FACTORS ASSOCIATED WITH LOWERED LIKELIHOOD OF SUICIDAL IDEATION FOR TRANS AND NONBINARY INDIVIDUALS

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Abstract: It is estimated that approximately one million people die by suicide each year around the world (World Health Organization, 2014). However, it has been demonstrated that marginalized individuals experience higher rates of suicidality (Almeida et al., 2009), including transgender and nonbinary (TNB) individuals who have been found to have a suicide risk that ranges from 18% - 47% (Clements-Noelle et al., 2006; Maguen & Shipherd, 2010; Moody & Smith, 2013). A noted phenomenon within suicidality is the higher frequency of suicidal ideation than suicide attempts in the general public and among TNB folx (Borges et al., 2008; Herman et al., 2019). Previous research has primarily focused on risk factors to understand what might increase the risk of suicidality, but there is growing work focusing on protective factors for TNB individuals. The purpose of this study is to assess multiple protective factors for TNB individuals experiencing suicidal ideation through quantitative methodology. A total of $N = 95$ TNB participants were recruited to complete an online questionnaire. Participants reported their experiences with suicidal ideation (SI) as well as their endorsement of protective factors across eight different factors: correct use of pronouns and chosen name on legal documents, optimism, pride, body congruency, community connectedness, and perceived friend and family social support. A logistic regress was conducted to assess SI. The model was significant χ^2 (8, $N = 95$) = 17.45, $p = .026$ with correct chosen name on legal documents and community connectedness being significant factors. Implications and limitations to the study are discussed.

Keywords: suicide ideation, protective factors, transgender, nonbinary, gender identity

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CHAPTER I

INTRODUCTION

Suicide is ranked as the third-leading cause of death for young adults and adolescents (15-24 years old) in the United States (Centers for Disease Control and Prevention, 2011). According to the World Health Organization (WHO, 2014), an estimated one million people in the general public die by suicide around the world each year. There have been increasing efforts to better understand the various factors that relate to an individual's suicide risk; however, suicide prevention continues to persist as a difficult task as rates rise in the United States (Curtin, et al., 2016a).

Within the general population in the United States, there are a number of themes and variables that have been identified as suicide risk factors (e.g., substance use, psychiatric diagnosis, increased levels of aggressive behaviors, social isolation and loneliness, history of trauma and abuse, homelessness, and previous suicidal attempts; McCullumsmith et al., 2013; Mitchell et al., 2014). Binary gender differences also correlate with some suicide risk behaviors. For example, women were 1.8 times more likely to attempt suicide; whereas suicide rates are approximately 3 – 4 times higher among men in comparison to women, such that men died by suicide 3.88x more than women in 2020 (Garnett, et al., 2022).

Although suicide is a public health concern for the general public, there are even higher rates for individuals who experience oppression thus resulting in disproportionate rates of suicidality. A majority of underrepresented and underserved populations are some of the highest-risk groups for suicide (Almeida et al., 2009; Hottes et al., 2016). Specifically, for transgender and nonbinary (TNB) individuals, research has indicated suicide rates that range from 18% to 47% (Clements-Noelle et al., 2006; Grant et al., 2010; Maguen & Shipherd, 2010; Moody & Smith, 2013). In comparison, the general public has a suicide attempt rate of approximately 4.6 % (Maguen & Shipherd, 2010). The severe disparity indicates that further investigation is needed to better understand complex factors that would potentially relate to lower rates of suicidality for TNB individuals.

Given the heightened rates of suicide among TNB individuals, addressing possible protective factors of suicide can lead to better understanding of elements that lower the risk for suicide among TNB people. Overall, there is a continued lack of literature that addresses the active role of protective factors that buffer the effects of suicidality for the TNB community.

CHAPTER II

REVIEW OF LITERATURE

Suicidal Ideation and Suicidal Attempts

Suicidal ideation refers to suicidal thoughts, including contemplating or planning to end one's own life. Suicidal behavior includes behaviors and specific actions taken with the intention of ending life, which would include suicide attempts or deaths from suicide (Gosling et al., 2022). There have been several trends within suicidal behavior such as suicide attempts occurring more frequently than deaths from suicide; specifically, attempts occur 20 times more frequently than deaths from suicides (WHO, 2011). However, a more common phenomenon is higher rates of suicidal ideation than suicide attempts (Borges et al., 2008); therefore, not everyone who experiences suicidal ideation goes on to attempt suicide. Because only approximately one-third of individuals who have thought about suicide will progress to a suicide attempt, increasing attention has been paid to identifying factors which distinguish between these two groups (Glenn and Nock, 2014; Nock et al., 2013).

Protective Factors in General Public

Protective factors are understood to not simply be a lack of risk factors in an individual's life, nor are they the opposite of risk factors (Cha & Nock, 2008). Protective factors are aspects that tend to reduce the likelihood and vulnerability of suicidal

behavior and increase the likelihood of positive outcomes (Chehil & Kutcher, 2012; Eisenberg & Resnick, 2006; Evans et al., 2004). Furthermore, the interest in protective factors increased after observing that those with exposure to risk factors do not always continue to develop suicidal behaviors (Beautrais et al., 2005). A number of the models discuss the importance of protective factors to understand suicidality. Regarding suicidology research, the study and emphasis on protective factors is an understudied concept in comparison to the existing literature of suicide risk factors (de Beurs et al., 2019).

Emphasizing the importance of protective factors leads to an increased focus on resilience, rather than the overemphasis on the negativity of risk factors. Protective factors indicate that potential solutions to suicidality may be addressed by highlighting factors that increase one's sense of resiliency (Beautrais et al., 2005; Sher, 2019). Within the general adult population, there exists a range of potential protective factors such as, but not limited to, a confiding and supportive relationship (Chang et al., 2017), good coping and adaptive skills (Mirkovic et al., 2015), religious and/or spiritual values (Cole-Lewis et al., 2016; Gearing & Lizardi, 2008), and optimism (Hirsch et al., 2007; Tucker et al., 2013).

Although these protective factors have been identified as having a positive buffering effect on suicidal behaviors, researchers continue to call for integrative research that addresses multiple protective factors (Beautrais et al., 2005). Understanding suicidal phenomena in the general public has grown exponentially; however, there have been growing shifts to better understand suicidality among marginalized populations. It is

imperative to understand protective factors for those who are most at risk to better focus prevention efforts.

Minority Stress Model

A central theory of understanding potential contributions for the mental health disparities amongst underrepresented individuals is through Meyer's minority stress model (1995, 2003, 2015). Meyer highlighted that social stress builds on basic stress theory to include social environments and not just personal events that lead to mental and physical concerns (Meyer, 2003). Meyer elaborates on the concept of unique societal stressors minority individuals' experience and results in stigmatization (Meyer, 2003). Meyer (2015) clarifies that his original minority stress model was developed in the context of sexual orientation; however, the model also reflects gender identity.

Another significant component of Meyer's (2003, 2015) minority stress model is the inclusion of "sources of strength", such as social support and coping to ameliorate the negative outcomes of stress. This concept may otherwise be known as protective factors that can buffer the effects of the stressors (Meyer, 2015). Identifying and measuring diverse protective factors has become a principle undertaking in the rhetoric of suicide prevention literature (Cha & Nock, 2008; Eisenberg & Resnick, 2006). Protective factors can be internal and/or external aspects of defending against and buffering suicidal behavior that can lower the risk of suicidality (Meyer, 2015; Cogan et al., 2020). Thus, the minority stress model (Meyer, 2003) is an important explanatory mechanism to understand the unique stress factors and protective factors for individuals from marginalized groups.

The impact of these minority stressors is hypothesized to be lessened by individual resilience and protective factors, such as personal qualities and characteristics, in addition to community resilience, such as affirmation and accepting social networks and supports (Meyer, 2003; 2015). Although a minority status may come with minority stressors, it also has the opportunity to bring a sense of belongingness with others with shared minoritized identities which may result in validation and a more positive self-evaluation (Meyer, 2003; Schmitt et al., 2006).

Socioecological Model of Protective Factors

Bronfenbrenner's (1979) socioecological model provides an additional, and useful framework to conceptualize protective factors. Bronfenbrenner addresses protective factors within different levels: individual, relationship, community, and societal levels. The individual level may consist of factors such as personality, beliefs, etc. The relationship level (microsystem) involves external relationships such as with partners, family, peers, etc. The community level (mesosystem) consists of large networks such as schools, social organizations, similar identity-based communities, etc. Lastly, the societal level (macrosystem) includes protective factors within culture, religion, laws, etc.

Bronfenbrenner's socioecological model has typically been used within public health settings to understand protective factors among subgroups, such as those with marginalized sexuality (Armstrong et al., 2016). The socioecological model highlights the importance of each level and how they collectively impact one's well-being and health (Bronfenbrenner, 1979; Johns et al., 2019). This model can serve to help identify missing factors between levels to help direct future studies to improve interventions to address health concerns (Johns et al., 2019). Bronfenbrenner's model extends into the

exosystems and macrosystems, which are often factors outside of the individuals' control, as well as larger, more abstract levels such as legal, political, and attitudes and norms within a culture.

Suicide Among Lesbian, Gay, and Bisexual (LGB) Communities

Although suicide is a health concern for the general public, there are even higher rates for individuals who experience oppression thus resulting in disproportionate rates of suicidality. A majority of underrepresented and underserved populations are some of the highest-risk groups for suicide (Almeida et al., 2009; Hottes et al., 2016). Although sexuality differs from gender identity, it can be informative to review previous literature on LGB mental health and suicidality. Lesbian, gay, and bisexual (LGB) individuals and transgender communities often experience comparable forms of systemic and individual oppression which can result in similar stressors (Nagoshi et al., 2008). Previous literature has recorded rates of attempted suicides for Lesbian, Gay, Bisexual, Trans, Queer (LGBTQ+) youth anywhere from 14% to 42% (Almeida et al., 2009; McBee-Strayer & Rogers, 2002; Walls et al., 2008). Similar to general public patterns of suicidality, LGB populations report higher rates of suicidal ideation than suicide attempts.

Suicide Among TNB Communities

It is first important to define and understand the differences for some of the following terminology used throughout the literature review. It is imperative to distinguish that sexual orientation and gender identity are unique and different identity constructs that yield different experiences. Lesbian, gay, bisexual (LGB) refers to sexual orientation and the "T" stands for transgender which is referring to gender identity (Brill

& Pepper, 2008; Johnson, et al., 2013; Renn, 2007). Gender identity is one's internal sense of gender (Twist & de Graaf, 2019).

The term transgender can represent a number of gender identities and expressions (James et al., 2016). Transgender can also be considered an umbrella term for people whose gender identity, expression, or behavior is incongruent with their sex assigned at birth (Brill & Pepper, 2008; Lambda Legal, 2008; Lev, 2004, Renn, 2007). Transgender and nonbinary individuals can consist of a range of sexual orientations as some TNB individuals may simultaneously have marginalized gender identities as well as marginalized sexual identities, which can range in intersectional minority experiences and stressors.

Nonbinary can be considered a more common single term for individuals who identify outside of the gender binary (i.e., male, female). Other identities that exist within the nonbinary umbrella include gender queer, gender fluid, pangender, androgynous, agender; however, this is not an exhausted list (Richards et al., 2016; Singh et al., 2011). However, it is paramount to remember that in an emerging field of gender identity, gender identities often change, and one should continue to attend and use an individual's self-declared identity when undertaking clinical work and research.

Specifically, for TNB individuals, research has indicated suicide rates that range from 18% to 47% (Clements-Noelle et al., 2006; Grant et al., 2010; Maguen & Shipherd, 2010; Moody & Smith, 2013). In comparison, the general public has a suicide attempt rate of approximately 4.6 % (Maguen & Shipherd, 2010). The severe disparity indicates that further investigation is needed to better understand complex factors that would potentially relate to lower rates of suicidality for TNB individuals.

Suicidal Ideation and Suicide Attempts Among TNB Communities

Scarce literature exists understanding the phenomenon of moving from suicidal ideation to suicidal attempts in the general public, but there is even less information regarding TNB individuals. The Youth Risk Behavior Survey (YRBS) included a pilot item assessing transgender identity in 2017 and found that 44% of transgender participants reported seriously considering attempting suicide and 34% reported a suicide attempt (Johns et al., 2019). However, as this trend continues to be understood, there have been growing theories that posit potential reasons for the disproportionate rates of suicidal ideation and suicidal attempts.

Meyer's Minority Stress Model for TNB Communities

Meyer's (1995, 2003, 2015) minority stress model was foundational in understanding the different types of unique stressors that impact marginalized LGB individuals, resulting in disparate mental health differences. Meyer has also clarified that the minority stress model although originally created in the context of sexual orientation, also applies to gender identity (Meyer, 2015). As previously mentioned, a significant portion of the minority stress model emphasizes the role of resilience and protective factors, such as internal factors, individual coping, and social supports to buffer the effects of the stressors to reduce negative health outcomes (Meyer, 2015).

Thus, the impact of these minority stressors is hypothesized to be lessened by individual resilience, i.e., personal qualities and personality characteristics and community resilience, i.e., affirming/accepting social environments and social support (Meyer, 2003, 2015). Meyer (2015) further explains that one's gender identity has an impact on exposure, not only to minority stress, but also exposure to coping and

resilience opportunities, such as relationships within communities with minoritized gender identities. This group affiliation and sense of belonging allows minoritized individuals to evaluate themselves more in relation to individuals similar to them as opposed to members of dominant groups, thus bringing about validation and a more positive self-evaluation (Meyer, 2003; Schmitt et al., 2006).

Gender Minority Stress and Resilience Model (GMSR)

Most recently, Meyer's model was adapted to create the gender minority stress theory (GMSR; Testa et al., 2015), which looks at unique stressors, both distal and proximal, as well as protective factors for TNB individuals (Hendricks & Testa, 2012; Testa et al., 2015). Some of the distal stressors are similar to Meyer's model, such as experiencing discrimination, rejection, and victimization, but based on gender identity. However, the GMSR highlights TNB individuals' specific distal stressors, such as non-affirmation of gender-identity. GMSR also discusses proximal stressors, such as internalized 'transphobia' and negative expectations regarding gender identity and concealing authentic gender-identity. Similar to Meyer's minority stress model, GMSR includes protective factors including community connectedness, referring to the feeling of cohesion within TNB individuals marginalized gender community (Testa et al., 2015). The other protective factor presented in the GMSR is pride, referring to the feeling of acceptance and comfort with one's authentic gender-identity (Testa et al., 2015).

Previous research on the GMSR has demonstrated that the distal stressor of gender-based victimization is associated with increased risk for suicide, such that those who have experienced gender non-affirmation, such as denied access to bathrooms that align with their gender, are approximately 1.5 times more likely to attempt suicide than

TNB individuals who have not experienced gender non-affirmation (Seelman, 2016). Similar to trends in general suicidology research, the distal and proximal stressors in the GMSR are frequently studied while the protective factors in the GMSR have little to no research (Cogan et al., 2020). Therefore, continued research is needed to specifically understand the roles of the proposed proactive factors, community connectedness and pride, in relation to other protective factors and to suicidality at large.

Protective Factors Among TNB Populations

There is scarce research; however, a growing area of research is addressing protective factors for the TNB community. Although protective factors and resilience are important components of the minority stress model, little work has focused on factors that might serve to reduce the risk for poor mental health and suicide (Eisenberg et al., 2017; Johns et al., 2018). Some the identified protective factors are, but not limited to, feelings of acceptance, feeling valued, transitioning and/or hormone treatments, surgeries, family connectedness, acceptance of transgender identities, and friendships with other LGBTQ+ peers (Crosby et al., 2016; Bauer et al., 2015; Kozee et al., 2012; Moody, et al., 2015; Testa et al., 2015). However, there is growing evidence to support the claim that transgender individuals' have salient protective factors (Moody, et al., 2015; Testa, et al., 2015) against suicidality.

Preliminary research has been beneficial in identifying a number of protective factors against suicidality for TNB individuals. Given that previous research has demonstrated optimism (e.g., Moody & Smith, 2013), affirmation and transitioning (Budge et al., 2015; Crosby et al., 2016; Glynn et al., 2016; Moody et al., 2015; Scheim et al., 2020; Vaitses Fontanari et al., 2020) pride (Cogan et al., 2020; Meyer, 2003; Singh

et al., 2011; Testa et al., 2015), TNB community connection (Barr et al., 2016; Meyer, 2003; Pflum et al., 2015; Smith et al., 2018; Testa et al., 2015), body congruence (Kozee et al., 2012), social support (McConnell et al., 2016; Mood & Smith, 2013; Pflum et al., 2015; Trujillo et al., 2017), serve as potential protective factors, these aspects are hypothesized to buffer suicidality for TNB individuals. However, a gap exists, such that few studies have addressed these multiple protective factors uniquely for TNB communities.

Individual Level Protective Factor

Optimism. As previously stated, optimism has been a central protective factor for both cis and TNB individuals. However, in past research results yield mixed findings in assessing the role of optimism and suicidality, such that some studies have identified a significantly negative relationship between optimism and suicidality (Hirsch et al., 2007; Tucker et al., 2013) whereas others did not find a significant relationship between optimism and suicidality (Moody & Smith, 2013). The mixed empirical results suggest that optimism needs further analysis in TNB populations to better understand optimism as a protective factor.

Optimism continues to appear in suicidology literature, especially within LGBTQ+ populations as it is one of three protective factors in Rutter's (2008) model and suggests that individuals have favorable expectations for their future. Additionally, optimism is important to continue to evaluate among TNB populations as it is also an important factor in helping TNB individuals overcome adversities (Bry et al., 2017) and found to be a protective factor against suicidality (Moody & Smith, 2013; Moody et al., 2015).

Pride. Meyer (2003) initially suggests that a sense of pride in sexual orientation may serve as a protective factor against minority stress experienced by LGB individuals. As Meyer's minority stress model was applied by Testa et al. (2015) for TNB individuals, pride was included and found to be a protective factor. Overall, viewing one's gender identity in a positive manner is encompassed under the concept of pride (Testa et al., 2015) and there are multiple studies that have suggested that pride is conversely related to poor mental health outcomes (Bockting et al., 2013; Singh, 2013). Additionally, Brennan and colleagues (2017) found for TNB participants that their sense of pride was a negative predictor of suicide attempts. However, further exploration is needed to better understand how pride relates to suicidality and its relationship with other protective factors.

Body Congruence. An understudied, but important protective factor is the role of body congruence for TNB individuals within their TNB identity development (Kozee et al., 2012). Moody and colleagues (2015) also identified the importance of participants "becoming one's self, the person they were meant to be, and living authentically." Transfeminism, a movement born out of the intersectionality of being a transgender woman, posits that TNB individuals create their own identities based on authentic feelings within their own social environments (Corsani, 2007). Therefore, the feeling of genuine comfort by presenting one's self in an authentic expression has been termed 'congruence' or 'body congruence' (Kozee et al., 2012).

Kozee et al. (2012) created a measure that moved away from a binary understanding of transgender identity development by focusing on the authentic, diverse, and genuine expression of gender identity. Kozee et al. (2012) also found that higher levels of congruence were positively associated with life meaning and satisfaction, as

well as being negatively associated with depression more than life meaning. Kozee and colleagues' findings encourage further study on the role of body congruence among TNB populations in relation to suicidality.

Relationship Level Protective Factors

Social Support. Social support has been seen as an imperative protective factor, not only for the general public (e.g., Chioqueta & Stiles, 2007; Kleiman & Liu, 2013), but also for LGB individuals (e.g., Rutter, 2008; Watson et al., 2019) and for TNB individuals (McConnell et al., 2016; Moody et al, 2015; Trujillo et al., 2017). There are a growing number of studies that have examined the relationship between social support and suicidal behaviors (e.g., Miller et al., 2015) such that individuals with less social support are at greater risk of suicidality. Perceived emotional and social support from friends, parents, partner and family were significantly negatively associated with suicidal ideation and/or attempts (Kota et al., 2020; Shah et al., 2018; Treharne et al., 2020)

There are existing articles that have found social support from cis social supports, including friends and family, as being an important factor that is associated with higher levels of well-being among TNB individuals (Baser et al., 2016). Additionally, the Canadian trans PULSE Project found in a sample of trans individuals that social support specifically reduced suicide risk (Bauer, 2015).

Community Level Protective Factor

TNB Community Connectedness. Meyer (2003) also originally posited in the minority stress model that being connected and feeling a sense of belonging in a community is an important buffer against negative mental health outcomes and suicidality. There have been multiple studies that have echoed the importance of

connecting to a community with similar marginalized identities, especially for TNB individuals (Pflum et al., 2015; Singh, 2013; Singh et al., 2011). Too often LGBTQ+ individuals experience estrangement from their families due to their sexual orientation and/or their gender identity and will often seek support through members of their community (Bariola et al., 2015; Barr et al., 2016). This may be a more salient experience for TNB individuals to find a sense of belonging and connection as TNB individuals report feeling more alienated from mainstream culture (Singh et al., 2011).

Barr et al. (2016) was a foundational study that sought to understand TNB community connectedness by assessing the sense of belonging TNB individuals experienced in the TNB community. Barr et al.'s (2016) study found that community connectedness fully mediated a relationship between the strength of transgender identity and well-being. Therefore, a connection to the TNB community can serve as a protective factor and may suggest the type of connection could impact suicidal risk.

Societal Level Protective Factor

Affirmation and Transitioning. Although transitioning and affirmation literature is in its infancy, there are gender identity-related protective factors that appear to be important for TNB individuals. Gender affirmation is an interpersonal process, such that a TNB individual experiences social support and recognition for their gender identity and expression (Bockting, 2008; Nuttbrock et al., 2009). Gender affirmation has also been acknowledged in previous literature under different terminologies; 'gender construction' (Rodriguez-Madera and Toro-Alfonso 2005), 'transgender identity affirmation' (Nuttbrock et al., 2002), 'gender validation' (Nemoto et al., 2004).

However, it is important to note that gender affirmation is a multidimensional process that includes social affirmations, medical affirmations, and legal affirmation, and not all TNB people indicate that they want to physically and/or medically transition. Yet, for those who do desire to engage in medical transition treatments (i.e., hormones, surgeries), they report better mental health outcomes (de Vries et al., 2014; Moody et al., 2015; Olson-Kennedy & Warus, 2017). Vaitses et al. (2020) found for those who had access to medical affirmative interventions reported less anxiety and depressive symptoms. Previous research has also acknowledged individuals experiencing gender affirmation through correct pronoun use and chosen name use in various settings, including in social settings as well as on legal documents, such as a passport, driver's license, etc. (Russell et al., 2018). Furthermore, identity affirmation through the use of correct legal documentation has been associated with decreases in mental health concerns, specifically for suicidal ideation and attempts (Bauer, et al., 2015; Fontanari et al., 2020).

These protective factors were chosen to be the primary focus for the study due to alignment with three of the levels within Bronfenbrenner's ecological theory as well as internal sources highlighted in the minority stress model. Additionally, the connection-based protective factors were included as it overlapped theoretical support from Bronfenbrenner's model as well as the minority stress model. Lastly, protective factors identified in the GMSR were included due to relevance to the specified target population amongst TNB individuals. Overall, there appears to be a lack of empirical evidence that assess how multiple protective factors impact suicidality in general and even more so among TNB populations.

Current Study

Given the heightened rates of suicide among TNB individuals, addressing possible protective factors of suicide can lead to better understanding elements that lower the risk for suicide among TNB people. Overall, there is a continued lack of literature that addresses the active role of protective factors that buffer the effects of suicidality for the TNB community. The current literature suggests that correct use of pronouns and chosen name on legal documents, optimism, pride, body congruency, community connectedness, and social support may be protective factors that apply to TNB individuals. Additionally, due to highlighted trans-specific experiences (e.g., transphobia), there may be TNB-specific protective factors such as body congruence, community connectedness, and pride that have scarcely been studied as it relates to suicidality. It is important to identify the roles of protective factors in TNB individuals' suicidality to be able to best reduce the disproportionately high rates of suicidality in the TNB community.

The original proposal sought to understand the complex relationships amongst protective factors among TNB individuals to distinguish those who reported suicidal ideation from those who went on to attempt suicide. However, due to necessary changes due to low data response, as will be discussed, the current project was conducted to contribute additional information using a multi-theoretical understanding (i.e., minority stress model, socioecological, GSRM) to understand complex levels of potential protective factors that would lower the odds of experiencing suicidal ideation amongst TNB individuals.

The originally proposed research questions were as follows:

1. Will there be significant differences in predictive protective factors that distinguish TNB individuals with suicidal ideation from those who attempt suicide?
    a. *Hypothesis*: There will be a significant difference for TNB individuals who only endorse suicidal ideation than those who go on to attempt suicide.
2. Will the proposed structural equation model (Figure 1) confirm proposed theory that optimism, body congruence, pride, community connectedness, and social support from friends and family (collectively) predict suicidal ideation versus suicide attempts for TNB people?
    a. *Hypothesis*: The proposed SEM will yield sufficient goodness-of-fit indices such that I will fail to reject the proposed theoretical model, indicating that the proposed model is a statistically significant predictor of suicide behaviors and ideations in a TNB sample.

However, due to the changes needed to adequately respond to the gathered sample size, the new hypothesis consists as following:

1. Will there be significant protective factors, from various levels of the socioecological model, minority stress model, and GSMR, that will be associated with a lower likelihood of suicidal ideation?

a. *Hypothesis:* As correct use of pronouns and chosen name on legal documents, optimism, pride, body congruency, community connectedness, and social support

increase, there will be a significantly less likelihood that participants will report experiencing suicidal ideation

CHAPTER III

METHODOLOGY

Participants

Inclusion criteria for participants consisted of individuals who self-identify as transgender and/or nonbinary as well as being at least 18 years old. Efforts were in place to protect the participants' confidentiality, such as not requesting any personally identifying information, including IP addresses.

Sample Characteristics. The study recruited participants over the age of 18 who self-identified as transgender and/or nonbinary ($N = 95$). Convenience sampling and snowball methods were utilized for online platforms, such as various social media sites and networking platforms (i.e., Facebook, Instagram, Reddit, and Listservs). Participants' age ranged from 18 to 64 ($M = 31.96$, $SD = 11.15$). Participants were able to select multiple responses that represented their sexuality, religion, and race. Percentages are not listed for gender, sexuality, and religion as they total more than 100% due to participants being able to choose multiple responses that capture their identities (see Table 1, Table 2). For example, 45 participants identified as transgender, 30 participants identified as a transman, 17 participants identified as a transwoman, 36 participants identified as nonbinary, and 15 participants identified as genderqueer. In terms of sexuality, 15

participants identified as lesbian, 7 identified as gay, 29 identified as bisexual, 34 identified as queer, and 27 identified as pansexual.

The sample was comprised of mostly White participants (*n* = 83, 87.4%), 1.1% Native/First Nation (*n* = 1), 1.1% Asian/Pacific Islander (*n* = 1), 5.3% biracial/multiracial (*n* = 5), 1.1% Black (*n* = 1), 3.2% Hispanic/Latinx (*n* = 3), and 1.1% Other (*n* = 1). Regarding religious identity, 16 participants identified as Agnostic, 13 identified as Christian, 45 reported not having a religion, and 22 reported "Other" and wrote in examples of Atheist and Pagan/Wiccan.

Regarding household annual income, 24.2% of participants reported earning $0-$20,000 annually (*n* = 23), 41.1% reported earning $20,001-$55,000 (*n* = 39), 22.1% reported earning $55,001-$100,00 (*n* = 21), 12.6% reported earning $100,000 or more (*n* = 12). For education attainment 9.5% reported receiving a high school diploma/GED (*n* = 9) , 35.8% reported receiving some college (*n* = 34), 26.8% reported receiving a Bachelor's degree (*n* = 25), 3.2% reported receiving some graduate training (*n* = 3), 14.7% reported receiving a Master's degree (*n* = 14), 2.1% reported receiving a Doctorate/Graduate degree (*n* = 2). See Table 1 and Table 2 for further information regarding sample characteristics.

Procedures

An a priori power analysis using G*power (Faul & Erdfelder, 1998) was conducted to determine the appropriate number of participants for the originally proposed study. The power was set to .80 to increase the potential of acquiring significant results (Cohen, 1988) and the alpha level was set to .05. The power analysis suggested that a minimum of 125 subjects would be sufficient to gather statistical power for the proposed

analysis. Because the originally proposed analysis of structural equation modeling (SEM) requires an overall larger sample to obtain adequate power, this minimum sample number was increased. Weston and Gore (2006) suggest at least a minimum sample of 200 when conducting SEM; therefore, the goal sample was at least 200 participants.

Data was collected from August 2021 until May 2022 through various online platforms. However, due to low participant response rate with all original variables collected, the proposed pathways could not be appropriately assessed. Due to the low sample size, it would not be advisable to test this theory via SEM (Boomsma & Hoogland, 2001; Byrne, 2008). Therefore, a logistic regression was proposed as a sufficient and more appropriate analysis in relation to the response rate. Thus, an additional a priori power analysis was conducted to determine the sample size of participants needed, resulting in a recommendation of 107 participants. Participants completed an IRB-approved online survey that included the measures described below. A total of 208 people began the survey; participants were removed due to not completing at least 80% of a given measure (n = 53) and not meeting the first validity check (n = 57) or the second validity check (n = 3). A final sample of 95 remained.

Approval for this research study was gained through the doctoral committee and Oklahoma State University's Institutional Review Board (IRB). Modifications were made based on feedback from the committee and IRB. Counsel was continuously sought from the doctoral committee during the research process for necessary and responsive alterations.

The study was conducted through the online survey service, Qualtrics. The questionnaire contained an informed consent document that describes general aims of the

study, minor risks and benefits of the study, a reminder of voluntary participation and leaving at any point of the survey, and resources for participants. The questionnaire also included demographic information as well as additional measured variables. Randomization was used as a technique to minimize order bias; thus, participants received the independent variables and dependent variable questions in a random order. The typical time of completion was approximately 20 – 30 minutes. At the end of the survey all participants were presented with a page thanking them for their participation and explaining that as a token of appreciation for their participation, the participants could follow an additional link where they could submit their emails to be entered into a drawing for one of five $50 Visa gift cards. The separate link was to ensure participant anonymity, such that reported information would not be connected to their provided email for the gift card drawing. At the end of data collection, five participants who submitted their emails were randomly selected and sent a $50 Visa gift card.

Design

The present study utilized a correlational, cross-sectional design. The independent variables in the model consisted of correct use of pronouns and chosen name on legal documents, optimism, pride, community connectedness, body congruence, perceived social support from friends, and perceived social support from family. With the outcome variable consisting of suicidal ideation with a binary response of yes and no.

Measures (See Appendix D)

Demographic Information. A questionnaire asked participants demographic questions such as gender identity, sexual orientation, race/ethnicity, partnership status, age, highest level of education, current employment, household income, and religious

affiliation. As transgender identity encompasses multiple identities, there were 14 listed identities with an additional option for participants to write in their identity; participants could choose multiple options that represent their gender identity. Additionally, participants were able to select multiple responses that represented their sexuality, religion, and race.

Dependent Variable. Suicide risk, including suicidal ideation and suicide attempts, will be assessed by asking participants *Yes/No* formatted questions "Have you ever seriously thought about killing yourself?" and "How many times have you attempted to kill yourself?" which was converted into a binary response by any number of attempts marked as a "1" and zero attempts marked as a "0"as used in previous empirical studies (Johns et al., 2019; Scheim et al., 2020).

Legal Pronoun and Name Use. Participants were asked "what pronouns do you like to use for yourself?" followed by asking if their "legal records reflect your identity?" Similarly, participants were asked if "you have a chosen name different from the name you were given at birth?" followed by asking if their "legal records reflect your chosen name?" This research method was used in previous literature (i.e., Russell et al., 2018).

Optimism. The Life Orientation Test Revised (LOT-R; Scheier et al., 1994) was used to measure optimism. The LOT-R is comprised of 10 self-reported items, consisting of 3 positively worded statements, 3 negatively worded statements, and 4 filler statements. The LOT-R assesses participant's generalized level of optimism using a 5-point Likert-type scale that ranges from 0 (*Strongly Disagree*) to 4 (*Strongly Agree*). Some example statements include "In uncertain times, I usually expect the best", "Overall, I expect more good things to happen to me than bad", and some reverse scored

items including “If something can go wrong for me, it will”. The total score is obtained by the 6 primary items together. Summary scores range from 0 to 24 and higher scores indicate higher levels of generalized optimism.

The LOT-R has been distinguished from state optimism (Burke et al., 2000) and general happiness (Lyubomirsky & Lepper, 1999). The LOT-R has also demonstrated acceptable reliability with stable test-retest reliability across 4 months (r = .68), 12 months (r = .60), 24 months (r = .56), and 24 months (r = .79; Scheier et al., 1994). Coefficient alpha in the original study was .78 (Scheier et al., 1994). Internal consistency has been found in additional research with an alpha of .79 (Hirsch et al., 2007).

Pride. The Gender Minority Stress and Resilience Measure by Testa et al. (2015) was created to measure difficulties and protective factors for those whose gender identity is underrepresented. The GMSRM was developed from Meyer’s (2003) minority stress model to include TNB individuals. The GMRSM has nine subscales to measure different constructs, with seven assessing TNB stressors: Gender-Related Discrimination, Gender-Related Rejection, Gender-Related Victimization, Nonaffirmation of Gender Identity, Internalized Transphobia, Negative Expectations for Future Events, and Nondisclosure. The other two subscales assess the protective factors for TNB individuals: Pride and Community Connectedness.

The subscale for Pride is comprised of eight self-reported items measured on a 5-point Likert-type scale from 0 (*Strongly Disagree*) to 4 (*Strongly Agree*). The potential total score range is 0 to 32, with higher scores indicating higher levels of pride in TNB identity. Example statements consist of “my gender identity or expression makes me feel

special and unique", "I am proud to be a person whose gender identity is different from my sex assigned at birth".

The Pride subscale was found to be negatively associated with depression, anxiety, life stress, and perceived burdensomeness (Pflum et al., 2015; Shulman et al., 2017). The Pride subscale had an established coefficient alpha of .88 (Testa et al., 2015). The individual subscale resulted in good criterion validity, convergent validity, and discriminant validity (Testa et al., 2015).

Community Connectedness. The GMSRM has an additional subscale of Community Connectedness with a total of five self-report items measured on a 5-point Likert-type scale that ranges from 0 (*Strongly Disagree*) to 4 (*Strongly Agree*). The potential total score range is 0 to 20, with higher scores suggesting greater feelings of connectedness to the transgender community. Some example statements are "I feel part of a community of people who share my gender identity", "I feel connected to other people who share my gender identity", and "When interacting with members of the community that shares my gender identity, I feel like I belong". The Community Connectedness subscale has a reported coefficient alpha of .90 (Testa et al., 2015). The individual scale resulted in good criterion validity, convergent validity, and discriminant validity (Testa et al., 2015).

Body Congruence. Body congruence was measured with the Transgender Congruency Scale (TCS; Kozee et al., 2012). The TCS was developed to measure the level of congruence between gender identity and current gender expression. The TCS consists of 12 self-report items on a 5-point Likert-type scale that ranges from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). The TCS is comprised of two constructs: Appearance

Congruence and Gender Identity Acceptance. Appearance Congruence measures if the participant's physical appearance aligns with their wanted gender expression. Gender Identity acceptance measures the participant's acceptance of their gender expression and identity. The TCS can be assessed by using the two subscales individually or a total score can be used to assess overall body congruence with high scores indicating higher body congruence. Examples of statements for the Appearance Congruence scale is "my outward appearance represent my gender identity" and "I experience a sense of unity between my gender identity and my body" Examples of statements for the Gender Identity Acceptance scale is "I am happy that I have the gender identity that I do" and "I have accepted my gender identity".

The coefficient alpha for the total TCS has been demonstrated to be .92 (Kozee et al., 2012) and in recent research resulted in a coefficient alpha of .96 (Comiskey et al., 2020). The TCS reported good discriminant validity and construct validity (Kozee et al., 2012; McLemore, 2015) .

Social Support. Social support was measured with the Perceived Social Support Scale from Friends + Family (PSS-Fr + PSS-Fa; Procidano & Heller, 1983) which assesses participants' perceptions and experiences of relationships with friends (PSS-Fr) and family members (PSS-Fa) meeting their needs. The measurement contains two separate 20-item self-report subscales. The items are measured on a yes/no scale that range from 0 (*no*) to 1 (*yes*) and an option of (*I don't know*) is left un-scored. Example statements include "I rely on my friends for emotional support" and "My friends and I are very open about what we think about things" (PSS-Fr), and "There is a member of my family I could go to if I were just feeling down, without feeling funny about it later" and

"I have a deep sharing relationship with a number of members of my family" (PSS-Fa). The participant's responses are totaled with a value range of 0 - 20 for each scale with higher scores suggesting greater levels of perceived social support.

Internal consistency scores from past research resulted in moderate internal consistency scores of .85 for PSS-Fr and .87 for PSS-FA in Liu's study (2002). The coefficient alpha was found to be .88 for the PSS-Fr, and .90 for the PSS-Fa scale in the original study (Procidano & Heller, 1983).

Data Analysis

To evaluate the newly proposed hypothesis, a logistic regression was used to analyze significant contributing variables for participants who have experienced suicidal ideation. Preliminary analyses were conducted and are discussed. The independent variables include correct use of pronouns and chosen name on legal documents, optimism, pride, community connectedness, body congruence, and social support. The dependent variable is suicidal ideation with a binary response of "yes" or "no". Follow up descriptive analyses were conducted to assess percentage of participants that also experienced.

CHAPTER IV

RESULTS

Before testing the proposed logistic regression, data were cleaned, missing data were addressed, and the assumptions for a logistic regression were assessed. Participants who did not pass the two validity checks and complete at least 80% of a given measure were eliminated. Little's Missing Completely at Random (MCAR) test was then conducted to determine whether the remaining missing data were missing completely at random. The results of Little's MCAR determined that the missing data were not significant, suggesting that missing data were missing completely at random. The following are the number of missing data points that were replaced from each measured item for the final sample: there were no missing data points for suicidal ideation, no missing data for use of pronouns and chosen name on legal documents, no missing data for optimism, no missing data for body congruence, four missing data points for pride, one missing data point for community connectedness, 104 missing data for perceived friend support, and 96 missing data for perceived family support.

Tabachnick and Fidell (2013) suggest retaining the cases with missing data and performing a data replacement method; expectation maximization method was used to replace missing data. According to Tabachnick and Fiddell (2013), this method is

superior to other data replacement techniques (e.g., mean replacement) and is more efficient than other more complex techniques (e.g., multiple imputation).

Assessing Assumptions

Prior to testing our model, preliminary exploratory analyses were conducted to determine whether data met the assumptions of logistic regression (Tabachnick & Fidell, 2013). These assumptions include independence of errors, absence of multicollinearity, linearity in the logit, and absence of outliers or influential data points in the data. Results indicated that the assumptions of independence of errors was met. The multicollinearity assumption was assessed by examining the variance inflation factor (VIF). All VIF values were less than four (i.e., the largest variance inflation factor was 1.42), indicating that the assumption was met (Tabachnick & Fidell, 2013). Additionally, the linearity in the logit assumption was also met (i.e. none of the interaction terms that were created by taking the product of each continuous independent variable and its natural logarithm were significantly related to suicide ideation).

To determine whether there were any potential outliers or influential data points in the data, the standardized residuals, Cook's distance, DfBeta, and leverage values were examined. Results indicated that there were five multivariate outliers or influential cases in the data. However, because the model excluding outliers and influential cases did not have a better classification accuracy rate by 2% than the baseline model, the five cases were included in final analysis (Field, 2017).

Primary Analysis

For descriptive summary, of the total sample of 95 participants, 11 participants (11.58%) reported no suicidal ideation and no suicide attempts. 31 participants (32.63%)

reported suicidal ideation but no suicide attempts, and 53 participants (55.79%) reported experiencing suicidal ideation as well as at least one suicidal attempt.

After data cleaning, replacement, internal consistency, assumptions, and best analysis procedures were determined, a binary logistic regression analysis was conducted to determine whether participant's correct use of pronouns and chosen name on legal documents, optimism, body congruence, sense of pride, community connectedness, perceived social support from friends and family is associated to lower levels of suicidal ideation. Preliminary analyses indicated that, of the 95 participants who comprised the final sample of this study, 11 participants (11.6%) endorsed not experiencing suicidal ideation, whereas 84 participants (88.4%) did report experiencing suicidal ideation. The dependent variable, suicidal ideation, assessed whether participants ever seriously thought about killing themselves, coded as 0 = no, 1 = yes. See Table 3 and Table 4 for descriptive statistics and correlations of the study's variables.

The examination of the first block of the equation indicated that the model correctly classified 98.8% of the participants who thought about suicide and 18.2% of the participants who did not think about suicide. Thus, indicating the model better predicted those who thought about suicide than predicting those that did not think about suicide. The overall classification accuracy rate was 89.1%. The omnibus test of the model coefficients indicated that independent variables, as a whole, were significantly related to suicide ideation, χ^2 (8, N = 95) = 17.45, p = .026). Additionally, the Hosmer and Lemeshow test was not significant indicating a good model fit, χ^2 (8, N = 95) = 4.948, p = .763. There are a number of pseudo-R^2 values that have been proposed using this general logic, including the Cox and Snell (Cox & Snell, 1989; Maddala, 1983; Nagelkerke,

1991). At this point, there does not seem to be much agreement on which R-square approach is best (Menard, 2000). Thus, the reported R^2 values are Cox and Snell R^2 = .173, and Nagelkerke R^2 = .333. Table 5 presents unstandardized binary logistic regression coefficients, Wald statistics, and odds ratios (OR) along with 95% confidence intervals (CIs).

The examination of the odds ratios indicated that, after controlling for correct use of pronouns on legal documents, optimism, body congruence, sense of pride, perceived social support from friends and family, higher levels of correct use of chosen name on legal documents (OR = .100, p = .046, 95% *CI* [.010, .962]) and community connectedness (OR = .791, p = .047, 95% *CI* [.627, .997]) were associated with decreased probability of experiencing suicidal ideation. Specifically, for every unit increase in correct use of chosen name on legal documents, there was a 90% reduction in the probability of experiencing suicidal ideation. Additionally for every unit increase in community connection, there was a 20.9% reduction in the probability of experiencing suicidal ideation. It appears correct use of pronouns on legal documents, optimism, body congruence, sense of pride, perceived social support from friends and family variables were not significantly associated suicidal ideation.

Due to the low sample size of participants who reported suicidal attempts, there was not sufficient statistical power to analyze all of the included independent variables, as well as to assess for group differences between participants who experienced suicidal ideation versus those who also experienced a suicidal attempt.

CHAPTER V

DISCUSSION

Previous research has found that TNB individuals continue to experience high rates of suicidal ideation, as one study with approximately 40,000 participants found 82% of their sample seriously considering killing themselves in their lifetime (James et al., 2016). This demonstrates the necessity of better understanding various protective factors that lower the likelihood of suicidal ideation. The purpose of this study was to contribute to existing literature by using multiple theories to assess the relationships of multiple protective factors for TNB individuals with suicidal ideation through a quantitative methodology. The present study aimed to extend previous findings by assessing several protective variables that aligned with the socioecological levels, as well as the minority stress model, and GMSR. The adjusted and final hypothesis for the study consisted of; as correct use of pronouns and chosen name on legal documents, optimism, pride, body congruency, community connectedness, and social support increase, there will be a significantly less likelihood that participants will report experiencing suicidal ideation.

Analysis

The originally proposed SEM was not an appropriate approach due to low response rate. Thus, a logistic regression was conducted to analyze the data with a primary focus on assessing suicidal ideation as a dependent variable.

Discussion of the Present Study's Findings

The hypothesis was partially supported as not all increased variables were associated with a lower likelihood that participants reported suicidal ideation. Although previous research has suggested that all the hypothesized protective factors had a negative relationship with suicidal ideation, the current findings did not support that correct use of pronouns on legal documents, optimism, pride, body congruence, and perceived social support from friends and family significantly related to a lower likelihood of suicidal ideation. This may be in part to the relatively lower sample size impacting overall power of the sample. Furthermore, the overall model was significant perhaps implying that, as a collective, the collective protective factors contributed overall significance, but individually were not significant. Specifically in relation to perceived social support from family, the results were not significantly related to a lower likelihood of suicidal ideation. This may reflect that LGBTQ+ adults will often discuss and report importance of chosen family support rather than original family support (Frost et al., 2016) as well as developing greater resilience when engaging in more frequent contact with LGBTQ+ peers (Bariola et al., 2015).

However, there was a significant finding for two variables: community connectedness with the TNB community as well as correct use of chosen name on legal documents. The results of the study found that the correct use of chosen name on legal

documents and community connectedness with the TNB community were associated with a decrease in the likelihood that participants reported experiencing suicidal ideation. The findings support previous research for both community connectedness with the TNB community and correct use of one's chosen name impacting suicidal ideation.

The finding of significance for community connectedness with the TNB community reducing the likelihood of reported suicidal ideation supports all three theories utilized to comprise the model's variables. Bronfenbrenner's socioecological community level posited the importance of having strong social connections to mitigate negative health outcomes. Although there are multiple, complex relationships that can be captured by Bronfenbrenner's community level, the results of the study indicate unique affiliation and support from others with shared TNB identities are related to a lower likelihood of suicidal ideation. Furthermore, this finding also supports the minority stress model's emphasis on social support (Meyer, 2003; 2015). The minority stress model proposes that social support and affiliation with other minoritized group members is related to lower negative health outcomes (e.g. suicidal ideation). Lastly, the GMSR specifically highlights the importance of community connectedness as a means to counterpoint stressors through social-level coping, fostering connections with other TNB people, and normalizing emotional reactions related to TNB identity development (Pflum et al., 2015).

The finding of significance for the correct use of chosen name on legal documents reducing the likelihood of reported suicidal ideation also appears to support Bronfenbrenner's socioecological societal level, such that systemic forces can have positive and protective impacts on mental health outcomes for TNB communities. There

are many reasons why TNB individuals may choose a different name for themselves, perhaps due to validation, avoidance of stigma, or gender assumptions based on names; however, the results imply the importance of validating an individual's chosen name, particularly on legal documentation.

Previous research has also acknowledged individuals experiencing gender affirmation through various methods such as through correct name use in various settings, including in social settings as well as on legal documents, such as a passport, driver's license, etc. (Russell et al., 2018). The study's results support this previous literature and suggest the importance of accessibility to various forms of gender validation, such as correct name documentation. Research is growing a baseline understanding of the impacts of legal and political actions on the TNB community (i.e., Rabasco & Andover, 2021); these results suggest that affirmation through obtaining legal documents with correct use of chosen names may help to lower the likelihood of negative health outcomes, such as suicidal ideation.

Limitations and Implications

This study consists of several limitations. The most apparent limitation is the low response rate and final sample size. Sample size impacted the originally proposed study and analysis resulted in the necessary and appropriate changes. Overall, the final model is the most complete model that can be presented based on the sample size; therefore, there would not be sufficient power for follow up analyses to assess differences for participants who endorsed suicide attempts. The low sample size and response rate may be due to the use of a convenience sample and traditional difficulties of dissemination to

underrepresented populations. Another limitation was the use of self-report throughout the survey which includes a level of self-report bias.

Lastly, another limitation was the lack of racial and ethnic representation within the collected sample, as most of the participants identified as white. Because white people maintain racial privilege in the United States, the study was not able to capture systemic and interpersonal racial oppression and resilience; therefore, the results best represent various white TNB experiences. Due to the intersectional experiences of oppression TNB people of color daily experience, they may also endorse different protective factors and experience protective factors differently than white TNB individuals.

Implications for Research

The findings from this study also have several implications such as expanding current knowledge by further understanding significant variables for TNB individuals (an under-studied, high-risk group) that experience suicidal ideation. Although TNB populations have some of the highest rates of suicidality, there continues to be limited research understanding protective factors, in general. The findings from the conducted study also continue to build a framework for the originally proposed study to determine potential differences between suicidal ideation and suicide attempts amongst TNB individuals.

Implications for Practice

The findings also have imperative clinical implications for mental health practitioners who engage in suicidal prevention work with TNB individuals. Mental health practitioners can benefit by understanding protective factors and their relationship

with suicidal ideation. The study's results suggest that clinicians could encourage connection with other TNB individuals as it is associated with a lower likelihood of suicidal ideation. Additionally, prevention programs could help create opportunities that enhance social support and connectedness within TNB communities. Furthermore, clinicians can be mindful of proper name documentation to reflect and affirm a TNB client's chosen name which may serve as an empirically supported intervention to promote the wellbeing of TNB individuals.

Implications for Policies

Lastly, results can have important implications for a range of social policies. The study's results on the importance of correct name on legal documents resulted in a significantly lower likelihood of suicidal ideation. However, legal name changes may be unfeasible for many TNB individuals; therefore, other institutions such as workplaces, healthcare providers, schools, etc. could adjust protocols and means of identification to account for chosen names. A change in policies that promote the affirmation of TNB individuals, such as through proper name documentation, will possibly lower mental health disparities among TNB communities.

Future Research

As there exists a growing interest in protective factors for TNB individuals, the findings of this study offer unique contributions as it is one of the first to analyze several protective factors resulting in significant findings for community connectedness within the TNB community as well as correct use of chosen name on legal documents. There are many opportunities for continued research within the TNB community and understanding suicidality. Future research can expand on collecting sufficient data to examine the same

proposed variables to understand the relationships with suicidal attempts. This would create a stronger foundation for future research to assess the originally proposed topic of creating an SEM to understand the nuanced relationships between variables and determining differences between TNB individuals who have suicidal ideation versus those who continue on to suicidal attempts. Lastly, future research should examine relationships for intersectional identities within the TNB community. For example, a black trans woman's experiences of protective factors may differ from a white trans man's experiences as this would shape and inform culturally competent care and policies to bolster suicidal protective factors and ultimately lower suicidal risk amongst TNB communities.

Conclusion

Limitations notwithstanding, the current study adds to the knowledge of suicidology specifically addressing concerns within the TNB community using a socioecological, minority stress, and GSMR theoretical understanding of protective factors of suicidal ideation. The current study demonstrates the need to consider the implications of several levels of Bronfenbrenner's' socioecological model as well as the minority stress model to understand several protective factors against health disparities, including suicidal ideation, amongst historically marginalized groups. This study emphasizes the importance of establishing community connections within the TNB community as well as policy importance of using correct names on documentation and legal documents. The low response rate for this study may indicate the difficult nature in accessing and assisting hard-to-reach populations, such as the TNB community; however, it is imperative that organizations and providers seek to provide care and opportunities

that validate TNB individuals' identity and strengthen inter-community support to lower the likelihood of suicidal ideation.

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APPENDICES

APPENDIX A: TABLES

Table 1
Demographic Characteristics of Participants

Variable	*N*	%
Gender[a]		
Transgender	45	
Transman	30	
Transwoman	17	
FTM	30	
MTF	17	
FTM spectrum	16	
MTF spectrum	3	
Nonbinary	36	
Androgyne	2	
Polygender	1	
Genderqueer	15	
Gender non-conforming	9	
Two Spirit	2	
Genderfluid	8	
Other	9	
Sexuality[a]		
Lesbian	15	
Gay	7	
Bisexual	29	
Queer	34	
Pansexual	27	
Not sure/Questioning	3	
Asexual	7	
Heterosexual/Straight	8	
Other	7	
Race		
Native American/First Nation	1	1.1
Black/African American	1	1.1

Hispanic/Latinx	3	3.2
White Non-Hispanic/Latinx	83	87.4
Asian/Pacific Islander	1	1.1
Biracial/Multiracial	5	5.3
Other	1	1.1
Partnership Status		
Single, never married	29	30.5
In a committed relationship	22	23.2
Cohabitating	7	7.4
Married	23	24.2
Separated/divorced	9	9.5
Widowed	0	0
Remarried	0	0
Other	5	5.3

Note. $N = 95$

[a]Percentages not listed for gender and sexuality as they total more than 100%; participants were allowed to choose multiple categories that fit their experience.

Table 2
Demographic Characteristics of Participants Continued

Variable	*N*	%
Religion[a]		
Aboriginal	5	
Agnostic	16	
Buddhism	2	
Catholicism	5	
Christianity	13	
Hinduism	1	
Islam	1	
Judaism	0	
Sikhism	0	
No religion	45	
Other	22	
Education		
No formal education	0	0
Did not graduate from high school	8	8.4
High school graduate	9	9.5
Some college	34	35.8
College graduate	25	26.8
Some graduate school	3	3.2
Master's degree	14	14.7
Doctorate	2	2.1
Employment		
Full-time	59	62.1
Part-time	9	9.5
Self-employed	1	1.1
Unemployed	5	5.3
Unable to work	7	7.4
Homemaker	2	2.1
Student	10	10.5
Retired	2	2.1
Household income		
$0-20,000	23	24.2
$20,001-35,000	20	21.1
$35,001-55,000	19	20.0
$55,001-75,000	15	15.8
$75,001-100,000	6	6.3
$100,001-150,000	6	6.3
$150,001+	6	6.3

Note. $N = 95$
[a]Percentages not listed for religion as they total more than 100%; participants were allowed to choose multiple categories that fit their experience.

Table 3

Descriptive Statistics for Study Variables

Variable	*n*	*M*	*SD*	Skewness	Kurtosis
Suicidal ideation	95	.88	.322	-2.440	4.039
Legal records – Gender/Pronouns	95	1.61	.490	-.461	-1.827
Legal records – Correct Name	95	1.44	.499	.237	-1.986
Optimism	95	12.011	4.440	-.282	.387
Body Congruence	95	3.213	.895	-.022	-.809
Pride	95	19.211	8.034	-.387	-.930
Community Connectedness	95	12.063	4.899	-.421	-.395
Friend Support	95	14.347	5.367	-1.007	.090
Family Support	95	7.810	6.419	.432	-1.105

Table 4

Correlations for Factors of SI

Variable	1	2	3	4	5	6	7	8
1. Legal records – Gender/Pronouns	1.000	-.503	-.044	.013	.055	-.173	.136	-.061
2. Legal records – Correct Name		1.000	.205	.437	-.132	.037	-.182	.275
3. Optimism			1.000	.066	-.107	-.178	-.206	-.256
4. Body Congruence				1.000	-.341	-.059	-.236	.059
5. Pride					1.000	-.229	-.057	.122
6. Community Connectedness						1.000	-.016	-.007
7. Friend Support							1.000	-.160
8. Family Support								1.000

Table 5

Binary Logistic Regression Analysis: Variables of SI

Variable	*B*	*SE*	Wald	Exp (B)	Sig.	95% C.I. for Exp(B)
	Dependent variable: Suicidal ideation (0 = no, 1 = yes)					
Legal records – Gender/Pronouns	.654	1.047	.390	1.924	.532	.247, 14.980
Legal records – Correct Name	-2.303	1.155	3.973*	.100	.046	.010, .962
Optimism	-.072	.096	.568	.930	.451	.771, 1.123
Body Congruence	-.558	.576	.939	.572	.333	.185, 1.770
Pride	-.010	.052	.036	.990	.851	.894, 1.097
Community Connectedness	-.235	.118	3.958*	.791	.047	.627, .997
Friend Support	.000	.079	.000	1.00	.996	.856, 1.167
Family Support	.016	.065	.061	1.016	.804	.895, 1.154

Note. $N = 95$. $R^2 = .173$ (Cox & Snell), .333 (Nagelkerke). Percent correctly classified = 89.1%. *$p < .01$.

APPENDIX B: EXTENDED LITERATURE REVIEW

Suicide is ranked as the third-leading cause of death for young adults and adolescents (15-24 years old) in the United States (Centers for Disease Control and Prevention, 2011). According to the World Health Organization (WHO, 2014), an estimated one million people in the general public die by suicide around the world each year. There have been increasing efforts to better understand the various factors that relate to an individual's suicide risk; however, suicide prevention continues to persist as a difficult task as rates rise in the United States (Curtin, et al., 2016a).

Within the general population in the United States, there are a number of themes and variables that have been identified as suicide risk factors (e.g., substance use, psychiatric diagnosis, increased levels of aggressive behaviors, social isolation and loneliness, history of trauma and abuse, homelessness, and previous suicidal attempts; McCullumsmith et al., 2013; Mitchell et al., 2014). Binary gender differences also correlate with some suicide risk behaviors. For example, women were 1.8 times more likely to attempt suicide; whereas suicide rates are approximately 3 – 4 times higher among men in comparison to women, such that men died by suicide 3.88x more than women in 2020 (Garnett, et al., 2022).

Within suicidology literature there has been an increased focus on generating a clear articulation of suicidal phenomena. Suicidality, as a term, consists of multiple

outcomes and behaviors surrounding suicide such as, death by suicide, suicide attempt, suicidal ideation and intent, and self-harm (Fedyszyn et al., 2012; Thomas et al., 2012). Suicidality may be used interchangeably with "suicidal behaviors" in this literature review. Another term to understand is suicidal ideation is the act of thinking about, planning, or considering suicide (Crosby et al., 2011). **Suicidal Ideation and Suicidal Attempts**

Suicidal ideation refers to suicidal thoughts, including contemplating or planning to end one's own life. Suicidal behavior includes behaviors and specific action taken with the intention of ending life, which would include suicide attempts or deaths from suicide (Gosling et al., 2022). There have been several trends within suicidal behavior such as suicide attempts occurring more frequently than deaths from suicide; specifically, attempts occur 20 times more frequently than deaths from suicides (WHO, 2011). However, a more common phenomenon is higher rates of suicidal ideation than suicide attempts (Borges et al., 2008); therefore, not everyone who experiences suicidal ideation goes on to attempt suicide. Because only approximately one-third of individuals who have thought about suicide will progress to a suicide attempt, increasing attention has been paid to identifying factors which distinguish between these two groups (Glenn and Nock, 2014; Nock et al., 2013).

Specifically, for the age range of 18-29 adults, Crosby et al (2011) indicated that approximately 2.9 million individuals have suicidal ideation within a year, in comparison to the one million adults who indicate attempting suicide. These results indicate that more adults think about suicide than those who act on their suicidal thoughts. There is growing literature to understand what prevents people from attempting suicide (Mars et al., 2019;

Shahram et al., 2021; Taliaferro & Muehlenkamp, 2014). For example, one study found adolescents who attempted suicide endorsed stressors related to parents and a lack of connectedness to adult figures more frequently; whereas those who only considered suicide reported more experiences of physical abuse by parent figures, and running away from home (Wagner et al., 1995). The Wagner et al., study highlights differences between people who only consider suicide and those who attempt suicide.

Protective Factors in General Public

Protective factors are understood to not simply be a lack of risk factors in an individual's life, nor are they the opposite of risk factors (Cha & Nock, 2008). Protective factors are aspects that tend to reduce the likelihood and vulnerability of suicidal behavior and increase the likelihood of positive outcomes (Chehil & Kutcher, 2012; Eisenberg & Resnick, 2006; Evans et al., 2004). Furthermore, the interest in protective factors increased after observing that those with exposure to risk factors do not always continue on to develop suicidal behaviors (Beautrais et al., 2005). A number of the models discuss the importance of protective factors to understand suicidality. Regarding suicidology research, the study and emphasis on protective factors is an understudied concept in comparison to the existing literature of suicide risk factors (de Beurs et al., 2019).

One of the first foundational studies that considered protective factors was conducted by Linehan et al. (1983) by operationalizing the complex and imperative role of protective factors at play for the general public. Linehan et al (1983) conducted a qualitative study to understand people who felt suicidal and what were the important reasons they decided to not kill themselves. Sixty-five individuals produced 72 "reasons

for living", which were factor analyzed and reduced to 48 items to create the Reasons for Living Inventory (RFL). The RFL consists of six distinct categories of reasons; survival and coping beliefs, responsibility to family, child-related concerns, fear of suicide, fear of social disapproval, and moral objections related to suicide.

Emphasizing the importance of protective factors also leads to an increased focus on resilience, rather than the overemphasis on the negativity of risk factors. Protective factors also indicate that potential solutions to suicidality may be addressed by highlighting factors that increase one's sense of resiliency (Beautrais et al., 2005; Sher, 2019). Within the general adult population, there exists a range of potential protective factors such as, but not limited to, a confiding and supportive relationship (Chang et al., 2017), good coping and adaptive skills (Mirkovic et al., 2015), religious and/or spiritual values (Cole-Lewis et al., 2016; Gearing & Lizardi, 2008), and optimism (Hirsch et al., 2007; Tucker et al., 2013).

Although these protective factors have been identified as having a positive buffering effect on suicidal behaviors, researchers continue to call for integrative research that looks at the interactions of multiple protective factors (Beautrais et al., 2005). Understanding suicidal phenomena in the general public has grown exponentially; however, there have been growing shifts to better understand suicidality among marginalized populations. It is imperative to understand risk and protective factors for those who are most at risk to better focus prevention efforts.

Minority Stress Model

A central theory of understanding potential reasons for the mental health disparities in underrepresented individuals is through Meyer's minority stress model

(1995, 2003, 2015). Meyer highlighted that social stress builds on basic stress theory to include social environments and not just personal events that lead to mental and physical concerns (Meyer, 2003). Meyer elaborates on the concept of unique societal stressors minority individuals' experience and results in stigmatization (Meyer, 2003). Meyer (2015) clarifies that his original minority stress model was developed in the context of sexual orientation; however. the model also reflects gender identity.

Meyer's (2003) minority stress model explains two different types of minority stress: distal and proximal. Distal stressors would consist of external, objective stressful events and conditions. Some examples of distal stressors consist of discrimination, rejection, or violence due to the minority identity. Supporting this model, existing literature indicates that external stressors are related to increased levels of distress and negative mental health outcomes for Lesbian, Gay, and Bisexual (LGB) individuals (Almeida et al., 2009; Baams et al., 2015; House et al., 2011; Shipherd et al., 2011). Transgender and nonbinary (TNB) individuals also experience gender-based discrimination, rejection, and/or violence (Goldenberg et al., 2019; Hines, 2009; Porta et al., 2017; Sanchez et al., 2009; Weinhardt et al., 2017).

Another significant component of Meyer's (2003, 2015) minority stress model is the inclusion of "sources of strength", such as social support and coping to ameliorate the negative outcomes of stress. This concept may otherwise be known as protective factors that can buffer the effects of the stressors (Meyer, 2015). Identifying and measuring diverse protective factors has become a principle undertaking in the rhetoric of suicide prevention literature (Cha & Nock, 2008; Eisenberg & Resnick, 2006). Protective factors

can be internal and/or external aspects of defending against and buffering suicidal behavior that can lower the risk of suicidality (Meyer, 2015; Cogan et al., 2020).

The impact of these minority stressors is hypothesized to be lessened by individual resilience and protective factors, such as personal qualities and characteristics, in addition to community resilience, such as affirmation and accepting social networks and supports (Meyer, 2003; 2015). Although a minority status may come with minority stressors, it also has the opportunity to bring affiliation and belongingness with others with shared minoritized group members which may result in validation and a more positive self-evaluation (Meyer, 2003; Schmitt et al., 2006).

Thus, the minority stress model (Meyer, 2003) is an important explanatory mechanism to understand the unique stress factors and protective factors for individuals from marginalized groups. Due to the distal and proximal experiences of oppression-related stressors and the accompanying risk of increased negative mental health outcomes and suicidality, it is vastly important to identify both risk and protective factors.

Socioecological Model of Protective Factors

Bronfenbrenner's (1979) socioecological model provides an additional, and useful framework to conceptualize protective factors. Bronfenbrenner addresses protective factors within several different levels: individual, relationship, community, and societal levels. The individual level may consist of factors such as personality, beliefs, etc. The relationship level, or the microsystem, involves external relationships such as with partners, family, peers, etc. The community level, or the mesosystem, consists of large networks such as schools, social organizations, similar identity-based communities, etc. Bronfenbrenner's model extends into the exosystems and macrosystems, which are often

factors outside of the individuals' control, as well as larger, more abstract levels such as legal, political, and attitudes and norms within a culture. The societal level (macrosystem) includes protective factors within culture, religion, laws, etc.

Bronfenbrenner's socioecological model has typically been used within public health settings to understand protective factors among subgroups, such as those with marginalized sexuality (Armstrong et al., 2016). The socioecological model highlights the importance of each level and how they collectively impact one's well-being and health (Bronfenbrenner, 1979; Johns et al., 2019). This model can serve to help identify missing factors between levels to help direct future studies to improve interventions to address health concerns (Johns et al., 2019).

The socioecological model has been suggested as an additional paradigm to understanding the complexity of suicide that incorporate individual factors as well as social and cultural factors (Standley, 2020; White, 2016). A call from Standley (2020) imparts future research to utilize a socioecological model to understand the multifaceted impacted of the different described levels on suicidal ideation and behavior.

Suicide Among Lesbian, Gay, and Bisexual (LGB) Communities

Although suicide is a health concern for the general public, there are even higher rates for individuals who experience oppression thus resulting in disproportionate rates of suicidality. A majority of underrepresented and underserved populations are some of the highest-risk groups for suicide (Almeida et al., 2009; Hottes et al., 2016).

Although sexuality differs from gender identity, it can be informative to review previous literature on LGB mental health and suicidality. LGB individuals and transgender communities often experience comparable forms of systemic and individual

oppression which can result in similar stressors (Nagoshi et al., 2008). Previous literature has recorded rates of attempted suicides for Lesbian, Gay, Bisexual, Trans, Queer (LGBTQ+) youth anywhere from 14% to 42% (Almeida et al., 2009; D'Augelli et al., 2001; McBee-Strayer & Rogers, 2002; Walls et al., 2008). In comparison to their more privileged counterparts, youth who identify as LGBTQ+ have also been found to have higher rates of suicide ideation, as well as suicide attempts (Eisenberg & Resnick, 2006).

Suicidality among those with marginalized sexual identities is still a relatively understudied population despite elevated risk for suicide. However, a meta-analysis by Marshal et al. (2011) found a significant difference between the 18% of sexual minority youth with a history of suicidal behavior and the 12% of straight youth with a history of suicidal behavior, even after controlling for depression, age, and gender. A partial explanation to the grossly discrepant rates of suicidality between LGB and straight populations is that LGB individuals indicate having increased risk factors, such as experiencing stigma, rejection, and isolation (Kaniuka et al., 2019; Kelleher, 2009; Meyer, 2003).

Suicide Ideation and Suicide Attempts Among LGB Communities

Similar to general public patterns of suicidality, LGB populations report higher rates of suicidal ideation than suicide attempts. Rimes et al. (2019) found in a sample of 3275 LGB young adults reported 13.6% of lifetime suicide attempts in comparison to 45.2% having suicidal ideation. The study found that reported experiences of stigma and discrimination were associated with suicide attempts, suicidal ideation, and potential future suicide attempts. These findings indicate that risk factors such as stigma and discrimination may indicate overall high rates of suicidality. However, the study was not

able to identify differentiating factors that lead to the different rates of suicidal ideation and suicide attempts; thus, implying additional research to examine differing factors and experiences for LGB communities.

Protective Factors Among LGBTQ+ Communities

Protective factors have been a growing area of interest within LGB populations who experience suicidality. Especially as Meyer's minority stress model highlights the importance of protective factors and their impact on suicidality among LGBTQ+ individuals. An important study was conducted by Hirsch and Ellis (1998) in which they adapted Linehan and colleague's RFT model to analyze "reasons for living" among "homosexual" young adults. This study was crucial for its time, as it follows Meyer's (1995) minority stress model, suggesting specific consideration for marginalized identities. Hirsch and Ellis' study comprised of 24 self-identified "homosexual and lesbian" individuals and 38 "heterosexual" individuals who completed the RFL. The study found that gay men and lesbian women endorsed significantly less reasons to live than the number of reasons their heterosexual counterparts.

An additionally important study focusing on marginalized sexual orientation was by Rutter (2008). Rutter (2008) created a cumulative factor model that assessed previously identified protective and risk factors in past literature for LGB youth who experienced. The specific protective factors included in Rutter's (2008) model included resilience, social support, and optimism. The cumulative factor model helped establish further exploration of salient protective factors for marginalized individuals.

There has been an increased focus on additional protective factors for the LGBTQ+ community that serve as a buffer for negative mental health concerns and

suicidal behaviors. The recent literature has provided insight to the protective factors for LGBTQ+ individuals including but not limited to, family connectedness (Eisenberg & Resnick, 2006; Saewyc et al., 2009), perceived school safety (Eisenberg & Resnick, 2006; Taliaferro et al., 2019), friendship with other LGBTQ+ individuals (Testa et al., 2015), and the "coming out process" (Asakura & Craig, 2014) among other protective factors. Still, this area of research is limited and in its emerging stages.

Suicide Among TNB Communities

It is first important to define and understand the differences for some of the following terminology used throughout the literature review. It is imperative to distinguish that sexual orientation and gender identity are unique and different identity constructs that yield different experiences. Lesbian, gay, bisexual (LGB) refers to sexual orientation and the "T" stands for transgender which is referring to gender identity (Brill & Pepper, 2008; Johnson, et al., 2013; Renn, 2007). Gender identity is one's internal sense of gender (Twist & de Graaf, 2019).

The term transgender can represent a number of gender identities and expressions (James et al., 2016). Transgender can also be considered an umbrella term for people whose gender identity, expression, or behavior is incongruent with their sex assigned at birth (Brill & Pepper, 2008; Lambda Legal, 2008; Lev, 2004, Renn, 2007). Transgender and nonbinary individuals can consist of a range of sexual orientations as some TNB individuals may simultaneously have marginalized gender identities as well as marginalized sexual identities, which can range in intersectional minority experiences and stressors.

Nonbinary can be considered a more common single term for individuals who identify outside of the gender binary (i.e., male, female). Some nonbinary people use specific nonbinary pronouns such as they/them or other developed term such as xe/xyr (Richards et al., 2016). Other identities that exist within the nonbinary umbrella may consist of gender queer, gender fluid, pangender, androgynous, agender; however, this is not an exhausted list (Richards et al., 2016; Singh et al., 2011). However, it is paramount to remember that in an emerging field of gender identity, gender identities often change, and one should continue to attend and use an individual's self-declared identity when undertaking clinical work and research.

Specifically, for TNB individuals, research has indicated suicide rate that range from 18% to 47% (Clements-Noelle et al., 2006; Grant et al., 2010; Maguen & Shipherd, 2010; Moody & Smith, 2013). In comparison, the general public has a suicide attempt rate of approximately 4.6 % (Maguen & Shipherd, 2010). The severe disparity indicates that further investigation is needed to better understand complex factors that would potentially lead to lower rates of suicidality for TNB individuals.

Furthermore, intersectional identities of oppression, such as transgender women of color, have disproportionately high levels of adverse social and mental health outcomes (Bauer et al., 2015). The compounded effects of racism and anti-trans discrimination impact the overall mental health of TNB resulting in higher rates of suicidality (Herman et al., 2019). Herman et al. (2019) analyzed data from the 2015 U.S. Transgender Survey (USTS) which consisted 27,715 respondents from all 50 U.S. states, three U.S. territories, and overseas military bases, and found lifetime suicidal thoughts and attempts had the highest rates among Alaska Native/American Indian, 86.8 and 57.3

respectively, and Biracial/Multiracial individuals, 88.0 and 50.4 respectively. The least reported rates were by White individuals, 80.8% for suicidal thoughts and 37.4% for attempts. Specifically looking at Black and African American transgender individuals resulted with a lifetime ideation of 81.2% and lifetime attempt of 46.6%. These results indicate the intersectional effects of racism and anti-trans experiences resulting in higher levels of suicidal behavior. Additionally noteworthy, among all groups there exists higher rates of suicidal thoughts than attempts for the individuals' lifetime and the past year. These results suggest that TNB individuals experience disproportionately high rates of suicide and further research is necessary to understand the risk and protective factors that influence the rates of suicidality.

Suicidal Ideation and Suicide Attempts Among TNB Communities

Scarce literature exists understanding the phenomenon of moving from suicidal ideation to suicidal attempts in the general public, but there is even less information regarding TNB individuals. The Youth Risk Behavior Survey (YRBS) included a pilot item assessing transgender identity in 2017 and found that 44% of transgender participants reported seriously considering attempting suicide and 34% reported a suicide attempt (Johns et al., 2019). However, as this trend continues to be understood, there have been growing theories that posit potential reasons for the disproportionate rates of suicidal ideation and suicidal attempts.

A systematic review by McNeil et al. (2017) reviewed correlates of suicide ideation and attempts specifically among transgender individuals. Mcneil et al.'s (2017) study was important as it was helpful in identifying individual and environmental factors that were related to suicide ideation and attempts. However, different correlates of suicide

ideation and attempts were not emphasized thus resulting in difficulties differentiating risk for suicide ideation versus attempts.

Therefore, continued research is needed to better understand what factors lead to both suicide ideation and suicide attempts among TNB individuals. Yet, similar to previous LGB studies, there are existing theories that primarily emphasize the risk factors that would partially explain the increase rates of suicidality among TNB individuals, as well as differences in suicidal ideation and suicide attempts.

Meyer's s for TNB Communities

Meyer's (1995; 2003; 2015) minority stress model was foundational in understanding the different types of unique stressors that impact marginalized LGB individuals, resulting in disparate mental health differences. Meyer has also clarified that the minority stress model although originally created in the context of sexual orientation, also applies to gender identity (Meyer, 2015). As previously mentioned, a significant portion of the minority stress model emphasizes the role of resilience and protective factors, such as coping and social supports to buffer the effects of the stressors to reduce negative health outcomes (Meyer, 2015). Thus, the impact of these minority stressors is hypothesized to be lessened by individual resilience, i.e., personal qualities and personality characteristics and community resilience, i.e., affirming/accepting social environments and social support (Meyer, 2003; 2015). Meyer (2015) further explains that one's gender identity has an impact on exposure, not only to minority stress, but also exposure to coping and resilience opportunities, such as relationships within communities with minoritized gender identities. This group affiliation and sense of belonging allows minoritized individuals to evaluate themselves more in relation to individuals similar to

them as opposed to members of dominant groups, thus bringing about validation and a more positive self-evaluation (Meyer, 2003; Schmitt et al., 2006).

Meyer's model (2015) has been applied in other studies to understand the impacts of stressors. To demonstrate how TNB individuals experience distal minority stressors, Nemoto et al. (2011) found in a study of 573 transgender participants in which they reported multiple distal events. Approximately, half of the participants reported being physically assaulted, one third had been assaulted by an intimate partner, two-thirds reported being humiliated and/or ridiculed by a family member for their gender identity or gender expression, and approximately half of participants experienced some form of transphobia due to their appearance or gender expression, resulting in job loss, hiding their gender identity, or experiencing jokes or harassment. These findings highlight the distal stressors TNB individuals can face in their daily lives.

Further literature has found additional distal stressors that TNB individuals experience, such as discrimination to obtain legal documentation with TNB individuals' correct name and gender identity, and use of public restrooms and other public facilities (Russell et al., 2018; Seelman, K. L., 2016). Furthermore, TNB individuals may experience distal stress based on others' responding to their gender identity in non-affirmative interactions (Sevelius, 2013), such as using incorrect pronouns for a TNB individual (Matsuno & Budge, 2017).

The second group of stressors in Meyer's model (2003), known as proximal stressors, consist of anticipation and vigilance of expecting victimization or discrimination, internalization of negative social messages (i.e., internalized homonegativity), and concealing one's sexual orientation. TNB individuals also

experience proximal stressors as they also anticipate experiences of discrimination, as previously mentioned. TNB individuals also can experience internalized transnegativity by incorporating anti-trans and/or anti-nonbinary societal messages (Delozier et al., 2020; Rood et al., 2016).

Tebbe and Moradi (2016) conducted a study that focused on implementing Meyer's (2003) model to the transgender community, as the original model does not include transgender individuals. The study found, in a study of 355, self-identified, transgender people, that internalized antitrans attitudes (internalized transnegativity) and fear of antitrans stigma was significantly correlated with suicidal behaviors. This study highlights internal stressors also have a significant relationship with suicidal outcomes.

Gender Minority Stress and Resilience Model (GMSR)

Most recently, Meyer's model was adapted to create the gender minority stress theory (GMSR; Testa et al., 2015), which looks at unique stressors, both distal and proximal, as well as protective factors for TNB individuals (Hendricks & Testa, 2012; Testa et al., 2015). Some of the distal stressors are similar to Meyer's model, such as experiencing discrimination, rejection, and victimization, but based on gender identity. However, the GMSR highlights TNB individuals' specific distal stressors, such as non-affirmation of gender-identity. GMSR also discusses proximal stressors, such as internalized 'transphobia' and negative expectations regarding gender identity, and concealing authentic gender-identity.

Similar to Meyer's minority stress model, GMSR includes protective factors including community connectedness, referring to the feeling of cohesion within TNB individuals marginalized gender community (Testa et al., 2015). The other protective

factor presented in GMSR is pride, referring to the feeling of acceptance and comfort with one's authentic gender-identity (Testa et al., 2015).

Previous research on the GMSR has demonstrated that the distal stressor of gender-based victimization is associated with increased risk for suicide, such that those who have experienced gender non-affirmation, such as denied access to bathrooms that align with their gender, are approximately 1.5 times more likely to attempt suicide than TNB individuals who have not experienced gender non-affirmation (Seelman, 2016). Similar to trends in general suicidology research, the distal and proximal stressors in the GMSR are frequently studied while the protective factors in the GMSR have little to no research (Cogan et al., 2020). Therefore, continued research is needed to specifically understand the roles of the proposed proactive factors, community connectedness and pride, in relation to other protective factors and to suicidality at large.

Protective Factors Among TNB Populations

There is scarce research; however, a growing area of research is addressing protective factors for the TNB community. Although protective factors and resilience are important components of the minority stress model, little work has focused on factors that might serve to reduce the risk for poor mental health and suicide (Eisenberg et al., 2017; Johns et al., 2018). Some the identified protective factors are, but not limited to, feelings of acceptance, being valued, transitioning and/or hormone treatments, surgeries, family connectedness, acceptance of transgender identities, and friendships with other LGBTQ+ peers (Crosby et al., 2016; Bauer et al., 2015; Kozee et al., 2012; Moody, et al., 2015; Testa et al., 2015). However, there is growing evidence to support the claim that

transgender individuals' have salient protective factors (Moody, et al., 2015; Testa, et al., 2015) against suicidality.

Two of the most instrumental studies come from Moody and Smith (2013) and Moody et al. (2015) as they were one of the leaders that specifically focused on protective factors for trans adults. Moody and Smith (2013) recruited 133 self-identified trans adults and quantitatively measured a number of protective factors, such as optimism, social support, suicide resilience, and reasons for living. The study found that perceived social support from family members, emotional stability (a component of suicide resilience), and child-related concerns (reasons for living) were especially salient within the sample for trans adults with lower levels of suicidality.

A follow up study by Mood et al., was a qualitative investigation of suicide protective factors with 133 trans adults through open-ended questions from an online survey. Some of the main themes that emerged were social support, reasons for living, individual difference factors (e.g., optimism, coping and problem-solving), gender identity related factors (e.g., acceptance with identity, becoming one's self), and transition-related factors (e.g., coming out, hope of transitioning).

The preliminary research has been beneficial in identifying a number of protective factors against suicidality for TNB individuals. Given that previous research has demonstrated optimism (e.g., Moody & Smith, 2013), affirmation and transitioning (Budge et al., 2015; Crosby et al., 2016; Glynn et al., 2016; Moody et al., 2015; Scheim et al., 2020; Vaitses Fontanari et al., 2020) pride (Cogan et al., 2020; Meyer, 2003; Singh et al., 2011; Testa et al., 2015), TNB community connection (Barr et al., 2016; Meyer, 2003; Pflum et al., 2015; Smith et al., 2018; Testa et al., 2015), body congruence (Kozee

et al., 2012), social support (McConnell et al., 2016; Mood & Smith, 2013; Pflum et al., 2015; Trujillo et al., 2017), serve as potential protective factors, these aspects are hypothesized to buffer suicidality for TNB individuals. However, a gap exists, such that few studies have addressed these multiple protective factors uniquely for TNB communities.

Individual Level Protective Factor

Optimism. As previously stated, optimism has been a central protective factor for both cis and TNB individuals. However in past research, results yield mixed findings in assessing the role of optimism and suicidality, such that some studies have identified a significantly negative relationship between optimism and suicidality (Hirsch et al., 2007; Tucker et al., 2013) whereas others did not find a significant relationship between optimism and suicidality (Moody & Smith, 2013). The mixed empirical results suggest that optimism needs further analysis in TNB populations to better understand why and for whom optimism is a protective factor.

Optimism continues to appear in suicidology literature, especially within LGBTQ+ populations as it is one of three protective factors in Rutter's (2008) model and suggests that individuals have favorable expectations for their future. Additionally, optimism is important to continue to evaluate among TNB populations as it is also an important factor in helping TNB individuals overcome adversities (Bry et al., 2017) and found to be a protective factor against suicidality (Moody & Smith, 2013; Moody et al., 2015).

Pride. Meyer (2003) initially suggests that a sense of pride in sexual orientation may serve as a protective factor against minority stress experienced by LGB individuals.

Today, there are many LGBTQ+ communities that engage in celebratory pride days, a festivity that often includes parades and increased awareness of LGBTQ+ members within larger communities. Pride days are to recognize the first riots and people who have fought for LGBTQ+ rights in the past, as well as those currently working for LGBTQ+ rights.

As Meyer's minority stress model was applied by Testa et al. (2015) for TNB individuals, pride was included and found to be a protective factor. Overall, viewing one's gender identity in a positive manner is encompassed under the concept of pride (Testa et al., 2015) and there are multiple studies that have suggested that pride is conversely related to poor mental health outcomes (Bockting et al., 2013; Singh, 2013). Additionally, Brennan and colleagues (2017) found for TNB participants that their sense of pride was a negative predictor of suicide attempts. However, further exploration is needed to better understand how pride relates to suicidality and its relationship with other protective factors.

Body Congruence. An understudied, but important protective factor is the role of body congruence for TNB individuals within their TNB identity development (Kozee et al., 2012). Moody and colleagues (2015) also identified the importance of participants "becoming one's self, the person they were meant to be, and living authentically." However, gender identification does not have to be a static process, but may be a more fluid experience for TNB people which can lead to changes in their gender expression (Diamond et al., 2011; Kozee et al., 2012). Transfeminism, a movement born out of the intersectionality of being a transgender woman, posits that TNB individuals create their own identities based on authentic feelings within their own social environments (Corsani,

2007). Therefore, the feeling of genuine comfort by presenting one's self in an authentic expression has been termed 'congruence' or 'body congruence' (Kozee et al., 2012). Previous research has indicated that for those who desire to engage in medical affirmative interventions (i.e., hormones, gender reassignment surgeries, ect.) yields an increased feeling of congruence between the physical body and gender identity (Lindgren & Pauly, 1976; Owen-Smith et al., 2018; Röder et al., 2018).

Body congruence and body satisfaction are similar phenomena, and previous research on body satisfaction in cis populations suggests a negative relationship between external body satisfaction and depressive symptoms, as well as suicidal behaviors (Crow et al., 2008; Murray et al., 2008). Kozee and colleagues (2012) created a measure that moved away from a binary understanding of transgender identity development by focusing on the authentic, diverse, and genuine expression of gender identity. Kozee and colleagues (2012) also found that higher levels of congruence were positively associated with life meaning and satisfaction, as well as being negatively associated with depression more than life meaning. Kozee and colleagues 's findings encourage further study on the role of body congruence among TNB populations in relation to suicidality.

Relationship Level Protective Factors

Social Support. Social support has been seen as an imperative protective factor, not only for the general public (e.g., Chioqueta & Stiles, 2007; Linehan et al., 1983; Kleiman & Liu, 2013), but also for LGB individuals (e.g., Rutter, 2008; Watson et al., 2019) and TNB individuals (McConnell et al., 2016; Moody et al, 2015; Trujillo et al., 2017). There are a growing number of studies that have examined the relationship between social support and suicidal behaviors (e.g., Miller et al., 2015) such that

individuals with less social support are at greater risk of suicidality. Results suggested a significant role for social support in protecting against suicidal ideation. Perceived emotional and social support from friends, parents, partner and family were significantly negatively associated with suicidal ideation and/or attempts (Kota et al., 2020; Shah et al., 2018; Treharne et al., 2020)

In Moody et al.'s (2015) study, one key outcome was the importance of social support as a suicidal protective factor before, throughout, and after an individual transitioned (for those participants who valued transitioning). Further, they found that social circles that understood trans identities, learned more about the experiences of transgender people, and used affirming language proved to be one of the most influential protective components for transgender participants. To further support the value of family support for TNB individuals, Bockting et al. (2013) found that support from family reduced distress for TNB individuals after experiencing gender identity-related stigma.

Although community connectedness was previously discussed, there are existing articles that have found social support from cis social supports, including friends and family, as a predictor of well-being among TNB individuals (Baser et al., 2016). Additionally, the Canadian trans PULSE Project found in a sample of trans individuals that social support specifically reduced suicide risk (Bauer, 2015). Social support from family and friends can serve as an important protective factor for TNB individuals; however, little research has been done identifying social support differences for TNB individuals with suicidal ideation versus those who attempt suicide.

Community Level Protective Factor

TNB Community Connectedness. Meyer (2003) also originally posited in the minority stress model that being connected and feeling a sense of belonging in a community is an important buffer against negative mental health outcomes and suicidality. There have been multiple studies that have echoed the importance of connecting to a community with similar marginalized identities, especially for TNB individuals (Pflum et al., 2015; Singh, 2013; Singh et al., 2011).

Another important aspect to Pride days is being around and connecting with others who also are a part of marginalized sexual or gender identities. For example, McDonald (2016) reported on a small city in Manitoba's first official celebration of Pride day. Many queer individuals stated that they felt supported by other LGBTQ+ people and felt supported by their community. One interviewee stated that he had serious suicidal plans but after the Pride event he felt support by having a connection to other LGBTQ+ people in his community. He stated, "don't give up on your community. I thought I had given up on my community—then I saw a couple thousand people walking down the street behind me carrying Pride flags. I realized: my community is behind me. It just takes time" (Mcdonald, 2016).

Too often LGBTQ+ individuals experience estrangement from their families due to their sexual orientation and/or their gender identity and will often seek support through members of their community (Barr et al., 2016). This may be a more salient experience for TNB individuals to find a sense of belonging and connection as TNB individuals report feeling more alienated from mainstream culture (Singh et al., 2011). Furthermore, Meyer's (2003) minority stress model states that distal stressors of discrimination and fear of rejection can be commonly encountered stressors; however, these may be less of a

concern and frequent experience among similarly identifying individuals (Barr et al., 2016; Frost & Meyer, 2012).

Barr et al. (2016) was a foundational study that sought to understand TNB community connectedness by assessing the sense of belonging TNB individuals experienced in the TNB community. Barr et al.'s (2016) study found that community connectedness fully mediated a relationship between the strength of transgender identity and well-being. Therefore, a connection with the TNB community can serve as a protective factor and may suggest the type of connection may play a role to impact suicidal risk.

However, TNB individuals have different opportunities and opportunities to access forms of TNB community connections. Though community connectedness has been supported to be a beneficial aspect for TNB individuals' mental health, there is still scarce literature understanding the impacts of community connectedness in relation to suicidal behavior and how community connectedness interacts with other protective factors.

Societal Level Protective Factor

Affirmation and Transitioning. Although transitioning and affirmation literature is in its infancy, there are gender identity-related protective factors that appear to be important for TNB individuals. Gender affirmation is an interpersonal process, such that a TNB individual experiences social support and recognition for their gender identity and expression (Bockting, 2008; Nuttbrock et al., 2009). Gender affirmation has also been acknowledged in previous literature under different terminologies; 'gender construction'

(Rodriguez-Madera and Toro-Alfonso 2005), 'transgender identity affirmation' (Nuttbrock et al., 2002), 'gender validation' (Nemoto et al., 2004).

However, it is important to note that gender affirmation can be experienced in different methods, beyond physical and medical options, and not all TNB people indicate that they want to physically and/or medically transition. Yet, for those who do desire to engage in medical transition treatments (i.e., hormones, surgeries) they report better mental health outcomes (de Vries et al., 2014; Moody et al., 2015; Olson-Kennedy & Warus, 2017). Vaitses et al. (2020) found for those who had access to medical affirmative interventions reported less anxiety and depressive symptoms. Engaging in these various forms of transitions may be affirming to a TNB individual's gender identity. Previous research has also acknowledged individuals experiencing gender affirmation through correct pronoun use and chosen name use in various settings, including in social settings as well as on legal documents, such as a passport, driver's license, etc. (Russell et al., 2018).

These protective factors were chosen to be the primary focus for the study due to alignment with the levels within Bronfenbrenner's ecological theory. Additionally, the connection-based protective factors were included as it overlapped theoretical backing from Bronfenbrenner's model as well as the MSM. Lastly, protective factors identified in the GMSR were included due to relevance to the specified target population amongst TNB individuals. Overall, there appears to be a lack of empirical evidence that assess how multiple protective factors impact suicidality in general and even more so among TNB populations.

APPENDIX C: INFORMED CONSENT DOCUMENT

IRB-21-297

OKLAHOMA STATE UNIVERSITY
STUDY INFORMATION SHEET & INFORMED CONSENT
TNB DIFFERENTIAL SUICIDAL PROTECTIVE FACTORS STUDY

STUDY PURPOSE

The purpose of this study is to gain a more comprehensive understanding of important factors and life experiences for transgender and nonbinary (TGNB) individuals. This study has been reviewed by the Oklahoma State University Institutional Review Board.

PROCEDURES FOR THE STUDY:

If you agree to be in the study, you will do the following things:

You will be completing an online questionnaire that is estimated to take between 25 – 30 minutes of your time. Some of the questions in this study will ask about personal identity, previous history about suicidality, as well as various life experiences.
As discussed in the confidentiality section below, the study is an anonymous questionnaire, no identifying information will be collected, and the records of the study will be kept private.

RISKS OF PARTICIPATION

There are no risks that are anticipated from your participation in the study. You will be asked about past suicidal experiences which may cause some discomfort. You can skip any questions that cause discomfort, and you may stop the survey at any time without penalty.

If you experience discomfort, please contact the National Suicide Prevention Lifeline at 1-800-273-8255, their texting line by texting "GO" at 741741, or the Trans Lifeline at 877-565-8860. The researchers encourage all participants to seek a local Counseling Center in their community, if needed, for further support

For participants outside of the US the following website link, https://findahelpline.com/i/iasp facilitates finding a helpline in your country. Type in the country you currently are in and the website will provide multiple options for suicide helplines.

BENEFITS OF PARTICIPATION
The anticipated benefit of participation is to provide insight into positive life experiences that may or may not exist for TNB individuals.

CONFIDENTIALITY
This study includes an anonymous questionnaire; as such the records of this study will be kept private. Any written results will discuss group findings and will not include information that will identify you. Research records will be stored on a password-protected computer in a locked office and only researchers and individuals responsible for research oversight will have access to the records. Data will be destroyed three years after the study has been completed.
Note that Qualtrics has specific privacy policies of their own. If you have concerns, you should consult this service directly. Qualtrics' privacy statement is provided at: http://qualtrics.com/privacy-statement.

CONTACTS FOR QUESTIONS OR PROBLEMS
For questions about the study, contact the researcher, Emily Burish at eburish@okstate.edu or her advisor Tonya Hammer, PhD at tonya.hammer@okstate.edu

For questions about your rights as a research participant or to discuss problems, complaints or concerns about a research study, or to obtain information, or offer input, contact the IRB Office at 223 Scott Hall, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu

VOLUNTARY NATURE OF STUDY
Taking part in this study is voluntary. You may choose not to take part or may leave the study at any time. Leaving the study will not result in any penalty or loss of benefits to which you are entitled. Your decision whether or not to participate in this study will not affect your current or future relations with Oklahoma State University.

COMPENSATION
At the end of the survey there will be an additional link that will take you to a separate, two-question survey for you to **enter a drawing for a chance to win one of five $50 Visa gift cards.** This is also voluntary to enter the drawing. To enter the drawing, you will need to provide a valid email address for the gift card to be sent to if you are one of the five winners. The separate link ensures that your information you answered on the survey is not connected to your personal email and ensuring anonymous responses.

CONSENT DOCUMENTATION:

I have been fully informed about the procedures listed here. I am aware of what I will be asked to do and of the benefits of my participation. I also understand the following statements:

I affirm that I am 18 years of age or older.

YES
NO

I have read and fully understand this consent form. I hereby give permission for my participation in this study.

YES
NO

APPENDIX D: STUDY MEASURES

Demographic Questions

1. What is your current gender identity? (Please check all that apply)
   - o Transgender
   - o Transman
   - o Transwoman
   - o FTM (Female to Male)
   - o MTF (Male to Female)
   - o Someone on the FTM spectrum
   - o Someone on the MTF spectrum
   - o Non-binary/enby
   - o Androgyne
   - o Polygender
   - o Genderqueer
   - o Gender non-conforming
   - o Two-spirit
   - o Gender fluid
   - o Other (please specify)_____

2. What is your current sexual orientation? (Please check all that apply)
   - o Lesbian
   - o Gay
   - o Bisexual
   - o Queer
   - o Pansexual
   - o Not sure or questioning
   - o Asexual
   - o Straight
   - o Other (please specify)_____

3. How do you identify your race/ethnicity (Please check all that apply)
   - o Native American/First Nation
   - o Black/ African American
   - o Hispanic/Latino(a)
   - o White, non Hispanic/Latino(a)
   - o Asian/Pacific Islander
   - o Different Identity (please specify) _____

4. How old are you? ____

5. What is your partnership status (please indicate the item that best describes your situation)?

- Single, never married
- Single, in a committed relationship
- Cohabitating
- Married
- Separated or Divorced
- Widowed
- Remarried
- Different Status (please specify)_____

6. What is the highest level of education you have completed?

- No formal education
- Did not graduate from High School or earn a GED
- High School Graduate or GED
- Some College/AA degree/Technical School Training
- College Graduate (BA/BS)
- Some graduate school
- Master's Degree
- Doctorate/Medical/Law Degree
- Refuse to answer

7. What is your current employment situation?

- Work full-time
- Work part-time
- Self-employed
- Unemployed
- Unable to work
- Homemaker/stay at home parent
- Student
- Retired

8. What is your current annual household income?

- 0-$20,000
- $20,001-35,000
- $35,001-55,000
- $55,001-75,000
- $75,001-100,000
- $100,001-150,000
- $150,001 or above

9. With what religion do you most closely identify? (Please check all that apply)
   - o Aboriginal Spirituality
   - o Agnostic
   - o Buddhism
   - o Catholicism
   - o Christianity
   - o Hinduism
   - o Islam
   - o Jewish
   - o Judaism
   - o Sikhism
   - o No religion
   - o Other (please specify _____)

10. What pronouns do you currently use _____

a. Do people use your correct pronouns at home?

Yes(1) No(2) Not Applicable(3)

b. Do people use your correct pronouns at work?

Yes No Not Applicable

c. Do people use your correct pronouns at school?

Yes No Not Applicable

d. Do your legal records (i.e., birth certificate, driver's license, passport, etc.)

reflect your correct pronouns/gender marker?

Yes No Not Applicable

11. Do you use a name that is different from the name you were given at birth?

Yes No Not Applicable

a. Are you able to go by your chosen name at home?

Yes No Not Applicable

b. Are you able to go by your chosen name at work?

Yes No Not Applicable

c. Are you able to go by your chosen name with friends?

Yes No Not Applicable

d. Are you able to go by your chosen name at school?

Yes No Not Applicable

e. Do your legal records (i.e., birth certificate, driver's license, passport, etc.)

reflect your chosen name?

Yes No Not Applicable

12. Which of the following applies to your current situation regarding hormones and/or surgery?

- I have medically transitioned (hormones and/or surgery)
- I am in the process of medically transitioning
- I am planning to transition, but have not begun
- I am not planning to medically transition
- The concept of "transitioning" does not apply to me
- I am not sure whether I am going to medically transition

Validity Measure
Please select the option, "does not apply to me:"

1. Yes
2. No
3. Maybe
4. Does not Apply to me

Dependent Variable
Suicidality:

1. Have you ever seriously thought about killing yourself?
   Yes (1) No (2)
2. Have you ever made a plan about how you would kill yourself?
   Yes No
3. How many times have you tried to kill yourself?
   _____

Validity Measure
Are you closely reading and thoughtfully responding to the questions in this survey?
1. No
2. Yes
3. Unlikely
4. Probably not

Independent Variables
Optimism: LOT-R
Please answer the following questions about yourself by indicating the extent of your agreement using the following scale:

[0] = strongly disagree
[1] = disagree
[2] = neutral
[3] = agree
[4] = strongly agree

Be as honest as you can throughout, and try not to let your responses to one question influence your response to other questions. There are no right or wrong answers.

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

1. In uncertain times, I usually expect the best.	0	1	2	3	4
2. It's easy for me to relax.	0	1	2	3	4
3. If something can go wrong for me, it will.	0	1	2	3	4
4. I'm always optimistic about my future.	0	1	2	3	4
5. I enjoy my friends a lot.	0	1	2	3	4
6. It's important for me to keep busy.	0	1	2	3	4
7. I hardly ever expect things to go my way.	0	1	2	3	4
8. I don't get upset too easily.	0	1	2	3	4
9. I rarely count on good things happening to me.	0	1	2	3	4
10. Overall, I expect more good things to happen to me than bad.	0	1	2	3	4

Pride: GMSR

Please indicate how much you agree with the following statements.

1. My gender identity or expression makes me feel special and unique.	Strongly Disagree	Somewhat Disagree	Neither Agree/Disagree	Somewhat Agree	Strongly Agree
2. It is okay for me to have people know that my gender identity is different from my sex assigned at birth.	Strongly Disagree	Somewhat Disagree	Neither Agree/Disagree	Somewhat Agree	Strongly Agree
3. I have no problem talking about my gender identity and gender history to almost anyone.	Strongly Disagree	Somewhat Disagree	Neither Agree/Disagree	Somewhat Agree	Strongly Agree
4. It is a gift that my gender identity is different from my sex assigned at birth.	Strongly Disagree	Somewhat Disagree	Neither Agree/Disagree	Somewhat Agree	Strongly Agree

5. I am like other people but I am also special because my gender identity is different from my sex assigned at birth.	Strongly Disagree	Somewhat Disagree	Neither Agree/Disagree	Somewhat Agree	Strongly Agree
6. I am proud to be a person whose gender identity is different from my sex assigned at birth.	Strongly Disagree	Somewhat Disagree	Neither Agree/Disagree	Somewhat Agree	Strongly Agree
7. I am comfortable revealing to others that my gender identity is different from my sex assigned at birth.	Strongly Disagree	Somewhat Disagree	Neither Agree/Disagree	Somewhat Agree	Strongly Agree
8. I'd rather have people know everything and accept me with my gender identity and gender history.	Strongly Disagree	Somewhat Disagree	Neither Agree/Disagree	Somewhat Agree	Strongly Agree

Community Connectedness: GMSR

Please indicate how much you agree with the following statements.

1. I feel part of a community of people who share my gender identity.	Strongly Disagree	Somewhat Disagree	Neither Agree/Disagree	Somewhat Agree	Strongly Agree
2. I feel connected to other people who share my gender identity.	Strongly Disagree	Somewhat Disagree	Neither Agree/Disagree	Somewhat Agree	Strongly Agree
3. When interacting with members of the community that shares my gender identity, I feel like I belong.	Strongly Disagree	Somewhat Disagree	Neither Agree/Disagree	Somewhat Agree	Strongly Agree
4. I'm not like other people who share my gender identity.	Strongly Disagree	Somewhat Disagree	Neither Agree/Disagree	Somewhat Agree	Strongly Agree
5. I feel isolated and separate from other people who share my gender identity.	Strongly Disagree	Somewhat Disagree	Neither Agree/Disagree	Somewhat Agree	Strongly Agree

Body Congruence: TCS

Gender identity is defined as the gender(s) that you experience yourself as; it is not necessarily related to your assigned gender at birth. For the following items, please indicate the response that best describes your experience over the past two weeks.

	Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree
1. My outward appearance represents my gender identity.	1	2	3	4	5
2. I experience a sense of unity between my gender identity and my body.	1	2	3	4	5
3. My physical appearance adequately expresses my gender identity.	1	2	3	4	5
4. I am generally comfortable with how others perceive my gender identity when they look at me.	1	2	3	4	5
5. My physical body represents my gender identity.	1	2	3	4	5
6. The way my body currently looks does <u>not</u> represent my gender identity.	1	2	3	4	5
7. I am happy with the way my appearance expresses my gender identity.	1	2	3	4	
8. I do <u>not</u> feel that my appearance reflects my gender identity.	1	2	3	4	5
9. I feel that my mind and body are consistent with one another.	1	2	3	4	5

10. I am <u>not</u> proud of my gender identity.	1	2	3	4	5
11. I am happy that I have the gender identity that I do.	1	2	3	4	5
12. I have accepted my gender identity.	1	2	3	4	5

Social Support: PSS-FR & PSS-FA

The statements which follow refer to feelings and experiences which occur to most people at one time or another in their relationships with <u>friends</u>. For each statement there are three possible answers: Yes, No, Don't know. Please select the answer you choose for each item.

1.My friends give me the moral support I need.	Yes	No	Don't Know
2. Most other people are closer to their friends than I am.	Yes	No	Don't Know
3. My friends enjoy hearing about what I think.	Yes	No	Don't Know
4. Certain friends come to me when they have problems or need advice.	Yes	No	Don't Know
5. I rely on my friends for emotional support.	Yes	No	Don't Know
6. If I felt that one or more of my friends were upset with me, I'd just keep it to myself.	Yes	No	Don't Know
7. I feel that I'm on the fringe of my circle of friends.	Yes	No	Don't Know
8. There is a friend I could go to if I were just feeling down, without feeling funny about it later.	Yes	No	Don't Know
9. My friends and I are very open about what we think about things.	Yes	No	Don't Know
10. My friends are sensitive to my personal needs.	Yes	No	Don't Know
11. My friends come to me for emotional support.	Yes	No	Don't Know
12. My friends are good at helping me solve problems.	Yes	No	Don't Know
13. I have a deep sharing relationship with a number of friends.	Yes	No	Don't Know

14. My friends get good ideas about how to do things or make things from me.	Yes	No	Don't Know
15. When I confide in friends, it makes me feel uncomfortable.	Yes	No	Don't Know
16. My friends seek me out for companionship.	Yes	No	Don't Know
17. I think that my friends feel that I'm good at helping them solve problems.	Yes	No	Don't Know
18. I don't have a relationship with a friend that is as intimate as other people's relationships with friends.	Yes	No	Don't Know
19. I've recently gotten a good idea about how to do something from a friend.	Yes	No	Don't Know
20. I wish my friends were much different.	Yes	No	Don't Know

The statements which follow refer to feelings and experiences which occur to most people at one time or another in their relationships with families. For each statement there are three possible answers: Yes, No, Don't know. Please select the answer you choose for each item.

1.My family gives me the moral support I need.	Yes	No	Don't Know
2. I get good ideas about how to do things or make things from my family.	Yes	No	Don't Know
3. Most other people are closer to their family than I am.	Yes	No	Don't Know
4. When I confide in the members of my family who are closest to me, I get the idea that it makes them uncomfortable.	Yes	No	Don't Know
5. My family enjoys hearing about what I think.	Yes	No	Don't Know
6. Members of my family share many of my interests.	Yes	No	Don't Know
7. Certain members of my family come to me when they have problems or need advice.	Yes	No	Don't Know
8. I rely on my family for emotional support.	Yes	No	Don't Know
9. There is a member of my family I could go to if I were just feeling down, without feeling funny about it later.	Yes	No	Don't Know
10. My family and I are very open about what we think about	Yes	No	Don't Know

things.			
11. My family is sensitive to my personal needs.	Yes	No	Don't Know
12. Members of my family come to me for emotional support.	Yes	No	Don't Know
13. Members of my family are good at helping me solve problems.	Yes	No	Don't Know
14. I have a deep sharing relationship with a number of members of my family.	Yes	No	Don't Know
15. Members of my family get good ideas about how to do things or make things from me.	Yes	No	Don't Know
16. When I confide in members of my family, it makes me uncomfortable.	Yes	No	Don't Know
17. Members of my family seek me out for companionship.	Yes	No	Don't Know
18. I think that my family feels that I'm good at helping them solve problems.	Yes	No	Don't Know
19. I don't have a relationship with a member of my family that is as close as other people's relationships with family members.	Yes	No	Don't Know
20. I wish my family were much different.	Yes	No	Don't Know

APPENDIX E: GIFT CARD DRAWING

Second survey to enter gift card drawing through a different Qualtrics link

Please answer the following questions to be entered into the drawing for one of five $50 Visa gift cards. A reminder that the email you enter will not be connected to the information you just filled out, therefore keeping your information anonymous.

1. Would you like to enter the drawing to win one of five $50 Visa gift cards
   Yes No
2. Please enter a valid email that the gift card will be sent to: _____

Thank you again so much for your participation in the study, I am beyond grateful! It is my hope that this study will continue to help clinicians and psychologists better understand important life factors to the trans and nonbinary community to help lower the risk of suicide by creating future transgender and nonbinary suicide prevention programs.

APPENDIX F: DEBRIEFING STATEMENT

Debriefing Statement

Thank you for participating in this research. In the study, the researcher studied different protective factors that may influence suicidality, such as suicidal ideation and suicide attempts. If you would like a copy of the results of the study, please contact the researcher and arrangements will be made.
Again, your mental health and well-being are incredibly important to us, if you need additional resources after completing the study, please contact the National Suicide Prevention Lifeline at 1-800-273-8255, their texting line by texting "GO" at 741741, the LGBT Helpline at 1-888-843-4564, or the Trans Lifeline at 877-565-8860.

And for participants outside of the US, use this website https://findahelpline.com/i/iasp to help you find a helpline in your country, if needed.
The researchers encourage all participants to seek a local Counseling Center in their community, if needed, for further support

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If you have questions about your rights as a research volunteer, you may contact the Oklahoma State University Institutional Review Board (IRB) Chair. Email: irb@okstate.edu

Thank you so much for participating. You are valued and you matter!

APPENDIX G: IRB APPROVAL LETTER

Oklahoma State University Institutional Review Board

Date:	07/15/2021
Application Number:	IRB-21-297
Proposal Title:	Protective Factors for Transgender and Non-binary Individuals that Distinguish Suicidal Ideation Versus Suicide Attempts: A Structural Equation Modeling Analysis
Principal Investigator:	Emily Burish
Co-Investigator(s):	
Faculty Adviser:	Tonya Hammer
Project Coordinator:	
Research Assistant(s):	
Processed as:	Exempt
Exempt Category:	

Status Recommended by Reviewer(s): Approved

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in 45CFR46.

This study meets criteria in the Revised Common Rule, as well as, one or more of the circumstances for which continuing review is not required. As Principal Investigator of this research, you will be required to submit a status report to the IRB triennially.

The final versions of any recruitment, consent and assent documents bearing the IRB approval stamp are available for download from IRBManager. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be approved by the IRB. Protocol modifications requiring approval may include changes to the title, PI, adviser, other research personnel, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms.
2. Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.
3. Report any unanticipated and/or adverse events to the IRB Office promptly.
4. Notify the IRB office when your research project is complete or when you are no longer affiliated with Oklahoma State University.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact the IRB Office at 405-744-3377 or irb@okstate.edu.

Sincerely,
Oklahoma State University IRB

VITA

Emily Burish

Candidate for the Degree of

Doctor of Philosophy

Dissertation: FACTORS ASSOCIATED WITH LOWERED LIKELIHOOD OF SUICIDAL IDEATION FOR TRANS AND NONBINARY INDIVIDUALS

Major Field: Counseling Psychology

Biographical:

Education:
Completed the requirements for the Doctor of Philosophy in Counseling Psychology at Oklahoma State University, Stillwater, Oklahoma in July, 2022.

Completed the requirements for the Master of Science in Educational Psychology at Oklahoma State University, Stillwater, Oklahoma in 2019.

Completed the requirements for the Bachelor of Arts in Psychology at University of Wisconsin – Eau Claire, Eau Claire, Wisconsin in 2012.

Experience:

2021-2022	University of Wisconsin Madison Mental Health Services – *Pre-Doctoral Psychology Intern (APA Accredited)*
2020-2021	Oklahoma City Veteran's Affairs Geropsychology Unit – *Practicum Counselor*
2019-2020	Oklahoma State University Counseling Services – Grief Counselor *Practicum Counselor*
2018-2019	Al Carlozzi Center for Counseling at OSU Tulsa – *Practicum Counselor*

Professional Memberships:
American Association of Suicidology
Division 17: Society of Counseling Psychology
Division 44: Society for the Psychology of Sexual Orientation and Gender