedly explain my gender identity to people or correct the pronouns people use.
2. I have difficulty being perceived as my gender.
3. I have to work hard for people to see my gender accurately.
4. I have to be “hypermasculine” or “hyperfeminine” in order for people to accept my gender.
5. People don’t respect my gender identity because of my appearance or body.
6. People don’t understand me because they don’t see my gender as I do.
7. I resent my gender identity or expression.
8. My gender identity or expression makes me feel like a freak.
9. When I think of my gender identity or expression, I feel depressed.
10. When I think about my gender identity or expression, I feel unhappy.
11. Because of my gender identity or expression, I feel like an outcast.
12. I often ask myself: Why can’t my gender identity or expression be normal?
13. I feel that my gender identity or expression is embarrassing.
14. I envy people who do not have a gender identity or expression like mine.
15. My gender identity or expression makes me feel special and unique.
16. It is okay for me to have people know that my gender identity is different from my sex assigned at birth.
17. I have no problem talking about my gender identity and gender history to almost anyone.
18. It is a gift that my gender identity is different from my sex assigned at birth.
19. I am like other people but I am also special because my gender identity is different from my sex assigned at birth.
20. I am proud to be a person whose gender identity is different from my sex assigned at birth.
21. I am comfortable revealing to others that my gender identity is different from my sx assigned at birth.
22. I’d rather have people know everything and accept me with my gender identity and gender history.
23. I feel part of a community of people who share my gender identity.

24. I feel connected to other people who share my gender identity.
25. When interacting with members of the community that shares my gender identity, I feel like I belong.
26. I'm not like other people who share my gender identity.
27. I feel isolated and separate from other people who share my gender identity.

APPENDIX D

THE GENDER MINORITY STRESS AND RESILIENCE MEASURE

NEGATIVE EXPECTATION FOR THE FUTURE AND NONDISCLOSURE SUBSCALES

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Question to determine appropriate wording for items regarding negative expectations for the future and nondisclosure:
Do you currently live in your affirmed gender all or almost all of the time? (Your affirmed gender is the one you see as accurate for yourself.)

1. Yes, I live in my affirmed gender most or all of the time.
2. No, I don't live in my affirmed gender most or all of the time.

If *Yes*: use "history" in items below.
If *No*: use "identity" in times below.

1. If I express my gender IDENTITY/HISTORY, others wouldn't accept me.
2. If I express my gender IDENTITY/HISTORY, employers would not hire me.
3. If I express my gender IDENTITY/HISTORY, people would think I am mentally ill or "crazy."
4. If I express my gender IDENTITY/HISTORY, people would think I am disgusting or sinful.
5. If I express my gender IDENTITY/HISTORY, most people would think less of me.
6. If I express my gender IDENTITY/HISTORY, most people would look down on me.
7. If I express my gender IDENTITY/HISTORY, I could be a victim of crime or violence.
8. If I express my gender IDENTITY/HISTORY, I could be killed and would fear for my life.
9. If I express my gender IDENTITY/HISTORY, I could be arrested or harassed by police.
10. If I express my gender IDENTITY/HISTORY, I could be denied good medical care.
11. Because I don't want others to know my gender IDENTITY/HISTORY, I don't talk about certain experiences from my past or change parts of what I will tell people.
12. Because I don't want others to know my gender IDENTITY/HISTORY, I modify my way of speaking.
13. Because I don't want others to know my gender IDENTITY/HISTORY, I pay special attention to the way I dress or groom myself.
14. Because I don't want others to know my gender IDENTITY/HISTORY, I avoid exposing my body, such as wearing a bathing suit or nudity in locker rooms.
15. Because I don't want others to know my gender IDENTITY/HISTORY, I change the way I walk, gesture, sit, or stand.

APPENDIX E

THE DAILY HETEROSEXIST EXPERIENCES

THE FAMILY OF ORIGIN SUBSCALE

0=Did not happen/not applicable to me.
1=It happened, and it bothered me NOT AT ALL.
2=It happened, and it bothered me A LITTLE BIT.
3=It happened, and it bothered me MODERATELY.
4=It happened, and it bothered me QUITE A BIT.
5=It happened, and it bothered me EXTREMELY.

How much have the following problems distressed or bothered you during the past 12 months?

1. Family members not accepting your partner as part of the family.
2. Your family avoiding talking about your transgender identity.
3. Being rejected by your father for being transgender.
4. Being rejected by your mother for being transgender.
5. Being rejected by a sibling or siblings because you are transgender.
6. Being rejected by other relatives because you are transgender.

APPENDIX F

TRANSGENDER POSITIVE IDENTITY MEASURE

1	2	3	4	5	6	7
Strongly Disagree	Somewhat Disagree	Disagree	Neutral	Agree	Somewhat Agree	Strongly Agree

Please indicate how strongly you agree or disagree with the following statements.

1. My gender identity allows me to feel free to explore different experiences of physical intimacy with a partner.
2. My gender identity allows me to be closer to my intimate partner.
3. My gender identity helps me to communicate better with my partner.
4. My gender identity allows me to understand my sexual partner better.
5. My gender identity allows me to explore new ways of having romantic relationships instead of following typical “heterosexual” patterns.

APPENDIX G

IDENTITY CONCEALMENT MEASURE

1	2	3	4	5
None of the Time	A Little of the Time	Some of the Time	Most of the Time	All of the Time

Please indicate how often you experience the following reactions.

1. My transgender identity concealment is a source of stress.
2. I worry about what others would say and I fear for my safety.
3. I cannot relax and I am anxious that something could happen to me.
4. It feels like I am living a double-life and that I am lying to myself and others.
5. I feel a lot of anger and it is frustrating to hide who I am.
6. I experience a lot of sadness and it makes me feel like something is wrong with me.
7. It is tiring and exhausting to conceal my identity and I usually feel drained at the end of the day.
8. Acknowledging my gender could burden others and I do not want to put others in an uncomfortable position.
9. I usually have to hide my gender at work.
10. I conceal my gender around family because of the negative comments and that was just part of my upbringing and what I learned to do.
11. I choose to conceal my gender identity in any type of religious setting or when I travel through a more conservative state.
12. I choose to conceal my gender identity in situations where it is not worth it to come out. (or …choose one of the two???) I choose to conceal my gender identity when I do not want to bring the focus on myself.
13. I might have to hide who I am almost anywhere I go even if I am just outside walking down the street.
14. I will bind my breasts or pack to give myself a bulge.
15. My birth name is no longer me.
16. I will change or alter stories from my childhood.
17. When others know about your past, it can invalidate who you are and how you identify.
18. My birth name is associated with the past and the person from the past is different from who I am now.
19. Passing is incredibly important and it is a privilege that not everyone has.
20. Passing increases safety.
21. Hormones help me to pass well and are essential to passing in public.
22. Passing increases feeling good about yourself and reduce some of the dysphoria.
23. I am no longer concerned with others' perceptions of me and I have become comfortable with who I am.
24. I felt very vulnerable in the beginning and I feared more for my safety earlier on when I did not pass.
25. Not passing increases the chance of experiencing violence.

26. If I do not pass, I could lose my job.
27. I would feel depressed or suicidal if I did not pass.
28. If I did not pass it would increase my dysphoria.
29. If I did not pass life would be more difficult and I just would not fit in anywhere.

APPENDIX H

RELATIONSHIP FUNCTION INVENTORY

EMOTIONAL, FRIENDSHIP, AND PERSONAL GROWTH SUBSCALES

1	2	3	4	5	6	7
Strongly Disagree	Somewhat Disagree	Disagree	Neutral	Agree	Somewhat Agree	Strongly Agree

Please indicate how strongly you agree or disagree with the following statements.

Work

1. My coworkers help me cope with stress.
2. My coworkers allow me to vent my frustration.
3. My coworkers help me release tension.
4. My coworkers are my friends.
5. I spend time with my coworkers outside of work.
6. My relationships with my coworkers are more than just work relationships.
7. My coworkers help me grow and develop as a human being.
8. My coworkers push me to become a better person.

Academic

9. My peers help(ed) me cope with stress.
10. My peers allow(ed) me to vent my frustration.
11. My peers help(ed) me release tension.
12. My peers are my friends.
13. I spend(t) time with my peers outside of school.
14. My relationships with my peers are (were) more than just school relationships.
15. My peers help(ed) me grow and develop as a human being.
16. My peers push(ed) me to become a better person.
17. My teachers help(ed) me cope with stress.
18. My teachers allow(ed) me to vent my frustration.
19. My teachers help(ed) me release tension.
20. My teachers are (were) my friends.
21. I spend(t) time with my teachers outside of school.
22. My relationships with my teachers are (were) more than just school relationships.
23. My teachers help(ed) me grow and develop as a human being.
24. My teachers push(ed) me to become a better person.

APPENDIX I

SATISFACTION WITH LIFE SCALE

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree

Below are five statements with which you may agree or disagree. Using the scale above, indicate your agreement with each item. Please be open and honest in your responding.

1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with life.
4. So far I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.

APPENDIX J

GENERALIZED ANXIETY DISORDER (GAD-7)

0	1	2	3
Not at all	Several days	More than half the days	Nearly every day

Over the **last 2 weeks,** how often have you been bothered by the following problems?

1. Feeling nervous, anxious or on edge.
2. Not being able to stop or control worrying.
3. Worrying too much about different things.
4. Trouble relaxing.
5. Being so restless that it is hard to sit still.
6. Becoming easily annoyed or irritable.
7. Feeling afraid as if something awful might happen.

APPENDIX K

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

0	1	2	3
Not at all	Several days	More than half the days	Nearly every day

Over the **last 2 weeks**, how often have you been bothered by any of the following problems?

1. Little interest or pleasure in doing things?
2. Feeling down, depressed, or hopeless?
3. Trouble falling or staying asleep, or sleeping too much?
4. Feeling tired or having little energy?
5. Poor appetite or overeating?
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down?
7. Trouble concentrating on things, such as reading the newspaper or watching television?
8. Moving or speaking so slowly that other people could have noticed? Or the opposite--- being so fidgety or restless that you have been moving around a lot more than usual?
9. Thoughts that you would be better off dead or of hurting yourself in some way?

APPENDIX L

INFORMED CONSENT TO PARTICIPATE IN RESEARCH

INDIANA STATE UNIVERSITY

THE PSYCHOLOGICAL AND PHYSICAL WELL-BEING OF TRANSGENDER PEOPLE

You are being invited to participate in a research study. This study aims to investigate the associations between social support, minority stress and stigma, and the psychological well-being and life satisfaction of transgender people. This document will help you decide if you want to participate in this research by providing information about the study and what you are asked to do. You will be asked to complete an anonymous online survey about support from your family, intimate partners and friends, co-workers and supervisors, and academic settings, as well as your psychological health.

One reason you might want to participate in this research is that you will be able to share your experiences as a transgender person. More specifically, information about your experiences with social support and the stressors you may endure as a member of a group that is often discriminated against could help clinicians provide assistance to maintain and/or improve the psychological well-being of transgender people. In addition, another reason you may want to participate in this study is that you might learn more about your past and current experiences as a transgender person and how those experiences have influenced or may influence your psychological well-being. One reason you might not want to participate in this research includes distress you may feel when recalling interactions with family, friends, intimate partners, co-workers, supervisors, academic peers and teachers. Additionally, exploring feelings and experiences related to discrimination and stigma may be difficult and painful.

If you volunteer to participate in this study, you will click on a link below that says "Agree." You will then be routed to an Indiana State University website where you will be asked to complete several questionnaires related to background characteristics (e.g., age, gender assigned at birth, gender identity, sexual orientation, income level, pronoun preference, steps taken to affirm gender identity, educational level, race/ethnicity, and relationship status); perceived support from family, friends and intimate partners, co-workers, and academic peers and teachers; experiences with discrimination; and psychological health and life satisfaction. Completion of the surveys should take about 45 minutes. After you complete the survey you will have the opportunity to enter a drawing for a $50 Visa gift card. If you decide to participate in the drawing you will be directed to a link that is separate from the study where you will provide your email address. Your chances of being selected for the gift card are based the number of people that decide to participate in the drawing. Based on our best estimates the probability that you will be selected to receive the card may range from about 5% to 10%. You have been asked to participate in this research because you are over the age of 18-years old and identify as having a gender that is different from the gender assigned at birth.

The choice to participate or not is yours; participation is entirely voluntary. You can decline to complete the online survey or withdraw at any time. If you decide not to participate, to decline some activities, or withdraw, you will not lose any benefits which you may otherwise be entitled to receive.

Every effort will be made to protect your confidentiality through the use of an anonymous online survey. No identifying information will be obtained on the surveys, such as name, student identification number, birth date, or other personal identification. All data will be stored on a password protected computer hard drive and thumb drive and only the researchers will have access to the data. If you decide to participate in the drawing, your email address will be deleted after the drawing is completed.

There are some potential risks to this study. These include the possibility that you may experience some mild anxiety when completing some of the questions due to examining your own attitudes. For example, some of the items ask about prior negative sexual experiences you may have encountered because of your gender identity. An additional risk is that anonymity cannot be guaranteed over the internet. Every precaution has been taken to reduce the risk, and risks of participation are minimal and not expected to be greater than what you encounter in everyday activities.

It is unlikely that you will benefit directly by participating in this study. However, the research results may benefit clinicians and others who work with transgender people by providing information on what factors contribute to their psychological well-being. In addition, the results might help inform the development of workplace and academic policies to support and nurture transgender employees and students.

If you have any questions, please contact the principal investigator, Charlene Johnson, Department of Psychology, Indiana State University, Terre Haute, IN 47809 at (812) 236-8445 or cpopejoy@sycamores.indstate.edu. You can also contact the faculty sponsor, Dr. Veanne Anderson, Department of Psychology, Indiana State University, Terre Haute, IN 47809 at (812) 237-2459 or veanne.anderson@indstate.edu.

If you have any questions about your rights as a research subject or if you feel you have been placed at risk, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-3088 or by email at irb@indstate.edu.

Please print a copy of this form for your records and click “Agree” below to begin the study. If you select “Disagree,” then you will automatically exit the survey and be unable to complete it in the future.

Agree

Disagree

APPENDIX M

DEBRIEFING

Thank you for participating in this study. In this study we are interested in gaining a better understanding of the experiences that individuals face when transitioning to a gender that is different than the gender that was assigned to them at birth. We are particularly interested in gaining a better understanding of the factors that may help promote better psychological health. Previous research indicates that individuals who receive more support and acceptance as they transition are less likely to suffer with depression, anxiety, substance abuse, and thoughts of suicide.

If you experience any distress as a result of participating in this study, you can access psychological services at the University's Student Counseling Center (812-237-3939) or the Psychology Clinic in Root Hall (812-237-3317). Participants not attending Indiana State University can seek support through these online resources: **https://www.outcarehealth.org/** or **http://www.mentalhealthamerica.net/** or **https://transequality.org/additional-help**.

If you have any questions or if you are interested in the results of the study, please contact Charlene Johnson at 812-236-8445 or email cpopejoy@sycamores.indstate.edu. You can also contact Veanne N. Anderson, Department of Psychology at 812-237-2459 or email her at veanne.anderson@indstate.edu

Thank you for participating in this study. You now have an opportunity to enter a drawing to win a $50 Visa.com gift card. The gift card will be sent electronically via email, so if you would like to enter the drawing, you will need to provide an email address. The email addresses will be entered into a database that is separate from the database that contains responses to the questionnaires. None of your responses to the questionnaires will be connected to your email address.

At the end of the study, four email addresses will be randomly selected from the email database. If your email address is selected, you will be contacted via email and the gift card information will be sent to your email account. Your email address will not be given out to any other parties; as stated above, we will be contacting you directly to notify you of your winning, you will not be contacted by a third party. If you do not win, your email address will be deleted from the database and we will have no further contact with you. If you would like to participate in the Amazon.com gift card drawing, please click below to enter your email address. Thank you and good luck.