

AN ABSTRACT OF THE THESIS OF

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A growing body of literature associates transgender and gender non-conforming (TGNC) identity with adverse mental and emotional health outcomes. Only a handful of studies have been conducted using population-based samples of adolescents to study mental health outcomes in TGNC youth (e.g., Eisenberg et al., 2017; Perez-Brumer, Day, Russell, & Hatzenbuehler, 2017; Rider, McMorris, Gower, Coleman, & Eisenberg, 2018; Toomey, Syvertsen, & Shramko, 2018) and only one has looked at outcomes that may indicate thriving (Eisenberg et al., 2017). The current study analyzes data from the 2017 Oregon Healthy Teens Survey (OHTS) ($N = 26,747$), a population-based biannual survey of eighth and eleventh graders. In 2017, the OHTS included three gender variables: youth report their gender identity, gender presentation (rated on a spectrum from very feminine to very masculine), and perception of others' evaluation of their gender presentation. The current study examined associations between gender identity and four measures of thriving (emotional/mental health and wellbeing, grades, self-efficacy, and the presence of a caring adult at school) and three measures of adverse mental health outcomes (depressive symptoms, suicidal ideation, and suicide attempt). Multiple and logistic regression were used to test two sets of models. The first set of models included only one indicator of

gender identity as a predictor of thriving and adverse mental health outcomes. The second set of models included all three indicators of gender identity as well as interactions between them to provide comparison as to how a more nuanced understanding of gender relates to youth outcomes. Results showed that youth who identified with a TGNC gender identity had the most adverse scores for every outcome compared to their female and male peers. In addition, youth who identified with either a female or a male gender identity, but who reported presenting and/or believing others perceived them as presenting in a non-gender-conforming way (i.e., something other than feminine for females or something other than masculine for males) often reported more adverse outcomes than their fully gender-conforming peers. Finally, outcomes for youth who identified with a TGNC gender identity varied depending on the category of self-presentation or others' perception that the youth reported. Those outcomes often mirrored results for the gender-conforming gender identity of the category of self-presentation or others' perception endorsed by the youth (e.g., a TGNC youth who presents as feminine and believes others perceive them as feminine reports lower emotional and mental wellbeing than a TGNC youth who presents as masculine and believes other perceive them as masculine). On this survey, 5.48% of youth claimed a TGNC gender identity, an unprecedented rate for population-based surveys. In addition, only 57.52% of females and 56.04% of males chose the fully gender-conforming options on the self-presentation and others' perception questions (i.e. feminine for females and masculine for males), a notable outcome given the connection between any degree of gender non-conformity and the lower levels of thriving and higher levels of mental health risk found in this study. Implications include the need for greater support of youth who identify as TGNC, as well as the need for researchers and service providers to not only ask about gender

identity beyond the traditional female/male binary, but also to include items on surveys and forms that assess more than one dimension of gender.

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Thriving and Mental Health Outcomes Among Transgender and Gender Non-Conforming Youth
in Oregon

by
Linda Fenske

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I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

Linda Fenske, Author

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DEDICATION

This work is dedicated to my husband, Tom Fenske, whose encouragement, good humor, and support made this project possible.

Introduction

In recent years, as people who identify as transgender or gender non-conforming (TGNC) have become more visible in the news and in popular media, clinical and developmental researchers have become aware of significant gaps in knowledge about this population. Even understanding how many people identify as TGNC is a challenge. One study estimated that 0.6% of the U.S. adult population, or around 1.4 million people, identify as TGNC (Flores, Herman, Gates, & Brown, 2016). This percentage varies with age: 0.5% of adults over 65 and 0.7% of adults between the ages of 18 – 24 endorse a TGNC identity (Flores et al., 2016). A recent population-based study of 9th and 11th grade youth in Minnesota, however, found that 2.7% of the youth in that state identified as TGNC (Eisenberg et al., 2017).

Although a body of literature associates TGNC identity with adverse mental and emotional health outcomes, most of this research has been conducted with small convenience samples of adults (Valentine & Shipherd, 2018). A study of a convenience sample of TGNC adults surveyed in 2008 ($N=5885$, $M\ age=37.0$ years, $SD=13.1$) found a prevalence of lifetime suicide attempts of 41% (Haas, Herman, & Rodgers, 2014). In contrast, studies estimate that 4.6% of the general population have made suicide attempts over the course of their lifetime (Haas et al., 2014). Multiple studies have found associations between TGNC identity and depressive symptoms in adults, an association mediated by perceptions or experiences of violence and hostility in both the societal and individual context (e.g., Budge, Adelson, & Howard, 2013; Jefferson, B. Neilands, & Sevelius, 2013; Nuttbrock et al., 2014). One study of 1,093 TGNC adults found that 44.1% of respondents reported depressive symptoms, with transgender females (i.e., their natal sex was male) having twice the odds of reporting depressive symptoms as transgender men (Bockting, Miner, Swinburne Romine, Hamilton, & Coleman,

2013). These studies stand in contrast to findings that the prevalence of depressive symptoms is estimated to be 6.7% in the general population (NIMH, 2015). Together, this research on measures of mental and emotional wellbeing (e.g., suicide attempts and depressive symptoms) suggest that TGNC individuals experience significantly higher rates of adverse outcomes than individuals who do not identify as TGNC.

Of the studies on mental and emotional health outcomes conducted with TGNC adolescents, only a handful have used large, representative samples. These studies find that TGNC youth report long-term mental health problems at three times the rate of non-TGNC youth (Rider et al., 2018). They report suicidal ideation at two to three times the rate of non-TGNC youth (Eisenberg et al., 2017; Perez-Brumer, Day, Russell, & Hatzenbuehler, 2017). One study found that, whereas 14.1% of the overall sample of adolescents reported that they had attempted suicide at some point in their lifetime, the youth who identified as transgender males (i.e., their natal sex was female) had a lifetime suicide attempt rate of 50.9% (Toomey et al., 2018). Nonbinary youth, who considered themselves neither male nor female, had a lifetime suicide attempt rate of 41.8%, and transgender females reported a rate of 30.0% (Toomey et al., 2018). Those youth who were unsure or questioning their gender identity reported a lifetime suicide attempt rate of 27.9% (Toomey et al., 2018).

As a society, we generally hope for more than simply survival for the next generation. We hope that young people will thrive. Unfortunately, research into thriving for TGNC youth is scarce. Only one study has measured protective factors in the lives of TGNC youth using a large, population-based sample. This study found that TGNC youth score significantly lower on measures of family connectedness, positive student-teacher relationships, and feeling safe in the community (Eisenberg et al., 2017). Research into positive outcomes for TGNC youth, however,

is lacking. The current study includes emotional/mental wellbeing, academic achievement, self-efficacy, and the presence of a caring adult at school as measures of thriving among TGNC youth.

The alarmingly high rates of risk for depressive symptoms and suicidal behavior along with the paucity of research on what helps TGNC youth thrive indicates the need for a nuanced understanding of this population that will inform effective programs and policies to support these youth. The 2017 Oregon Healthy Teen Survey offers a unique opportunity to analyze wellbeing outcomes both for youth who identify themselves as TGNC, and for youth who report presenting themselves in a gender non-conforming manner (e.g., they report their gender identity as male, but report presenting themselves as feminine). This population-based biannual survey of eighth and eleventh graders in Oregon included gender options beyond male and female for the first time in 2017. In addition, participants were asked to describe both how they present their gender (on a continuum from very feminine to very masculine) and how they think others would describe their presentation using the same scale. This combination of variables allows for exploration of the various ways in which gender identity may be expressed and experienced among youth, and the ways that those expressions and experiences relate to emotional and mental wellbeing and other indicators of thriving across nuanced gender identities. The present study will examine associations between gender identity (as it is experienced and presented, and as its reception is perceived by the individual youth) and several measures of wellbeing—both thriving and risk—including general emotional and mental wellbeing, academic achievement, self-efficacy, presence of a caring adult at school, depressive symptoms, suicidal ideation, and suicide attempt. This study was based in a relational developmental systems paradigm, using a strengths-inclusive approach to understand the relationship between gender identity in

adolescents and emotional and mental health and wellbeing and thriving outcomes. In addition, this study was informed by minority stress theory, which emphasizes that mental or emotional health challenges or lack of thriving among individuals in stigmatized populations are not a sign of individual pathology, but are instead the result of an individual internalizing contextual hostility to their identity.

Terminology

Before diving into the theoretical framework for the present study, a note on terminology. As with other stigmatized populations, terminology referring to gender non-conforming people has historically been used to demean this population. This study, in alignment with American Psychological Association (2015) guidelines, seeks to use terminology in a supportive, empowering manner. As our culture grapples with the concept of gender identity, terminology arises, transforms, and disappears at a rate that makes precise wording in research a challenge. In line with current cultural and academic usage, this study employs “sex” or “natal sex” to mean the category assigned to an individual at birth, usually as a result of doctors and parents observing individual biology (American Psychological Association, 2015). “Gender” refers to the characteristics, both physical and behavioral, that are associated with the experience of being male or female within a given culture (Galambos, 2004). “Gender identity” refers to an individual’s internal perception of whether they are “male, female, a blend of both, or neither” (Human Rights Campaign, 2019). Following recent research, the current study will use “gender non-conforming,” the abbreviation TGNC (transgender and gender non-conforming), and “gender atypical” to indicate a person whose gender identity varies from the one assigned based on natal sex, whose behaviors and appearance do not align with societal gender norms (e.g., Leibowitz & de Vries, 2016; Rider et al., 2018; Valentine & Shepherd 2018). These gender

identities may not fit into a culturally agreed-upon category (i.e., female or male) (Human Rights Campaign, 2019). In contrast, the terms “gender typicality” or “gender-typical youth” refer to those youth whose gender aligns with their natal sex and whose behaviors and appearance align with societal gender norms. The term “cisgender” appears in this study to indicate individuals with a gender identity that matches what is culturally expected for their natal sex (American Psychological Association, 2015). In addition, in accordance recent APA approval, this paper will employ the use of the pronoun “their” as both singular and plural (American Psychological Association, 2019).

Literature Review

Relational Developmental Systems Metatheory

This paper will examine gender identity and its relation to mental and emotional health outcomes and measures of thriving using a relational developmental systems (RDS) metatheoretical approach. Within an RDS approach, human development is understood as a function of a multi-tiered system, each level of which exists in persistent interaction with all of the others while moving through time (Overton, 2013; Overton & Müller, 2012). The scope of the human developmental system ranges from microscopic biology at cellular and sub-cellular levels (e.g. DNA) to the individual (e.g., natal sex, gender identity) and their proximal context (e.g., examples they see of gender roles in their family and community, what they are directly and indirectly taught about gender) and out to a macro level of culture and political structures (e.g., laws and cultural norms related to gender roles and identity) (Overton, 2013; Overton & Müller, 2012). This system is infinitely complex: all levels continuously interact with one another in a manner that is mutually influential (Overton, 2013; Overton & Müller, 2012). For example, as a youth with male anatomy learns from family, friends, school, church, and media

what it means to be male, that youth may realize that their internal experience does not align with this meaning. If they are comfortable doing so, the youth may experiment with outwardly expressing the inward experience of feeling female, either verbally or visually through clothing or hair style. A positive response from family may encourage the youth to experiment further, whereas a negative response may lead the youth to experience shame, leading the youth to reshape their outward expression of their gender in order to feel more supported by their family and aligned with others' perceptions of how they should express themselves. This bidirectional interaction is often termed "coaction" to indicate the simultaneous nature of the process, and is often denoted with two arrows: $\leftarrow \rightarrow$ (Lerner, 2006; Lerner et al., 2005; Lerner & Overton, 2008). According to this view, the question of whether nature or nurture exerts more influence over development is moot: biology and environment, individual and context, nature and nurture, are not separate entities. These pairs, necessarily separated in language, can only exist in relation to one another. The continuous feedback loops between individual and context are part of a holistic system that cannot exist in a meaningful way in separate pieces (Overton & Müller, 2012). The fundamental concept underlying this metatheoretical perspective is "a rejection of all splits between components of the ecology of human development" (Lerner et al., 2006, p. 3). No functional boundary exists between the individual and their environment. From this perspective, a TGNC youth who is experiencing depressive symptoms is not necessarily suffering from an individual pathology. Rather, the youth is displaying the effects of a harmful lack of fit between the youth and their environment. In order for the youth to thrive, their environment must be fortified. For example, Gay-Straight Alliances (GSAs) at schools are associated with improved mental wellbeing not only for sexual minority youth, but for TGNC youth as well (Russell & Fish, 2016). Importantly, an RDS perspective is in direct opposition to the idea that TGNC youth

experience adverse mental health outcomes because their gender non-conformity is itself pathological. Within an RDS perspective, a youth's context must be taken into consideration. Minority stress theory, discussed later in this paper, provides an explanation of how the interaction between an individual and their environment may lead to adverse mental health outcomes.

The temporal aspect of this model includes both cultural history as well as individual developmental time. Time must be taken into account at all tiers of the relational developmental system (Lerner, 2012; Lerner & Overton, 2008). Time added to the continuous processes occurring among levels of the system allows for a central concept of this metatheoretical approach: that the system is changeable, or plastic (Lerner, 2006; Lerner & Overton, 2008; Overton, 2013). This plasticity allows the system to be “adaptive, complex, inherently active, self-creating, self-organizing, and self-regulating” (Overton & Müller, 2012, p. 45). The system's nested layers are mutually regulatory, with the properties of each providing feedback to all of the others, mediated by each proximal layer in turn (Lerner, 2006; Lerner & Overton, 2008; Overton, 2013). As a result, the system is changeable, but not infinitely malleable (Lerner, 2006; Lerner & Overton, 2008; Overton, 2013).

The plasticity of a relational developmental system is reason for optimism, however. The ability to change affords a place for the hope that changes could be for the better. If the coaction between person and context can be optimized over time, both will benefit, developing in a positive direction (Lerner, 2006; Lerner & Overton, 2008; Overton, 2013). For example, youth who identify with a gender that differs from their natal sex will often choose a new name to reflect their gender identity. Research has found that when others use this chosen name, youth have improved emotional and mental health outcomes. The more contexts the chosen name is

used in, the more benefit is seen to emotional and mental health outcomes (Russell, Pollitt, Li, & Grossman, 2018). A context that can be adapted to use one youth's preferred name and pronouns (the doctor's office, for example) may become a context that is safer and more supportive for other youth.

This possibility of improvement informs much developmental science in this century, as researchers work to find elements of the system that may be amenable to interventions aimed at increasing alignment of system layers in a way that fosters outcomes that are beneficial to an individual and their contexts (Lerner, 2006; Lerner & Overton, 2008; Overton, 2013). The current study examines an individual's internalized gender identity and how that individual interacts with their context through presentation of a gender that may or may not be aligned with their internalized gender identity. A lack of alignment may indicate a less than optimal fit between the individual and their context. For example, if the individual believes that their context will reject their internal experience of their own gender (e.g., if their internal experience of gender is that they are female, but their appearance—the first way that others in the context interact with them—is traditionally male), the individual may choose to continue and promote the context's understanding of them as male. For some, the energy required to maintain this split identity, or the reasons that they are inspired to do so, may cost them some of their general emotional and mental wellbeing, or may impair their ability to thrive. They may make the judgment that coping with a mismatch between their psychological experience of their gender and the environmental understanding of that gender is less costly than aligning their inner and outer gender identities.

Adolescent Development

Intervening during times of heightened plasticity is one way to leverage cultural resources in the quest to optimize development. Adolescence is one of these periods: a time of increased plasticity of critical systems, during which changes in structure and function of the body, including neurology, will have influence for a lifetime (Lee et al., 2014). The extent, pace, and significance of these changes during adolescence are comparable to the earliest stages of life (Dahl, Allen, Wilbrecht, & Suleiman, 2018). A strengths-inclusive approach to adolescent development that is based in a relational developmental systems approach begins with the premise that youth outcomes are rooted in the bidirectional relationship between the youth and their context: if the strengths of the youth are aligned with the environment, the youth is likely to show more positive development overall (e.g., Benson, 2002; Benson, Scales, Hamilton, & Sesma Jr., 2006; Lerner et al., 2005; Roth & Brooks-Gunn, 2003). Such an approach is fundamentally optimistic about the possibility of contextual intervention to improve youth outcomes, and for improved youth outcomes to, in turn, promote the creation of a society that fosters more positive outcomes for all (Lerner, Brentano, Dowling, & Anderson, 2002). All youth are understood to be “resources to be developed rather than...problems to be managed” (Roth & Brooks-Gunn, 2003, p. 94).

Identity Development: A Critical Growth Task for Adolescents

Positive identity formation. Positive identity formation has long been understood as an essential task of adolescence (e.g., Erikson 1968). Developing a cohesive, positive identity is foundational to completing other developmental tasks, laying the groundwork for positive wellbeing and mental health (Erikson 1968; Motti-Stefanidi, 2015). A cohesive, positive identity is one that is adaptive, i.e., one that is mutually beneficial for individual $\leftarrow \rightarrow$ context relations

(Motti-Stefanidi, 2015). In other words, formation of a positive identity is both a precursor for and an indication of thriving (Eichas, Meca, Montgomery, & Kurtines, 2015). Within a relational developmental paradigm, identity is a dynamic process, not a static trait. It embodies the ongoing relationship between individual and context. Erikson described identity as “a process ‘located’ *in the core of the individual* and yet also *in the core of his communal culture*, a process which establishes...the identity of those two identities” (Erikson, 1968, p. 22). Erikson’s further explanation elucidates the complexity of this process:

Identity formation employs a process of simultaneous reflection and observation...by which the individual judges himself in the light of what he perceives to be the way in which others judge him in comparison to themselves and to a typology significant to them; while he judges their way of judging him in the light of how he perceives himself in comparison to them and to types that have become relevant to him” (Erikson, 1968, p. 22 – 23).

Erikson’s description of this process is itself riddled with feedback loops, demonstrating the challenge of translating this process into language. The current study engages with these feedback loops, comparing a youth’s inner experience of gender identity with the youth’s presentation of that identity and, further, with the youth’s judgment of others’ evaluation of the youth’s presentation. For youth who are gender atypical, their identity, that process that is located both in the individual and in the culture, may be problematic. The culture is often hostile to an identity that includes gender atypicality, a fact that individuals become aware of at a very young age.

Gender identity development. Gender identity awareness develops well before puberty, with most children knowing what gender they are by age 2 (Grossman & G’Augelli, 2007). Children in elementary school strongly prefer toys and clothes oriented toward their gender, and prefer socializing with members of their own gender (Martin & Fabes, 2001). Interestingly, young children who identify with a different gender than the one associated with their natal sex

behave in the same way, exhibiting choice in toys, clothes, and behaviors that align with their gender identity. For example, a child identified as a boy at birth, but with a female gender identity, will choose stereotypically girl-oriented toys and clothes (Olson & Gülgöz, 2018). Gender-typical children increasingly enforce gender roles among their peers, rewarding peers who adhere to gender norms and sanctioning those who do not (Blakemore, 2003). Children who openly (at least to their families) identify with a gender different from their natal sex are less likely to engage in this sanctioning behavior. They and their siblings are more accepting of children who do not strictly conform to gender role norms (Olson & Gülgöz, 2018). By middle school, peers reward gender typicality, or adhering to socially understood gender norms, with popularity, and penalize degrees of gender non-typicality with corresponding loss of social esteem (Jewell & Brown, 2014). One study found that boys in grades 6 through 8 are particularly likely to be highly rewarded for gender typicality and to be harshly penalized through gender-based teasing for any degree of non-typicality (Jewell & Brown, 2014).

Gender becomes particularly salient in adolescence, a function of the “semi-private” process of pubertal maturation (Natusuaki, Samuels, & Leve, 2015; p. 391). Before puberty, gender is a matter of self-presentation: a child with long hair who is wearing a dress is likely to be assumed to be a girl, no matter what anatomy is present beneath the dress. Current advice from therapists to parents with young children who express wanting to be a gender different from their natal sex often includes the option of “social transition” (Sherer, 2016). Social transition involves adopting a name, pronouns, style of dress, hairstyle and other elements of physical presentation that signal the gender that a child believes that they are, regardless of assigned natal sex (Sherer, 2016). These measures are becoming more common as awareness grows of the dire mental health outcomes for children and adolescents whose gender identity does not match their

natal sex (Ehrensaft, 2017; Sherer, 2016). Puberty, of course, will upend this socially transitioned presentation. For youth who have been grappling with a gender identity that does not match their anatomy, this time of increasing visibility of secondary sex characteristics presents a time of reckoning, in which they may be forced by their own bodies to publicly account for their gender identity, whether they are developmentally ready for such a declaration or not. One increasingly common course of action in this situation is for a doctor to prescribe hormonal puberty blockers. Prolonging physiological childhood by delaying puberty provides more time for a questioning child to work through their gender identity (Steensma et al., 2013; Turban, 2017).

Social transition and puberty blockers are not available to all children, however, and represent, at best, a highly individualized solution to a problem that involves multiple levels of an individual child's context. Rather than verbalizing their feeling of atypicality early in life, many youth may simply have a feeling of being different without understanding the basis of that feeling, or may understand the nature of the difference, but know that they will face sanction if they express their difference to their peers or their families. While some children are aware of the precise nature of their non-typicality, many are unaware or unsure until puberty or later (Keo-Meier & Ehrensaft, 2018).

The challenges faced by gender non-conforming children and adolescents in regard to their identity development present one example in which the coaction between context and a developing child or adolescent causes harm. The contextual response to an individual characteristic, such as race, ethnicity, immigrant status, or gender typicality can be a source of risk (Clonan-Roy, Jacobs, & Nakkula, 2016; Meyer, 2003, 2015; Motti-Stefanidi, 2015). Recent research affirms that the relationship between the youth and their environment, rather than individual pathology, is the likely culprit in negative mental health outcomes for gender non-

conforming youth (e.g., Jewell & Brown, 2014; Russell, Pollitt, Li, & Grossman, 2018; Sitkin & Murota, 2017; Testa et al., 2017). In other words, as understood through a relational developmental systems lens, the lower levels of wellbeing for a gender non-conforming youth are grounded in the contextual hostility toward that youth's identity and the youth's response to that hostility. Minority stress theory provides a framework for understanding how this individual $\leftarrow \rightarrow$ context misalignment may lead to adverse outcomes for developing adolescents.

Minority Stress Theory

In order to avoid pathologizing “a vulnerable population who may be experiencing a normative response to pervasive discrimination, violence, and exclusion” (Valentine & Shipherd, 2018, p. 35), a recent review of literature on TGNC adults and youth stresses the need for research based on minority stress theory. Minority stress theory provides a framework for identifying sources of risk and resilience for people who identify as TGNC by describing a model of coaction between an individual and a context which is hostile toward their identity. The minority stress model takes a relational developmental perspective on individual identity development (Meyer, 2003, 2015). Both individuals and communities can experience minority stress when they have an identity that is stigmatized by the larger society (Meyer, 2003, 2015). This stress increases the likelihood of mental health difficulties as well as physical problems related to mental health (Meyer, 2015). In recent years, the expansion of the model to gender non-conforming people has been increasingly validated by research (e.g., Barrow & Apostle, 2018; Borgogna, McDermott, Aita, & Kridel, 2019; Bruce, Gunnar, Pears, & Fisher, 2013; Hendricks & Testa, 2012; Meyer, 2015; Turban, Ferraiolo, Martin, & Oleski, 2017; WPATH, 2011). Minority stress experienced by gender non-conforming people is both “socially based and chronic” (WPATH, 2011, p. 4).

The gender-identity minority stress model recognizes a continuum of proximal and distal stressors, all of which can impact the mental and physical health of people with gender non-conforming identities (Meyer, 2015). Distal stressors include governmental and institutional policies and practices that are based in prejudice and misunderstanding. These stressors may be experienced by the individual as challenges in obtaining legal identification that reflects their gender identity, such as a driver's license or passport, difficulty obtaining appropriate medical care either because of legal identification discrepancies or because of ignorance or discrimination from care providers, or the basic and common challenge of having a safe place to use the restroom in public (Testa et al., 2015).

More proximal influences on the mental health of gender non-conforming youth include family and school, contexts in which gender identity minority stress may be experienced in a more intense manner (e.g., Smith & Leaper, 2006; Smith et al., 2018; Toomey et al., 2012). For example, gender non-conforming youth experience higher levels of bullying at school than their gender typical peers (Smith & Juvonen, 2017). In addition, youth who would like to be known by a different name and pronouns than they were given at birth often experience rejection of these crucial elements of identity most intensely and most often at these proximal levels (Sitkin & Murota, 2017). These youth also experience higher levels of abuse at home, and are more likely to experience homelessness as a result of family rejection (Baams, 2018; Friedman et al., 2011; Roberts, Rosario, Corliss, Koenen, & Austin, 2012). Gender non-conforming youth are aware of the larger cultural reality that gender non-conforming people experience higher levels of violence related to their gender identity than their cisgender peers, which creates an environment of chronic fear (Hendricks & Testa, 2012). This violence against gender non-

conforming youth is likely reinforced by the larger structural forces of policy and practice at all levels of government and institutions (Hatzenbuehler and Pachankis, 2016).

All of these influences, both distal and proximal, are linked to the most proximal influences of all—internalized self-stigma, in which an individual feels prejudiced against their own identity, and rejection sensitivity, which leads individuals to conceal their status as gender non-conforming to avoid the physical and emotional rejection that they have learned to expect, either by personal experience or by observing the experience of others (Hatzenbuehler and Pachankis, 2016). Even though concealment may not be a healthy long-term strategy for wellbeing, it may behave as a protective factor for a youth in the short-term, since it allows the youth to avoid both the potentially devastating loss of closeness with family or peers and the various forms of rejection and violence noted above (Russell & Fish, 2019).

Relating the mental health challenges faced by gender non-conforming youth to the minority stress that they experience is important: until 2015, the medical community officially declared the gender non-conforming identity itself to be pathological (Sitkin & Murota, 2017), a declaration which contributed to the minority stress that gender non-conforming people experience (WPATH, 2011). Not only does this previous orientation place the burden for improvement on the individual while ignoring the context, it also contributes to the burden of minority stress that the individual experiences.

From a strengths-based perspective, examining mental health challenges in the presence of minority stress is not enough to fully understand the status of these youth. Exploring elements of thriving in the context of minority stress is also essential. Although addressing suicidality is an urgent matter, simple lack of suicidal ideation or depressive symptoms does not indicate that a youth is doing well. In addition to including a general measure of emotional and mental health

and wellbeing, the current study includes youth academic achievement, youth self-efficacy, and the presence of a caring adult at school as measures of thriving.

Academic achievement provides an indication of how well youth are faring in a central environment of their adolescence. This measure is one marker for a student's "fit" within their school environment, i.e. a measure of the quality of coaction between the student and their school (Eccles, 2004). School can be understood as an environment through which a youth experiences the impacts of the distal social and cultural influences as they are distilled into policy and practice at a district and individual school level, and then enacted on a daily basis by adults at school (Eccles & Roeser, 2011). For gender non-conforming youth, this distillation might include refusal to use preferred names and pronouns, absence of gender options other than male or female on forms, and restrictive rules around bathroom and locker room use, all of which impact the youth's ability to thrive in an academic environment on a daily basis.

Regarding academic achievement outcomes, at one time, girls had generally lower grades in STEM subjects (Eccles, 2004), but more recent research has found that girls currently out-score boys not only in all STEM subjects (O'Dea, Lagisz, Jennions, & Nakagawa, 2018) but in other school subjects as well (Voyer & Voyer, 2014). Gender differentials in grades are likely related to environmental fit between the school and students of a given gender (Eccles, 2004). Minority stress related to race (Eccles, 2004) and sexual minority status (Eccles & Roeser, 2011) has been found to be associated with lower grades. One study found that gender non-conforming youth reported lower grades than their gender conforming peers (Fenaughty, Lucassen, Clark, & Denny, 2019). Thus, the present study includes grades as an outcome variable and indicator of youth thriving in order to further explore the associations between gender and academic achievement.

In addition to academic achievement, self-efficacy is included in the present study as an outcome variable of interest. Self-efficacy has long been recognized as an essential element of human development (Bandura, 1982), as well as both a precursor and an indicator of thriving in positive youth development literature (e.g., Benson & C. Scales, 2009; Lerner et al., 2005; Masten, 2014). This quality has been conceptualized variously as personal power (Benson & Scales, 2009), confidence (Lerner et al., 2005), or simply self-efficacy (Masten, 2001). Research has found that males score higher than females on measures of positive youth development that indicate self-efficacy (Årdal, Holsen, Diseth, & Larsen, 2018; Conway, Heary, & Hogan, 2015). Although research on the relationship of gender non-conformity and self-efficacy is lacking, previous research has found that sexual minority youth experience lower feelings of self-efficacy, which can be improved with environmental supports, such as gay-straight alliance clubs at school (Russell, Muraco, Subramaniam, & Laub, 2009). The present study provides an opportunity to explore the relationships between gender and self-efficacy in a more nuanced manner than previous studies have done.

A final indicator of thriving included in the present study is the degree to which youth report having a caring adult in their lives. Having a caring non-parental adult at school with whom to engage in a supportive relationship makes thriving more likely and adverse mental health outcomes less likely for youth (Bowers et al., 2014; DuBois & Silverthorn, 2005; Eccles & Roeser, 2011; Scales, 2005; Theokas & Lerner, 2006). Relationships with caring adults both in the family and at school may be one of the most important environmental supports for fostering thriving outcomes and reducing adverse outcomes (Bowers et al., 2014). Previous research has found that females are more likely than males to say that they have a close relationship with a non-parental adult (Murphey, Bandy, Schmitz, & Moore, 2013), but less is known about the

presence of caring adults in the lives of TGNC youth. Adult mentorship through gay-straight alliances (which often welcome gender non-conforming youth) has been found to improve feelings of self-efficacy among sexual minority youth (Russell et al., 2009). Understanding the degree to which youth, and especially TGNC youth, report having a caring adult in their lives will provide information on a key aspect of these youth's context.

The Current Study

Taking these theoretical foundations together, the current study synthesizes these perspectives. Relational developmental systems theory provides an overarching framework for understanding the importance of the bidirectional influence of an individual and their context in development (Overton, 2013; Overton & Müller, 2012). Adolescence is a time of increased plasticity during which positive feedback from the environment is essential to support an individual in developing a positive identity, which in turn supports positive mental health and thriving outcomes (Erikson, 1968; Motti-Stefanidi, 2015). During adolescence, gender identity development becomes particularly salient (Natusuaki, et al., 2015). A youth who is developing a gender identity that does not conform to cultural norms is likely to experience contextual hostility to their gender non-conforming identity. Minority stress theory outlines the impact that a hostile environment may have on an individual (Meyer 2003, 2015), an impact that may be particularly damaging during the adolescent process of identity development. Past studies have found that youth with a gender identity that is stigmatized by the surrounding environment report more adverse outcomes on measures of mental health than youth whose gender identity is supported by the environment (e.g., Eisenberg et al., 2017; Perez-Brumer et al., 2017; Rider et al., 2018; Roberts et al., 2012; Toomey et al., 2018). The current study adds to that small but growing body of literature. In addition, this study addresses a gap in the literature that exists with

regard to gender non-conforming youth and outcomes that indicate thriving. The current study takes a strengths-inclusive approach, providing information not only on urgent mental health concerns (such as depressive symptoms, suicidal ideation, and suicide attempt), but also on positive outcomes that indicate youth thriving (such as emotional and mental wellbeing, academic achievement, self-efficacy, and having a caring adult at school).

The current study undertakes the project of constructing a portrait of the emotional and mental health and wellbeing of youth in Oregon as it relates to gender non-conforming identity. This study examines not only the impact that gender identity alone has on several measures of mental health and thriving, but also associations between categories of youth gender identity, youth gender presentation, and youth perception of others' understanding of their gender presentation as predictors of general emotional and mental wellbeing, academic achievement, self-efficacy, presence of a caring adult at school, depressive symptoms, suicidal ideation, and suicide attempt.

In order to isolate the association between gender and wellbeing outcomes, this study will control for other factors known to be associated with the study's outcomes of interest. Previous research has found associations between youth mental and emotional health and age, race/ethnicity, and socioeconomic status (SES) and thus these variables will be controlled for in all analyses. For example, suicide attempts and completions increase with adolescent age (Bridge, Goldstein, & Brent, 2006). The prevalence of depressive disorders rises between ages 12 and 20 (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Mojtabai, Olfson, & Han, 2016). Race has been shown to predict well-being outcomes in adolescence as well. For example, adolescent African-Americans experience increases in depressive symptoms as work to develop their racial identity while they are also becoming more aware of racial discrimination

(English, Lambert, & Ialongo, 2014). Asian-American youth and Latinx youth who do not feel fully acculturated to the U.S. experience higher levels of depressive symptoms (Patil, Porche, Shippen, Dallenbach, & Fortuna, 2018, Ríos-Salas & Larson, 2015). Non-Hispanic white girls in one study were the most likely to have experienced a major depressive episode in the last 12 months (Mojtabai et al., 2016). Finally, SES has also been found to be a risk factor for adverse mental health outcomes for adolescents. For example, a meta-analysis of the relationship between SES and developmental outcomes found a significant relationship between low SES and increased likelihood of experiencing depression (Letourneau, Duffett-Leger, Levac, Watson, & Young-Morris, 2011). In addition, a systematic review found that the likelihood of mental health problems among low-SES youth was two to three times that of youth from middle- or high-SES families (Reiss, 2013).

Previous research has also found associations between academic achievement, self-efficacy, and having a caring adult at school and age, race/ethnicity, and SES. For example, having a non-white race or low family income is associated with lower academic achievement, likely as a result of geographic and social stratification related to both race and income level, with low SES often compounding the detriment related to non-white racial identity (Gordon & Cui, 2018; Owens, 2018; Paschall, Gershoff, & Kuhfeld, 2018). Also, academic achievement has been shown to decrease with the transition to middle school and then to high school, as schools become larger and less personal, and grading becomes more strict (Eccles, 2004).

With regard to self-efficacy, research has found that having a non-dominant racial/ethnic identity is associated with lower feelings of self-efficacy, especially in the absence of understanding about structural injustice, known as critical consciousness (Clonan-Roy et al., 2016). One review of research found that self-efficacy findings varied widely with regard race,

ethnicity, and gender (Usher & Pajares, 2008), depending on how it was measured. Feelings of self-efficacy decrease as a youth ages, as a result of increasing congruence between imagined and actual ability (Muenks, Wigfield, & Eccles, 2018).

Although having a caring adult at school is important for positive mental health and thriving outcomes (Bowers et al., 2014), forming a relationship with a caring adult at school is complicated by the larger size of middle- and high schools, which has the effect of lowering the likelihood of forming those relationships as youth grow older (Eccles, 2004). A study by the Annie E. Casey Foundation found that black and Hispanic youth were less likely than white children to have a non-parental caring adult, and that youth from lower-income families were also less likely to say that they had a close relationship with a non-parental caring adult (Murphey et al., 2013).

Research Questions

This study has two research questions, both of which relate to the overarching theme: *How is gender identity related to wellbeing?* In the analyses for each of the questions, I controlled for grade, race-ethnicity, SES. In addition, to control for the nested nature of the data, each analysis includes county cluster, a rough indication of region, described below, as a control variable. Although rurality and urbanicity, or other factors related to geography might be related to the outcomes of interest in this study, this variable, for which 26 counties were grouped into four clusters to protect gender non-conforming youth from being identified, measures state geography in such broad terms that it is minimally informative.

The first research question is: *Are there direct associations between a youth's gender identity (female, male, and TGNC) and a) general emotional and mental health and wellbeing, b) academic achievement, c) self-efficacy, d) presence of a caring adult at school, e) depressive*

symptoms, f) suicidal ideation, or g) suicide attempt (see Figure 1)? Based on previous research, I hypothesize that youth gender identity will significantly predict each of these outcomes. Based on research demonstrating that youth who identify as TGNC are at risk for experiencing a range of negative outcomes (e.g., Eisenberg et al., 2017; Perez-Brumer et al., 2017; Rider et al., 2018; Roberts et al., 2012; Toomey et al., 2018), I expect to find that youth who identify as TGNC will report lower levels on variables associated with thriving (i.e., emotional and mental health and wellbeing, lower levels of academic achievement, self-efficacy, and presence of a caring adult at school) and higher likelihood of experiencing variables associated with risk (i.e., depressive symptoms, suicidal ideation, and suicide attempt) than their peers who identify as either male or female.

The second research question is: *Are there significant direct associations between gender identity, presentation of gender, and the youth's understanding of others' perception of their gender presentation when predicting a) general emotional and mental health and wellbeing, b) academic achievement, c) self-efficacy, d) presence of a caring adult at school, e) depressive symptoms, f) suicidal ideation, or g) suicide attempt (see Figure 2)? In addition, are there significant interactions between these three gender-related variables and these outcomes?*

Grounded in Erikson's theory of identity development (1968), this question takes into account the three interacting layers of the identity development process that he proposed: (1) the youth's internal sense of gender identity, which the youth constructs as they interact with the environment by (2) presenting their identity, and then (3) assessing others' response to their presentation. Minority stress theory (Meyer, 2003, 2015) suggests that if the identity presentation is not culturally acceptable, the negative response from others (whether proximal, i.e. family, friends, and teachers, or distal, i.e. laws, violent incidents in the news, or media messaging) will

provide feedback in the identity development process that leads to internalized stigma and identity concealment which, in turn, results in adverse outcomes for the individual.

Based on both of these theories, in the second research question I hypothesize that there will not only be significant direct effects, but also significant interactions between each combination of gender identity, gender presentation, and perception of others' evaluation of gender presentation. Specifically, I hypothesize that the relationship between a youth's gender identity and each of the outcome variables will vary depending on category of gender presentation the youth reports as well as the category of others' perception of gender presentation the youth reports. For females and males, I hypothesize that gender presentation and others' perceptions that align with gender identity (e.g., females who report feminine presentation and believe others perceive them as feminine) will be associated with more positive outcomes, and that mismatches between gender identity and either gender presentation or others' perception will be associated with more adverse outcomes. For TGNC youth, I hypothesize that their outcomes will vary by the category of self-presentation and others' perception that they report.

Figures

Figure 1. Direct effect of gender identity

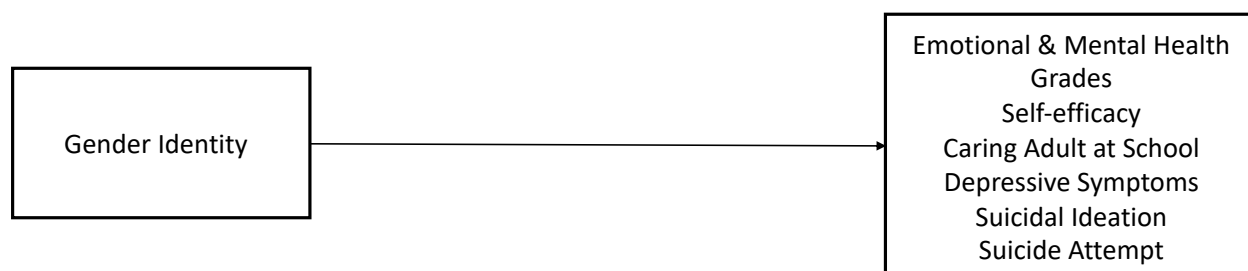
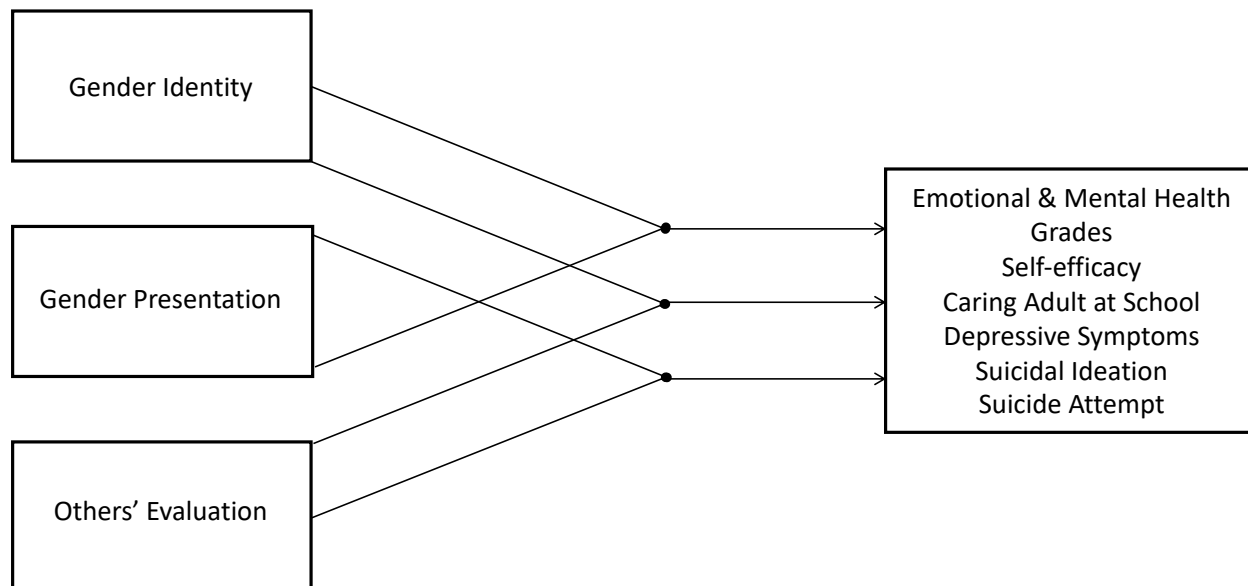


Figure 2. Two-way interactions between gender identity, gender presentation, and others' evaluation



Method

The Oregon Healthy Teens Survey (OHTS)

Data for this study were obtained from the Oregon Healthy Teens Survey (OHTS). The Oregon Health Authority (OHA) conducts the OHTS in school settings across the state of Oregon every other year. The purpose of the survey is to provide policy makers at the state and local levels with information on the status of youth development in Oregon by asking youth to respond to questions about individual characteristics and behaviors as well as about contextual assets. The survey includes 165 questions about basic demographics, physical and mental health status and behaviors, substance use and other risk behaviors, as well as the students' experience of physical violence and bullying. Policy-makers in Oregon view the survey as “fundamental to ensuring that young people arrive at adulthood with the skills, interests, assets, and health habits needed to live healthy, happy, and productive lives in caring relationships with other people”

(Oregon.gov/Oregon Healthy Teens Survey, n.d.). This study aims to analyze a segment of the data available in order to provide information that will aid that goal.

Participants

The 2017 OHTS surveyed 26,747 students (14,852 8th grade students; 11,895 11th grade students) across thirty-two counties in Oregon. Youth who identified as female made up 47.72% of the sample, with 46.36% identifying as male. Youth who identified as TGNC were 5.48% of the sample. Youth who identified their race/ethnicity as non-Hispanic White comprised 61.51% of the respondents, with 24.58% identifying as Hispanic/Latinx. Youth who indicated that they were non-Hispanic Asian, Pacific Islander or Black made up 10.10% of the respondents, with 2.97% of the youth identifying as non-Hispanic other or with multiple non-Hispanic race categories. When asked about receiving free or reduced-price lunch, 38.38% of the participants indicated that they did receive this benefit. In addition, 10.01% of youth in this sample scored “low” on the Family Affluence Scale (FASII), 33.28% of youth scored in the “middle” tier, and 56.71% scored in the “high” tier. For additional descriptive statistics associated with demographic variables of interest, see Table 1.

Procedure

To gather the sample, OHA stratified schools by county. Within each county, students were sampled in high schools proportionally to the size of the school within the county (i.e., a larger school would have a larger sample). In smaller counties, all high schools were selected and students within them sampled to meet a minimum number of 50 students per county. Middle schools were selected if they were feeder schools for the selected high schools. If a high school had more than one feeder middle school, one middle school was chosen at random. Schools, school districts, or counties may opt out of the survey (OHA, 2018). Prior to administering the

survey, OHA sent parents/guardians information about the survey, offering the option to refuse to have their youth participate. If the parent or guardian did not respond to the letter, the school assumed that the parent had given permission. Students were also allowed to opt out of participating in the survey. If they chose not to participate, or if parents did not allow participation, students were provided with an alternate activity during survey administration. Students completed the OHTS using paper surveys in classrooms during the school day. Administration of the survey was overseen by teachers who were trained as proctors. Responses on the survey were anonymous. Once students completed the survey, they turned it in to the proctor, who put it in an envelope that held all surveys for that class. Surveys were then sent to the OHA, data were aggregated, and OHA generated reports by county as well as a state-wide summary report. The survey was provided in either English or Spanish.

Counties and county clusters. To protect participant confidentiality, the Oregon Health Authority created clusters of counties to combine counties in which fewer than thirty students chose one of the gender non-conforming options on the gender identity question. As a result, twenty-six counties are grouped into four clusters. The remaining six counties each had more than thirty students who chose a gender non-conforming option and thus were not combined to form a cluster. To account for the nested effects of sampling students within counties or county clusters, the six county clusters and four remaining counties will also be included in the control variables, as one county cluster variable.

Measures

Demographics. The current study will include gender and gender presentation as predictor variables, controlling for grade, race/ethnicity, socio-economic status.

Gender, self, and others. In contrast to previous years, in which youth were only given the options of “male” or “female” to denote gender, the 2017 OHTS assessed gender using three questions. The item related to gender identity was expanded to include additional response options: “transgender,” “gender nonconforming/ genderqueer,” “gender fluid/not exclusively male or female,” “intersex/intergender,” “something else fits better,” “I am not sure of my gender identity,” and “I do not know what this question is asking.” Because of the small number of respondents, students who selected options other than male or female were combined into one response option represented by TGNC when data were aggregated and de-identified for public use purposes. Participants who chose “I am not sure” or “I do not know what this question is asking” were treated as missing values. In addition, youth were asked, “A person’s appearance, style, dress or the way they walk or talk may affect how people describe them. How do you see yourself?” and “A person’s appearance, style, dress or the way they walk or talk may affect how people describe them. How do you think other people at school would describe you?” These two questions each had the same response options: “Very feminine,” “Mostly feminine,” “Somewhat feminine,” “Equally feminine and masculine,” “Somewhat masculine,” “Mostly masculine,” “Very masculine,” “I am not sure,” and “I do not know what this question is asking.” For analyses, these responses were collapsed into “Feminine,” “Equally feminine and masculine,” and “Masculine.” Participants who selected “I’m not sure” or “I don’t know what this question is asking” were treated as missing. In this study, the question “How do you see yourself?” is interpreted as gender presentation, and is often shortened in the text and in the tables as “self.” The question “How do you think other people at school would describe you?” is interpreted as the youth’s evaluation of others’ perception of their gender presentation, and is often shortened in the text and in the tables as “others” or “others’ perception.” In addition, for the current study,

only the categories “Feminine,” “Equally feminine and masculine,” and “Masculine” are analyzed in the “self” and “others” variables.

Grade level. To assess grade, youth were asked, “In what grade are you?” Response options ranged from 7th grade to 12th grade, however, the survey was only administered to 8th and 11th graders with a final option of “ungraded or other grade.”

Race/Ethnicity. Ethnicity was determined with the question, “Are you Hispanic or Latino/Latina?” Responses were either yes or no. Race was assessed with the question, “What is your race? (Select one or more responses)” with the following options for response: “American Indian/Native American; Alaska Native; Asian Indian; Chinese; Japanese; Korean; Vietnamese; Filipino; Native Hawaiian; Other Pacific Islander; Black or African American; White; Other (Specify).”

Socio-economic status. SES was assessed with two variables. First, respondents answered the question, “Do you receive free or reduced-price lunches at school?” Possible responses were “Yes,” “No,” or “Don’t Know.” Secondly, respondents completed questions for the Family Affluence Scale II (FASII), an index that is widely used in population-based surveys of adolescents by the World Health Organization for assessing SES (Currie et al., 2008; Schnohr et al., 2008). This scale includes four variables. The first was, “Does your family own a car, van, or truck?” to which participants could respond “No,” “Yes, one,” or “Yes, two or more.” The next was, “Do you have your own bedroom for yourself?” with “No” or “Yes” as options for answering. Next was, “During the past 12 months, how many times did you travel away on vacation with your family?” Respondents could answer “Not at all,” “Once,” “Twice,” or “More than twice.” Finally, youth were asked, “How many computers does your family own?” to which

they could answer “None,” “One,” “Two,” or “More than two.” Based on responses, participants are assigned a score of Low, Middle, or High SES

Youth wellbeing. To develop a picture of youth wellbeing for youth participating in the OHTS, this study analyzed outcomes that indicate general positive emotional development as well as outcomes that may indicate either thriving (i.e., emotional and mental health, academic achievement, self-efficacy, and having a caring adult at school) or serious mental health challenges (i.e., depressive symptoms, suicidal ideation, and suicide attempt).

General emotional and mental health. Youth were asked to respond to the prompt, “Would you say that in general your emotional and mental health is...” with five possible response options: poor, fair, good, very good, or excellent. For analysis, each response was assigned a number from one to five, with “poor” equaling one and “excellent” equating to five, so that higher scores on this measure indicate more positive emotional and mental health.

Academic achievement. Youth were asked to report their grades in general as “mostly” A’s, B’s, C’s, D’s, or F’s. In addition, they could report that they received “none of these grades” or “not sure.” Student responses included .47% who answered that they were earning “none of these grades,” and 3.4% responded “not sure.” Responses of “none of these grades” or “not sure” were treated as missing.

Self-efficacy. Participants responded to the statement, “I can do most things if I try.” They had the option to choose one of four answers: “very much true,” “pretty much true,” “a little true,” and “not at all true.” For analysis, these answers were coded on a four-point scale, with “very much true” equal to four and “not at all true” equal to one.

Caring adult at school. Youth responded to the statement, “There is at least one teacher or other adult in my school that really cares about me.” The responses were the same as in the

self-efficacy question, above. Participants had the option to choose one of four answers: “very much true,” “pretty much true,” “a little true,” and “not at all true.” For analysis, these answers were coded on a four-point scale, with “very much true” equal to four and “not at all true” equal to one.

Depressive symptoms. Depressive symptoms were assessed with one question: “During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?” Youth could answer yes or no to this question. For analysis, the responses were coded as 1 for yes and 0 for no.

Suicidal ideation. To determine whether youth had experienced suicidal ideation in the past year, they were asked, “During the past 12 months, did you ever seriously consider attempting suicide?” Responses were either yes or no. For analysis, the responses were coded as 1 for yes and 0 for no.

Suicide attempt. Participants were asked, “During the past 12 months, how many times did you actually attempt suicide?” Youth responded on an ordinal scale: “0 times,” “1 time,” “2 or 3 times,” “4 or 5 times,” or “6 or more times.” Initial analysis of this item showed several empty or low-value cells at the higher-risk levels, so responses options were combined to create a dichotomous variable with 0 representing “no attempts” and 1 representing “one or more” suicide attempts.

Data Analyses

For the first research question, separate regression analyses were run for each of the seven outcomes: a) general emotional and mental health and wellbeing, b) academic achievement, c) self-efficacy, d) presence of a caring adult at school, e) depressive symptoms, f) suicidal ideation, and g) suicide attempt. Multiple regression was used in Mplus (Muthén &

Muthén, 2017) for outcomes a-d and logistic regression using SAS (SAS Institute, 2013) was used for outcomes e-g. In each analysis, grade, race/ethnicity, county or county cluster, and SES were included as control variables with gender identity as the predictor variable.

Analyses for the second research question were conducted using regression analyses to test whether direct effects among the three gender predictor variables as well as two-way interactions between them were significantly associated with each of the seven outcome variables. Specifically, interactions between (1) gender identity and gender presentation, (2) gender identity and others' evaluation of gender presentation, and (3) gender presentation and others' evaluation of gender presentation were included in each analysis, controlling for age, race/ethnicity, county or county cluster, and SES. Separate analyses were run including all variables and interaction terms for each outcome of interest: a) general emotional and mental health and wellbeing, b) academic achievement, c) self-efficacy, d) presence of a caring adult at school, e) depressive symptoms, f) suicidal ideation, and g) suicide attempt.

Missingness. Data related to missingness were analyzed using linear regression in Mplus for the continuous variables (general emotional and mental health and wellbeing, academic achievement, self-efficacy, and presence of a caring adult at school). Mplus uses Full Information Maximum Likelihood to estimate parameters and standard errors for missing data on continuous variables based on the non-missing data for each case, so the sample size for these four variables was equivalent to the overall sample size, $N = 26,747$.

The binary outcome variables for depressive symptoms, suicidal ideation, and suicide attempt were analyzed using logistic regression in SAS (version 3.7). When a categorical variable has missing information in SAS in a logistic or ordinal regression model, SAS drops the entire case with the missing information via listwise deletion. Listwise deletion has been shown

to be reasonably robust to missingness on both predictors and outcomes in logistic regression, especially in predicting logistic regression coefficients (Allison, 2014). As a result of the listwise deletion, the portion of the sample analyzed is different for each of the variables.

Missing values. Analyses were conducted to determine the rate of missing information for each gender-related variable (i.e., gender, self, other) as well as each outcome variable. Specifically, control variables were entered into a regression analyses to determine which (if any) predicted missingness on each gender-related variable. For each outcome variable, regression analyses were used to determine which control variables and gender-related variables predicted missingness. Most of the variables did not significantly predict missingness on any other variable, or predicted it only slightly. Of note, however, is that both youth who identify as female and youth who identify as TGNC were three times more likely than youth who identify as male to have missingness on the gender presentation variable (Female: OR = 3.16, 95% CI 2.54, 3.92; TGNC: OR = 3.32, 95% CI 2.49, 4.43). In addition, youth who reported that others perceive them as feminine were 6.10 times more likely than youth who reported that others perceive them as masculine to have missingness on the gender presentation variable (95% CI 4.49, 8.30). Additionally, youth who reported that others perceive them as equally masculine and feminine were 5.33 times more likely than youth who reported that others perceive them as masculine to have missingness on the gender presentation variable (95% CI 3.83, 7.40). Finally, the suicidal ideation item had 7.8% missingness, and the suicide attempt item had 8.1% of its values missing. For these outcomes, eighth graders were nearly twice as likely as eleventh graders not to have answered either of these items (OR = 1.96, 95% CI 1.74, 2.20). The gender presentation variable had 6.9% missingness, higher than either the gender identity variable (0.43%) or the others' perception variable (2.2%).

Table 1
Predictor Variables: Descriptive Statistics (N = 26,747)

Variables	%	N
Free/Reduced Lunch		
Yes	38.38	10,184
No	48.75	12,938
Don't Know	12.87	3,416
Family Affluence Scale		
Low	10.01	2,609
Middle	33.28	8,672
High	56.71	14,776
Race/Ethnicity		
Non-Hispanic Asian, PI, Black	10.10	2,604
Non-Hispanic White	61.51	15,852
Non-Hispanic Mult, no best	0.83	214
Hispanic/Latinx	24.58	6,335
Non-Hispanic Other	2.97	765
County or County Cluster		
Clackamas	10.05	2,689
Deschutes	5.66	1,514
Jackson	6.71	1,796
Lane	6.22	1,664
Multnomah	13.77	3,683
Washington	16.08	4,300
North Coast	7.51	2,009
Willamette Valley	14.88	3,981
Southwest	7.17	1,918
Central and Eastern	11.94	3,193
Grade		
8 th	55.53	14,817
11 th	44.47	11,868
Gender		
Female	47.72	12,765
Male	46.36	12,401
TGNC	5.48	1,465
Don't Know	0.04	116
Self-presentation of gender		
Feminine	34.05	8,480
Equal	9.15	2,280
Masculine	36.64	9,124
Don't Know/Not Sure	20.16	5,021
Others' perception of gender		
Feminine	36.31	9,497
Equal	7.95	2,080
Masculine	31.76	8,306
Don't Know/Not Sure	23.97	6,269

Results

Descriptive Statistics

Overall, youth reported a moderate level of emotional and mental health and wellbeing, with a sample average score of $M = 3.23$, $SD = 1.21$ on this five-point scale (5 = Excellent, 1 = Poor). For academic achievement, participants reported a relatively high average of $M = 4.04$, $SD = 1.01$, an overall “B” average on a scale in which 5 = A and 1 = F. Youth rated their self-efficacy at an average of $M = 3.31$, $SD = 0.69$ on a four-point scale with 1 = “not true at all” and 4 = “very much true.” Youth rated the presence of a caring adult at school on the same scale, with an average of $M = 3.11$, $SD = 0.94$. In response to the item on depressive symptoms, 31.10% (7,762 youth) of respondents replied that they had experienced depressive symptoms in the past year. Regarding suicidal ideation, 17.55% (4,328 youth) of respondents reported that they had considered suicide in the past year. Finally, 7.04% (1,882 youth) of respondents reported that they had attempted suicide one or more times in the past year. For additional descriptive statistics associated with outcome variables of interest, see Tables 2 and 3.

Research Question One (Direct Effect of Gender Identity)

Emotional and mental health. Overall, the model of gender identity predicting emotional and mental health was significant, $\chi^2(20, N = 26,747) = 2496.34, p < .001$. Males averaged a score of 3.83 (out of 5) ($p < .001$). Females scored just over a half point lower than males, ($B = -0.54, p < .001$). TGNC youth scored nearly a full point lower than males ($B = -0.92, p < .001$) and these differences were significant (see Table 7). Of the control variables, the most notable outcome was for the youth who scored either Low ($B = -0.36, p < .001$) or Middle ($B = -0.22, p < .001$) on the Family Affluence Scale, which lowered youth outcomes for emotional and mental health (see Table 8).

Grades. The model of gender identity predicting grades was significant, $\chi^2(20, N=26,747) = 2909.21, p < .001$. Males averaged a score of 4.29 ($p < .001$). Females scored significantly higher than males, $B = 0.31, p < .001$. TGNC youth scored slightly but significantly lower than males, $B = -0.15, p < .001$ (see Table 7). Several control variables were significantly related to grades (see Table 9). Most notable was the Family Affluence scale, for which youth who scored Low reported nearly a half grade lower than their more affluent peers ($B = -0.47, SE = 0.03, p < .001$). Youth who scored in the Middle range of the Family Affluence Scale reported nearly one third of a grade lower ($B = -0.27, p < .001$). Youth who receive free or reduced lunch also reported one third of a grade lower ($B = -0.33, p < .001$), as did youth who were not sure whether they received free or reduced lunch ($B = -0.30, p < .001$). Finally, youth who reported being multi-racial reported lower grades ($B = -0.22, p < .001$) as did youth who reported being Latinx ($B = -0.18, p < .001$).

Self-efficacy. The model predicting self-efficacy was significant, $\chi^2(20, N=26,747) = 1026.92, p < .001$. Males averaged a score of 3.46 (out of 4) ($p < .001$). Females scored slightly lower than males ($M = 3.35, B = -0.11$) and this difference was significant ($p < .001$). TGNC youth were predicted to score a third of a point lower than males ($M = 3.12, B = -0.34, p < .001$) (see Table 7). Scoring Low ($B = -0.24, p < .001$) or Middle ($B = -0.14, p < .001$) on the Family Affluence Scale also significantly predicted lower self-efficacy scores (see Table 10).

Caring adult at school. The overall model predicting having a caring adult at school was significant, $\chi^2(20, N=26,747) = 813.31, p < .001$. Males were predicted to score 3.17 (out of 4) on this variable ($p < .001$). Females reported a similar score ($B = 0.003, p = .81$). TGNC youth reported a significantly lower score than males ($M = 2.93, B = -0.24, p < .001$) (see Table 7).

Interestingly, scoring Low on the Family Affluence Scale also predicted reporting a lower level of a caring adult at school ($B = -0.29, p < .001$), as did scoring Middle on this scale ($B = -0.18, p < .001$). Being multi-racial was also significant in predicting a lower level of caring adult at school ($B = -0.27, p < .001$). Finally, identifying as either Latinx ($B = -0.13, p < .001$) or Other ($B = -0.15, p < .001$) on race/ethnicity also predicted a lower level of caring adult at school (see Table 11).

Depressive symptoms. The overall model predicting depressive symptoms was significant, $\chi^2(20, N = 23,690) = 1405.529, p < .001$. Males had a 25% probability of reporting depressive symptoms, while females had a 45% probability. TGNC youth had a 60% probability of reporting depressive symptoms. With males as the reference group, females had an odds ratio of 2.46 ($p < .001$), meaning that they were 2.46 times more likely than males to answer that they had been sad for at least two weeks in a row during the last year. With males as the reference group, TGNC youth had an odds ratio of 4.55 ($p < .001$), meaning that they were 4.55 times more likely than males to report that they had been sad for at least two weeks in a row during the last year (see Table 7). Reporting Low on the Family Affluence Scale was significantly associated with a 1.60 ($p < .001$) times higher likelihood of reporting depressive symptoms than scoring High on this scale (see Table 13).

Suicidal ideation. The overall model predicting suicidal ideation was significant, $\chi^2(20, N = 23,126) = 1011.20, p < .001$. Males had a 12% probability of reporting that they had considered suicide within the last year, while females had a 25% probability. TGNC youth had a 43% probability of reporting this outcome. With males as a reference group, females had an odds ratio of 2.40 ($p < .001$), meaning that they were 2.40 times more likely than males to answer that they had considered suicide in the last twelve months. With males as a reference group, TGNC

youth had an odds ratio of 5.53 ($p < .001$), meaning that they were 5.53 times more likely than males to answer that they had considered suicide in the last twelve months (see Table 7). Scoring Low on the Family Affluence Scale was once again associated with a 1.60 ($p < .001$) times higher likelihood of reporting suicidal ideation than scoring High on this scale (see Table 15).

Suicide attempt. The overall model predicting suicidal ideation was significant, $\chi^2(20, N=23,034) = 653.46, p < .001$. Compared to males, who had a 5% probability of reporting one or more suicide attempts in the last year as a reference group, females had an odds ratio of 2.37 ($p < .001$), meaning that they were 2.37 times more likely than males to report at least one suicide attempt in the last year. Females had an 11% probability of reporting this outcome. TGNC youth had a probability of 25% of reporting at least one suicide attempt in the past year, and an odds ratio of 6.13 ($p < .001$) compared to males, meaning that they were 6.13 times more likely than males to report at least one suicide attempt (see Table 7). Most of the control variables did not significantly predict an outcome for suicide attempt in the last year. Eleventh graders, however, were slightly but significantly less likely than eighth graders to report a higher-risk category of suicide attempt, with an odds ratio of 0.78 ($p < .001$). In addition, youth who scored Low on the Family Affluence Scale were 1.51 ($p < .001$) times more likely than youth who scored high on this measure to report at least one suicide attempt in the last year (see Table 17).

Research Question Two (Gender Identity, Self Perception, Other Perception, and Interactions)

Emotional and mental health. The overall model with the addition of interaction terms predicting emotional and mental health was significant, $\chi^2(36, N=26,747) = 3111.78, p < .001$. Chi-square difference testing showed that the effects for gender, self, others, and the two-way

interactions among these variables were significant in predicting emotional and mental health (see Table 18). Youth who identified as female ($B = -0.65, p < .001$) and youth who identified as TGNC ($B = -0.65, p < .001$) reported lower levels of emotional and mental health than Males. Youth whose self-presentation was either feminine ($B = -0.44, p < .001$) or equally feminine/masculine (“equal”) ($B = -0.58, p < .001$) reported lower levels of emotional and mental health than those who reported self-presentation as masculine. Youth who believed that others perceived them as either feminine ($B = -0.42, p < .001$) or equal ($B = -0.36, p < .001$) reported lower levels of emotional and mental health than those who reported others’ perception as masculine. Among the significant gender**self* interactions, the interaction effect of identifying as Female/Feminine (that is, with a gender identity of female and a self-presentation of feminine) predicted higher levels of emotional and mental health ($B = 0.38, p < .001$), as did the interaction effect of identifying as Female/Equal ($B = 0.21, p < 0.05$). The interaction effect of identifying as TGNC/Equal (that is, with a gender identity of TGNC and a self-presentation of equal) predicted lower scores on this item ($B = -0.26, p < 0.05$). Among the significant gender**others* interactions, identifying as Female/Feminine (that is, with a gender identity of female and others’ perception of feminine) predicted a higher emotional and mental health score ($B = 0.21, p < 0.05$), though the interaction effect of identifying as TGNC/Equal (that is, with a gender identity of TGNC and an others’ perception of Equal) predicted a lower score ($B = -0.29, p < .05$). Finally, all levels of the *self***others* interaction were significant. Identifying as Equal/Equal, that is, self-presenting as equal with others’ perception also equal, predicted a higher score for youth by three-quarters of a point ($B = 0.72, p < .001$) (see Table 19).

Conditional means were calculated for all combinations of gender, self, and others, using the equation *emotional/mental health* = $\beta_0 + \beta_1 \textit{gender} + \beta_2 \textit{self} + \beta_3 \textit{others} + \beta_4 \textit{gender*self} +$

$\beta_5 \text{ gender*others} + \beta_6 \text{ self*others}$ (see Table 20). The five highest means all had Male gender identity with various combinations of self and others and ranged from 3.87 ($p < .001$) for Male/Masculine/Masculine (that is, a youth who identifies as Male, says that they present as Masculine, and reports that others perceive them as Masculine) to 3.44 ($p < .001$) for Male/Feminine/Feminine. The lowest five means all had TGNC gender identity with various combinations of self and others and ranged from 2.58 ($p < .001$) for TGNC/Masculine/Equal to 2.23 ($p < .001$) for TGNC/Equal/Feminine.

Using a Bonferroni-adjusted alpha level for multiple comparisons ($.05/8 = .00625$) to compare mean differences within a gender identity, all comparisons within all three gender identities were significant (see Table 21). Within the Female gender identity group of means, all means that varied from Female/Feminine/Feminine were significantly lower than Female/Feminine/Feminine. The lowest two combinations for Female gender identity were for Female/Equal/Masculine ($\Delta = -0.53, p < .001$) and Female/Masculine/Equal ($\Delta = -0.61, p < .001$). The Δ in these cases indicates the difference from the mean for Female/Feminine/Feminine, and the p value indicates the significance for that difference. Within the Male gender identity group of means, all means that varied from Male/Masculine/Masculine were significantly lower than Male/Masculine/Masculine. The two lowest combinations for Male gender identity were Male/Equal/Feminine ($\Delta = -0.75, p < .001$) and Male/Equal/Masculine ($\Delta = -0.58, p < .001$). As with the means for the Female gender identity group, the Δ in these cases indicates the difference from the mean for Male/Masculine/Masculine, and the p value indicates the significance for that difference. For TGNC gender identity, there is not a parallel to the Female/Feminine/Feminine or Male/Masculine/Masculine reference groups. I chose to use TGNC/Masculine/Masculine as a reference group because this group had the highest mean of the youth who identified as TGNC

($M = 3.22, p < .001$). Within this group, TGNC/Equal/Feminine (i.e. TGNC gender identity, self-presentation Equal, and others' perception as Feminine) had the largest difference from TGNC/Masculine/Masculine, at nearly a full point lower ($\Delta = -0.99, p < .001$).

TGNC/Equal/Masculine was also much lower ($\Delta = -0.84, p < .001$), as were TGNC/Equal/Equal ($\Delta = -0.76, p < .001$), and TGNC/Feminine/Equal ($\Delta = -0.72, p < .001$). Of the control variables, scoring Low ($B = -0.35, p < .001$) or Middle ($B = -0.21, p < .001$) on the Family Affluence Scale or being in eleventh grade ($B = -0.30, p < .001$) significantly predicted lower scores relative to High affluence and being in eighth grade, respectively (see Table 19).

Grades. The overall model with the addition of interaction terms predicting grades was significant, $\chi^2(32, N = 26,747) = 3321.27, p < .001$. Chi-square difference testing showed that the effects for gender, self, the interaction gender*self, and the interaction self*others were significant (see Table 22). The effects for others and gender*others were not significant.

Youth who identified as female ($B = 0.10, p < .001$) were predicted to have slightly, but significantly, higher grades. Youth who identified as TGNC ($B = -0.20, p < .001$) reported lower grades than Males. Youth whose self-presentation was either feminine ($B = -0.33, p < .001$) or equally feminine/masculine (“equal”) ($B = -0.15, p < .001$) were predicted to have lower grades than those who reported self-presentation as masculine. Among the significant interactions, the interaction effect for gender*self of identifying as Female/Feminine (that is, with a gender identity of female and a self-presentation of feminine) predicted higher grades ($B = 0.44, p < .001$), as did the interaction effect of identifying as TGNC/Feminine ($B = 0.48, p < 0.05$) (see Table 23).

Conditional means were calculated for all combinations of gender identity, self, others, and all significant interactions, using the equation $grades = \beta_0 + \beta_1 gender + \beta_2 self + \beta_3 others$

+ β_4 *gender*self* + β_6 *self*others* (see Table 24). The highest five means all had female gender identity with various combinations of self and others and ranged from 4.67 ($p < .001$) for Female/Feminine/Feminine to 4.42 ($p < .001$) for Female/Equal/Masculine. The lowest two means for grades were Male/Feminine/Equal ($M = 3.87, p < .001$) and Male/Feminine/Masculine ($M = 3.96, p < .001$). The next three lowest were for a TGNC gender identity. TGNC/Masculine/Equal ($M = 4.05, p < .001$), TGNC/Masculine/Masculine ($M = 4.09, p < .001$), and TGNC/Masculine/Feminine ($M = 4.12, p < .001$) all scored similarly. In fact the next several means for grades are very similar. Male/Masculine/Masculine scores roughly in the middle of these means ($M = 4.29, p < .001$).

Means comparisons for grades, using a Bonferroni-adjusted alpha level for multiple comparisons ($.05/8 = .00625$) show that most of the means within gender identity for Males and TGNC youth are not significantly different from the reference group for that gender identity (see Table 25). Within the Female gender identity, however, all youth with deviations on self-presentation or others' perception from Female/Feminine/Feminine (that is, female gender identity, feminine self-presentation, and others' perception as feminine) report significantly lower grades. Most of these differences are around a quarter of a grade, with a few being less, and with Female/Masculine/Equal being the largest difference ($\Delta = -0.32, p < .001$). In the male gender identity group, most of the means are not significantly different from Male/Masculine/Masculine. The two exceptions are Male/Feminine/Equal ($\Delta = -0.42, p < .001$) and Male/Feminine/Masculine ($\Delta = -0.33, p < .001$). In the TGNC gender identity group, the only mean that is different from the reference group of TGNC/Masculine/Masculine is TGNC/Feminine/Feminine, which is one third of a point higher than the reference group ($\Delta = 0.32, p < .001$).

Of the control variables, answering “yes” ($B = -0.30, p < .001$) or “don’t know” ($B = -0.28, p < .001$) for free/reduced lunch was significantly related to lower outcomes for grades, as was scoring Low ($B = -0.46, p < .001$) or Middle ($B = -0.26, p < .001$) on the Family Affluence Scales (see Table 23).

Self-efficacy. The overall model with the addition of interaction terms predicting self-efficacy was significant, $\chi^2(36, N = 26,747) = 1203.19, p < .001$. Chi-square difference testing showed that all effects for gender, self, others, and the two-way interactions among these variables were significant (see Table 26). Youth who identified with a female gender identity were predicted to score one-quarter point lower than males ($B = -0.24, p < .001$), as were youth who identified with a TGNC gender identity ($B = -0.25, p < .001$). Feminine gender self-presentation ($B = -0.17, p < 0.01$) and equal gender self-presentation ($B = -0.19, p < .001$) have similar effects to each other on self-efficacy. Likewise, others’ perception as feminine ($B = -0.16, p < .001$) or as equal ($B = -0.18, p < .001$) have similar effects to each other. The interaction effect between female gender identity and feminine self-presentation is positive ($B = 0.16, p = 0.016$), as is the interaction between female gender identity and equal self-presentation ($B = 0.16, p < .001$). These combinations also have small but significant effects within the gender*others interaction, with Female/Feminine ($B = 0.11, p = 0.034$) having a similar effect to Female/Equal ($B = 0.10, p = 0.030$). All of the interactions between levels of self and others had a positive impact on the level of self-efficacy that a youth reported, with Feminine/Feminine ($B = 0.23, p < .001$) and Equal/Equal ($B = 0.24, p < .001$) predicting the strongest effect (see Table 27).

Conditional means were calculated for all combinations of gender, self, and others, using the equation $self\text{-}efficacy = \beta_0 + \beta_1\text{ gender} + \beta_2\text{ self} + \beta_3\text{ others} + \beta_4\text{ gender*self} +$

$\beta 5$ *gender*others* + $\beta 6$ *self*others* (see Table 28). The largest mean was for Male/Masculine/Masculine ($M = 3.47, p < .001$), followed by Female/Feminine/Feminine ($M = 3.40, p < .001$). The lowest means were all reported by youth in the TGNC gender identity category, with the lowest being for TGNC/Equal/Feminine ($M = 2.84, p < .001$). The highest within the TGNC gender identity category was 3.22 ($p < .001$), for TGNC/Masculine/Masculine. Apart from these two extremes, youth in the TGNC gender category reported very similar scores, ranging from 2.97 ($p < .001$) for TGNC/Equal/Masculine to 3.06 ($p < .001$) for TGNC/Feminine/Feminine.

Using a Bonferroni-adjusted alpha level for multiple comparisons ($.05/8 = .00625$) to compare mean differences within a gender identity, most comparisons within each of the three gender identities were significant (see Table 29). Within the female gender identity group, Female/Masculine/Equal youth reported the largest difference from the Female/Feminine/Feminine reference group ($\Delta = -0.24, p < .001$). Only the means for Female/Feminine/Equal ($\Delta = -0.09, p = 0.043$) and Female/Equal/Equal ($\Delta = -0.03, p = 0.222$) were not significantly different from the Female/Feminine/Feminine reference group. Within the Male gender identity group, most of the categories are also significantly lower than the reference group of Male/Masculine/Masculine. The largest difference is for Male/Equal/Feminine ($\Delta = -0.28, p < .001$). The Male/Equal/Masculine ($\Delta = -0.19, p < .001$) and Male/Masculine/Equal ($\Delta = -0.18, p < .001$) groups have similar differences from the Male/Masculine/Masculine reference group. Within the TGNC gender identity category, most of the categories are significantly lower than the reference group of TGNC/Masculine/Masculine. The largest difference is for TGNC/Equal/Feminine ($\Delta = -0.38, p < .001$). TGNC/Equal/Masculine youth report the next-largest difference ($\Delta = -0.25, p < .001$). Of the control variables, scoring Low ($B = -0.23, p$

<.001) or Middle ($B = -0.13, p <.001$) predicted significantly lower scores on self-efficacy than scoring High (see Table 27).

Caring adult at school. The overall model with the addition of interaction terms predicting the presence of a caring adult at school was significant, $\chi^2(28, N = 26,747) = 925.47, p <.001$. Chi-square difference testing showed that only the effects of gender identity and the self*others interaction were significant (see Table 30). Youth who identified as female reported slightly lower levels than males of caring adult at school ($B = -0.10, p <.001$) (see Table 31). TGNC youth were predicted to report one quarter-point lower scores than males ($B = -0.25, p <.001$). The interaction effect for the category of Feminine/Feminine self*others was positive ($B = 0.21, p = 0.002$) as was the interaction effect for the self*others category of Equal/Equal ($B = 0.20, p = 0.0010$) (that is, Feminine self-presentation with Feminine others' perception, and Equal self-presentation with Equal others' perception, respectively). The Feminine/Equal interaction effect was also positive ($B = 0.17, p = 0.0300$).

Conditional means were calculated for each combination of significant effects, using the equation $caring\ adult = \beta_0 + \beta_1\ gender + \beta_2\ self + \beta_3\ others + \beta_4\ self*others$ (see Table 32). Of the five largest means, four are for youth with a male gender identity with all pairings of Feminine of Equal for the self and others variables. The Male/Feminine/Feminine (that is, Male gender identity, with Feminine self-presentation, and others' perception as Feminine) combination reports the highest score ($M = 3.32, p <.001$). The one mean in the top five that is not associated with a male gender identity is Female/Feminine/Feminine ($M = 3.22, p <.001$). Of the five smallest means, all are associated with TGNC gender identity, and all have Masculine on either the self or the others variable, or on both. The lowest mean is for TGNC/Masculine/Equal ($M = 2.86, p <.001$).

Means within gender identities were compared, using a Bonferroni-adjusted alpha level for multiple comparisons ($.05/8 = .00625$) (see Table 33). Within the female gender identity, any deviation from Female/Feminine/Feminine lowered a youth's reported score of having a caring adult at school. The largest differences were around one-fifth of a point:

Female/Masculine/Equal ($\Delta = -0.21, p < .001$), Female/Equal/Masculine ($\Delta = -0.19, p < .001$), Female/Feminine/Masculine ($\Delta = -0.21, p < .001$), and Female/Masculine/Feminine ($\Delta = -0.17, p < .001$) all had similar differences from Female/Feminine/Feminine. Within the male gender identity, only two combinations were significantly different from Male/Masculine/Masculine. These were Male/Feminine/Feminine ($\Delta = 0.15, p < .001$), and Male/Equal/Equal ($\Delta = 0.10, p < .001$). Similarly, only two combinations were significantly different from TGNC/Masculine/Masculine within the TGNC gender identity. These were TGNC/Feminine/Feminine ($\Delta = 0.15, p < .001$), and TGNC/Equal/Equal ($\Delta = 0.10, p < .001$). Of the control variables, scoring Low ($B = -0.28, p < .001$) or Middle ($B = -0.17, p < .001$) on the Family Affluence Scale predicted significantly lower scores related to having a caring adult at school than youth who scored High on this scale. In addition, reporting a multiracial racial/ethnic identity ($B = -0.26, p < .001$) predicted a lower score in comparison to reporting being white.

Depressive Symptoms. The overall model with the addition of interaction terms predicting depressive symptoms was significant, $\chi^2(47, N = 22,031) = 1835.93, p < .001$. All of the effects for the gender variables and their interactions were significant except for others' perception of gender presentation (see Table 34).

To determine differences of gender identities at varying levels of self-presentation and others' perception of presentation, two-way interactions were compared to the reference group of Male/Masculine for the gender*self and gender*others interactions, and Masculine/Masculine

for the self*others interactions. To correct for possible Type I error, a Bonferroni-adjusted alpha level for multiple comparisons ($.05/8 = .00625$) was used to determine significance. The gender*self interaction showed the widest range of odds ratios (see Table 37). Within the TGNC gender identity, youth who identified as TGNC/Feminine (that is, TGNC gender identity with self-presentation of feminine) had a 70% probability of reporting depressive symptoms, with an odds ratio of 5.49, $p < .001$, compared to Male/Masculine youth, who had a 30% probability of reporting depressive symptoms, meaning that youth in the TGNC/Feminine group were 5.49 times more likely than Male/Masculine youth to report depressive symptoms. TGNC/Equal youth had an 80% probability of reporting depressive symptoms, and were 9.50 times ($p < .001$) more likely than Male/Masculine youth to report depressive symptoms. TGNC/Masculine youth had a 57% probability of reporting depressive symptoms, and were 3.10 times ($p < .001$) more likely than Male/Masculine youth to do so. Within the female gender identity, there was also variation among the levels of self-presentation of gender. Female/Feminine youth had a 51% probability of reporting depressive symptoms and were 2.42 times ($p < .001$) more likely to do so than Male/Masculine youth. Female/Equal youth had a 59% probability of reporting depressive symptoms and were 3.34 times ($p < .001$) more likely to do so than Male/Masculine youth. Female/Masculine youth had similar results to the Female/Equal group. These youth had a 60% probability of reporting depressive symptoms, and were 3.53 times ($p < .001$) more likely than the Male/Masculine group to do so.

The range of odds ratios was smaller for the gender*others interaction (see Table 38). Youth who identify as Male/Masculine (that is, gender identity of male with others' perception as masculine) had a 37% probability of reporting depressive symptoms. Female/Feminine youth had a 53% probability of reporting depressive symptoms, making them 1.93 times ($p < .001$)

more likely than Male/Masculine youth to do so. Female/Equal and Female/Masculine youth each had a 61% probability of reporting depressive symptoms, with odds ratios of 2.68, $p < .001$ and 2.67, $p < .001$ respectively, compared to Male/Masculine. For TGNC youth, variation among the categories of others' perception predicted a large difference in their likelihood of reporting depressive symptoms. TGNC/Equal youth in this interaction had the highest probability (72%) of reporting depressive symptoms. These youth were 4.39 times ($p < .001$) more likely than Male/Masculine youth to do so. TGNC/Masculine youth had a 66% probability reporting depressive symptoms. Youth in this TGNC/Masculine category were 3.33 times ($p < .001$) more likely than Male/Masculine youth to report depressive symptoms. Finally, TGNC/Feminine youth had a 69% probability of reporting depressive symptoms and were 3.90 times ($p < .001$) more likely than Male/Masculine youth to do so.

For the self*others interaction (see Table 39), the Masculine/Masculine group (that is, self-presentation of gender as masculine, and others' perception of gender as masculine) had the lowest probability of reporting depressive symptoms, at 38%. Among those who present as feminine, youth who identified as Feminine/Masculine had the highest probability of reporting depressive symptoms, at 68%, and were 3.43 times ($p < .001$) more likely than Masculine/Masculine youth to report depressive symptoms. Among youth who present as equal, the Equal/Feminine group had the highest probability of reporting depressive symptoms, at 67%, and were 3.27 times ($p < .001$) more likely than the Masculine/Masculine group to report depressive symptoms. Of the control variables, a Low score on the Family Affluence Scale predicted significantly greater odds of depressive symptoms than a High score (OR = 1.55, $p < .001$) (see Table 36).

Suicidal ideation. The overall model with the addition of interaction terms predicting suicidal ideation was significant, $\chi^2(47, N = 21,525) = 1329.12, p < .001$. All of the effects of the gender variables and their interactions were significant in this model (see Table 40).

To determine differences within gender identities at varying levels of self-presentation and others' perception of presentation, two-way interactions were compared to the reference group of Male/Masculine for the gender*self and gender*others interactions, and Masculine/Masculine for the self*others interactions. To correct for possible Type I error, a Bonferroni-adjusted alpha level for multiple comparisons ($.05/8 = .00625$) was used to determine significance. As with depressive symptoms, the gender*self interaction showed the widest range of odds ratios related to suicidal ideation (see Table 43). Within the TGNC gender identity, youth who identified as TGNC/Feminine (that is, TGNC gender identity with self-presentation of feminine) had a 49% probability of reporting suicidal ideation, with an odds ratio of 5.61, $p < .001$, compared to Male/Masculine youth, who had a 15% probability of reporting suicidal ideation. TGNC/Equal youth had an 61% probability of reporting suicidal ideation, and were 9.17 times ($p < .001$) more likely than Male/Masculine youth to report suicidal ideation. TGNC/Masculine youth had a 43% probability of reporting suicidal ideation, and were 4.32 times ($p < .001$) more likely than Male/Masculine youth to do so. Within the female gender identity, there was also variation among the levels of self-presentation of gender. Female/Feminine youth had a 31% probability of reporting suicidal ideation and were 2.56 times ($p < .001$) more likely to do so than Male/Masculine youth. Female/Equal youth had a 36% probability of reporting suicidal ideation and were 3.23 times ($p < .001$) more likely to do so than Male/Masculine youth. Female/Masculine youth had a 43% probability of reporting suicidal ideation, and were 4.47 times ($p < .001$) more likely to do so. Youth in the male gender identity

category showed somewhat less variation by gender presentation. Youth who identified as Male/Feminine had a 30% probability of reporting suicidal ideation, which made them 2.44 times ($p = 0.006$) more likely than Male/Masculine youth to do so. Male/Equal youth had a probability of 25% of reporting suicidal ideation, which made them 1.90 times ($p = 0.001$) more likely to have done so.

The range of odds ratios was smaller for the gender*others interaction (see Table 44). However, the differences among TGNC youth at different levels of others' perception of gender is notable. TGNC/Masculine youth in this interaction (that is, youth who identify as TGNC and who others perceive as masculine) have a 49% probability of reporting suicidal ideation, which gives them an odds ratio of 3.66, $p < .001$ compared to Male/Masculine youth, who have a 21% probability of reporting suicidal ideation. TGNC/Equal youth have a 56% probability of reporting suicidal ideation, and are 4.87 times ($p < .001$) more likely than Male/Masculine youth to do so.

Among the self*others interactions, youth who identified as Feminine/Feminine (that is, feminine self-presentation of gender and others' perception of gender as feminine), with a probability of 28%, were not statistically more likely to report suicidal ideation than youth who identified as Masculine/Masculine, who had a probability of 23% (see Table 45). The categories that were significantly different (using the Bonferroni-adjusted alpha of $.05/8 = .00625$) from Masculine/Masculine in the self*others interaction were the categories that involved Equal self-presentation, all of which predicted higher likelihood of suicidal ideation than the Masculine/Masculine category, and the Masculine/Equal category, with a 38% probability of reporting suicidal ideation, and an odds ratio of 2.12, $p < .001$. Youth who reported Equal/Equal in this interaction had a 33% probability of reporting suicidal ideation, and were 1.72 times (p

<.001) more likely than Male/Masculine to do so. Youth who reported that they were Equal/Feminine had a probability of reporting suicidal ideation of 44%, with an odds ratio of 2.72, $p < .001$, compared to Masculine/Masculine youth. Similarly, youth who reported Equal/Masculine in these categories had a probability of reporting suicidal ideation of 43% and an odds ratio of 2.61, $p < .001$, compared to Masculine/Masculine youth. Of the control variables, a Low score on the Family Affluence Scale predicted greater odds of suicidal ideation (OR = 1.56, $p < .001$), compared to High on this scale (see Table 42).

Suicide attempt. The overall model with the addition of interaction terms predicting suicide attempt was significant, $\chi^2(47, N = 21,437) = 834.56, p < .001$. Only the effects for gender identity, gender**self*, and *self**others were significant (see Table 46).

To determine differences within gender identities at varying levels of self-presentation and others' perception of presentation, two-way interactions were compared to the reference group of Male/Masculine for the gender**self* and to the Masculine/Masculine reference group for the *self**others interaction (see Table 49). To minimize Type I error, a Bonferroni-adjusted alpha level for multiple comparisons ($.05/8 = .00625$) was used to determine significance. Within the TGNC gender identity group, youth who presented as feminine had a 29% probability of reporting that they had attempted suicide at least once in the past year, and had an odds ratio of 6.47, $p < .001$ compared to Male/Masculine youth, who had a 6% probability of reporting at least one suicide attempt in the past year. TGNC youth who reported presenting as equal had a 34% probability of reporting one or more suicide attempts over the past year, with an odds ratio of 8.30, $p < .001$ compared to Male/Masculine youth. TGNC/Masculine youth had a 24% probability of reporting at least one suicide attempt over the past year, with an odds ratio of 4.92, $p < .001$ compared to Male/Masculine youth. Within the Female gender identity,

Female/Feminine youth had a 14% chance of reporting one or more suicide attempts over the past year, with an odds ratio of 2.59, $p < .001$, compared to Male/Masculine youth. Female/Equal youth had a 17% chance of reporting one or more suicide attempts in the last year, with an odds ratio of 3.32, $p < .001$ compared to Male/Masculine youth. Female/Masculine youth reported suicide attempt rates at levels comparable to TGNC youth: the Female/Masculine group had a 25% probability of reporting one or more suicide attempts in the past year, with an odds ratio of 5.34, $p < .001$ compared to Male/Masculine youth. Within the male gender identity, Male/Equal was not significantly different than Male/Masculine, but Male/Feminine youth reported a probability of suicide attempt in the past year of 17%, and were 3.15 ($p < .001$) times more likely than the Male/Masculine group to endorse this outcome.

For the self*others interaction, the Feminine/Masculine category (that is, self-presentation as Feminine with others' perception as Masculine) had the most notable variation (28% probability, OR = 3.44, $p < .001$) from the Masculine/Masculine reference group, which reported a 10% probability of reporting one or more suicide attempts in the past year (see Table 50). In addition, the Masculine/Feminine group had a 24% probability of reporting a suicide attempt within the past year, with an odds ratio of 2.85 ($p < .001$) compared to the Masculine/Masculine group. Of the control variables, a Low score on the Family Affluence Scale predicted greater odds of suicidal attempt (OR = 1.41, $p < .001$), compared to High on this scale (see Table 48).

Tables

Table 2
Continuous Outcome Variables: Descriptive Statistics (N = 26,747)

	<i>M</i>	<i>SD</i>	Range
Emotional and Mental Health	3.23	1.21	1 - 5
Caring Adult at School	3.11	0.94	1 - 4
Self-Efficacy	3.31	0.69	1 - 4

Grades	4.04	1.01	1 – 5
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Table 3
Binary Outcome Variables: Descriptive Statistics

	<i>N</i>	missing	<i>M</i>	% yes	Range
Depressive symptoms	25,271	1,476	0.31	31.10	0-1
Suicidal ideation	24,662	2,083	0.18	17.55	0-1
Suicide attempt	24,579	2,168	0.07	7.04	0-1

Table 4
Female: Self-presentation and others' perception (N = 12,765, % of all Females)

Self-presentation of gender	Others' perception of gender				
	Feminine	Equally Feminine and Masculine	Masculine	Don't know/Not sure	Missing
Feminine	57.52	1.91	0.17	2.46	0.47
Equally Feminine and Masculine	2.98	5.34	1.30	1.80	0.07
Masculine	0.13	0.42	1.00	0.26	0.02
Don't know/Not sure	1.24	0.62	0.20	10.43	0.21
Missing	6.91	0.95	0.14	1.28	1.16

Table 5
Male: Self-presentation and others' perception (N = 12,401, % of all Males)

Self-presentation of gender	Others' perception of gender				
	Feminine	Equally Feminine and Masculine	Masculine	Don't know/Not sure	Missing
Feminine	1.30	0.11	0.16	0.15	0.02
Equally Feminine and Masculine	0.64	1.93	0.79	0.74	0.04
Masculine	0.56	2.62	56.04	6.68	0.36
Don't know/Not sure	0.42	0.67	1.93	21.31	0.33
Missing	0.40	0.18	0.33	0.49	1.78

Table 6

TGNC: Self-presentation and others' perception (N = 1,465, % of all TGNC youth)

Self-presentation of gender	Others' perception of gender				
	Feminine	Equally Feminine and Masculine	Masculine	Don't know/Not sure	Missing
Feminine	6.69	1.02	0.82	1.16	0.07
Equally Feminine and Masculine	5.73	6.14	4.51	3.48	0.20
Masculine	2.94	4.78	31.26	5.19	0.20
Don't know/Not sure	1.30	1.43	2.05	12.97	0.27
Missing	3.48	1.09	0.89	0.75	1.57

Table 7

RQ1: Conditional means and odds ratios

	M	SE	<i>p</i> ^a
Emotional/mental health			
Male (reference)	3.83	0.02	-
Female	3.29	0.02	<.001
TGNC	2.91	0.03	<.001
Grades			
Male (reference)	4.29	0.02	-
Female	4.60	0.01	<.001
TGNC	4.14	0.03	<.001
Self-efficacy			
Male (reference)	3.46	0.02	
Female	3.35	0.02	<.001
TGNC	3.12	0.02	<.001
Caring adult at school			
Male (reference)	3.17	0.02	-
Female	3.17	0.02	0.81
TGNC	2.93	0.03	<.001
	OR ^b	95% CI	Probability
Depressive symptoms			
Male (reference)	-	-	0.25
Female	2.46	2.32, 2.61	0.45
TGNC	4.55	4.03, 5.14	0.60
Suicidal ideation			
Male (reference)	-	-	0.12
Female	2.40	2.22, 2.59	0.25
TGNC	5.53	4.85, 6.31	0.43

Suicide attempt			
Male (reference)	-	-	0.05
Female	2.37	2.11, 2.66	0.11
TGNC	6.13	5.17, 7.26	0.25

^a significance for difference from Male ^bOdds Ratios with Male as the reference group

Table 8

RQ1: Coefficients for emotional and mental health (N= 26,747)

	<i>B</i>	<i>SE</i>	<i>p</i>
Intercept	3.83	0.03	<.001
Gender (ref: Male)			
Female	-0.54	0.01	<.001
TGNC	-0.92	0.04	<.001
Free/reduced lunch (ref: No)			
Yes	-0.15	0.02	<.001
Don't Know	-0.13	0.02	<.001
Family Affluence Scale (ref: High)			
Low	-0.36	0.03	<.001
Middle	-0.22	0.02	<.001
Race/Ethnicity (ref: White)			
Asian, PI, Black	-0.03	0.03	0.329
Multi	-0.17	0.08	0.031
Latinx	0.11	0.02	<.001
Other	0.05	0.05	0.287
County/County Cluster (ref: Central/Eastern cluster)			
Clark	-0.05	0.03	0.138
Deschutes	0.08	0.04	0.025
Jackson	0.00	0.03	0.909
Lane	-0.08	0.04	0.028
Multnomah	0.00	0.03	0.960
Washington	0.00	0.03	0.899
North Coast	-0.01	0.03	0.863
Willamette Valley	-0.03	0.03	0.228
Southwest	0.01	0.03	0.760
Grade (ref: Eighth)			
Eleventh	-0.28	0.02	<.001
χ^2		2,496.34	
df		20	
R ²		0.09	

Table 9
RQ1: Coefficients for grades (N= 26,747)

	<i>B</i>	<i>SE</i>	<i>p</i>
Intercept	4.29	0.02	<.001
Gender (ref: Male)			
Female	0.31	0.01	<.001
TGNC	-0.15	0.03	<.001
Free/reduced lunch (ref: No)			
Yes	-0.33	0.01	<.001
Don't Know	-0.30	0.02	<.001
Family Affluence Scale (ref: High)			
Low	-0.47	0.03	<.001
Middle	-0.27	0.01	<.001
Race/Ethnicity (ref: White)			
Asian, PI, Black	-0.02	0.02	0.300
Multi	-0.22	0.08	0.007
Latinx	-0.18	0.02	<.001
Other	-0.05	0.04	0.199
County/County Cluster (ref: Central/Eastern cluster)			
Clark	0.06	0.03	0.029
Deschutes	0.09	0.03	0.004
Jackson	0.04	0.03	0.156
Lane	0.02	0.03	0.431
Multnomah	0.01	0.03	0.675
Washington	0.03	0.02	0.166
North Coast	-0.06	0.03	0.032
Willamette Valley	-0.02	0.02	0.330
Southwest	0.05	0.03	0.104
Grade (ref: Eighth)			
Eleventh	-0.14	0.01	<.001
χ^2		2,909.21	
df		20	
R ²		0.12	

Table 10
RQ1: Coefficients for self-efficacy (N= 26,747)

	<i>B</i>	<i>SE</i>	<i>p</i>
Intercept	3.46	0.02	<.001

Gender (ref: Male)				
	Female	-0.11	0.01	<.001
	TGNC	-0.34	0.02	<.001
Free/reduced lunch (ref: No)				
	Yes	-0.05	0.01	<.001
	Don't Know	-0.11	0.01	<.001
Family Affluence Scale (ref: High)				
	Low	-0.24	0.02	<.001
	Middle	-0.14	0.01	<.001
Race/Ethnicity (ref: White)				
	Asian, PI, Black	-0.00	0.02	0.842
	Multi	-0.04	0.05	0.380
	Latinx	-0.00	0.01	0.954
	Other	-0.00	0.03	0.977
County/County Cluster (ref: Central/Eastern cluster)				
	Clark	-0.03	0.02	0.158
	Deschutes	0.00	0.02	0.908
	Jackson	0.02	0.02	0.226
	Lane	-0.06	0.02	0.007
	Multnomah	0.02	0.02	0.289
	Washington	-0.01	0.02	0.371
	North Coast	0.00	0.02	0.939
	Willamette Valley	-0.02	0.02	0.359
	Southwest	0.03	0.02	0.113
Grade (ref: Eighth)				
	Eleventh	0.08	0.01	<.001
χ^2			1,026.92	
df			20	
R ²			0.04	

Table 11

RQ1: Coefficients for caring adult at school (N=26,7467)

	<i>B</i>	<i>SE</i>	<i>p</i>	
Intercept	3.17	0.02	<.001	
Gender (ref: Male)				
	Female	0.00	0.01	0.811
	TGNC	-0.24	0.03	<.001
Free/reduced lunch (ref: No)				

	Yes	-0.03	0.01	0.081
	Don't Know	-0.12	0.02	<.001
Family Affluence Scale (ref: High)				
	Low	-0.29	0.02	<.001
	Middle	-0.18	0.01	<.001
Race/Ethnicity (ref: White)				
	Asian, PI, Black	-0.07	0.02	0.001
	Multi	-0.27	0.07	<.001
	Latinx	-0.13	0.02	<.001
	Other	-0.15	0.04	<.001
County/County Cluster (ref: Central/Eastern cluster)				
	Clark	0.06	0.03	0.010
	Deschutes	0.05	0.03	0.114
	Jackson	0.10	0.03	<.001
	Lane	0.08	0.03	0.009
	Multnomah	0.05	0.02	0.031
	Washington	0.06	0.02	0.012
	North Coast	0.11	0.03	<.001
	Willamette Valley	0.06	0.02	0.011
	Southwest	0.00	0.03	0.909
Grade (ref: Eighth)				
	Eleventh	0.12	0.01	<.001
χ^2			813.31	
df			20	
R ²			0.03	

Table 12

RQ1: Response profile for depressive symptoms

Frequency	
yes	7,298
no	16,392

Table 13

RQ1: Coefficients for depressive symptoms (N=23,690)

	B	SE	p	exp(b)
Intercept	-1.71	0.05	<.001	0.18
Gender (ref: Male)				
Female	0.90	0.03	<.001	2.46
TGNC	1.52	0.06	<.001	4.55

Free/reduced lunch (ref: No)				
Yes	0.26	0.04	<.001	1.30
Don't Know	0.21	0.05	<.001	1.23
Family Affluence Scale (ref: High)				
Low	0.47	0.05	<.001	1.60
Middle	0.28	0.03	<.001	1.32
Race/Ethnicity (ref: White)				
Asian, PI, Black	0.15	0.05	0.003	1.16
Multi	0.45	0.16	0.004	1.57
Latinx	-0.05	0.04	0.222	0.96
Other	0.14	0.09	0.099	1.15
County/County Cluster (ref: Central/Eastern cluster)				
Clark	-0.00	0.06	0.941	1.00
Deschutes	-0.07	0.08	0.351	0.93
Jackson	0.02	0.07	0.730	1.02
Lane	0.16	0.07	0.030	1.17
Multnomah	-0.09	0.06	0.112	0.91
Washington	-0.06	0.06	0.289	0.94
North Coast	0.02	0.07	0.761	1.02
Willamette Valley	-0.05	0.06	0.422	0.96
Southwest	0.11	0.07	0.101	1.11
Grade (ref: Eighth)				
Eleventh	0.13	0.03	<.001	1.14
χ^2			1,513.64	
df			20	

Table 14

RQ1: Response profile for suicidal ideation

Frequency	
yes	4,061
no	19,065

Table 15

RQ1: Coefficients for suicidal ideation (N=23,126)

	B	SE	p	exp(b)
Intercept	-2.25	0.07	<.001	0.11
Gender (ref: Male)				
Female	0.88	0.04	<.001	2.40
TGNC	1.71	0.07	<.001	5.53

Free/reduced lunch (ref: No)				
Yes	0.15	0.04	0.001	1.16
Don't Know	0.00	0.06	0.967	1.00
Family Affluence Scale (ref: High)				
Low	0.47	0.06	<.001	1.60
Middle	0.25	0.04	<.001	1.28
Race/Ethnicity (ref: White)				
Asian, PI, Black	0.12	0.06	0.041	1.13
Multi	0.10	0.19	0.581	1.11
Latinx	-0.20	0.05	<.001	0.82
Other	0.10	0.10	0.340	1.11
County/County Cluster (ref: Central/Eastern cluster)				
Clark	-0.10	0.07	0.198	0.91
Deschutes	-0.16	0.09	0.074	0.85
Jackson	-0.07	0.08	0.381	0.93
Lane	0.11	0.08	0.178	1.12
Multnomah	-0.27	0.07	<.001	0.77
Washington	-0.19	0.07	0.006	0.83
North Coast	0.08	0.08	0.301	1.08
Willamette Valley	-0.05	0.07	0.423	0.95
Southwest	0.08	0.08	0.295	1.09
Grade (ref: Eighth)				
Eleventh	0.03	0.04	0.481	1.03
χ^2			1,063.75	
df			20	

Table 16

RQ1: Response profile for suicide attempt

Frequency	
0 attempts	21,284
1 or more attempt	1,750

Table 17

RQ1: Coefficients for suicide attempt (N=23,034)

	B	SE	p	exp(b)
Intercept	-3.12	0.09	<.001	0.04
Gender (ref: Male)				
Female	0.86	0.06	<.001	2.37

TGNC	1.81	0.09	<.001	6.13
Free/reduced lunch (ref: No)				
Yes	0.33	0.06	<.001	1.39
Don't Know	0.10	0.08	0.233	1.11
Family Affluence Scale (ref: High)				
Low	0.41	0.08	<.001	1.51
Middle	0.24	0.06	<.001	1.27
Race/Ethnicity (ref: White)				
Asian, PI, Black	0.29	0.08	<.001	1.33
Multi	0.35	0.25	0.157	1.42
Latinx	-0.03	0.06	0.681	0.97
Other	0.21	0.14	0.134	1.24
County/County Cluster (ref: Central/Eastern cluster)				
Clark	-0.27	0.11	0.010	0.76
Deschutes	-0.40	0.13	0.003	0.67
Jackson	-0.25	0.12	0.032	0.78
Lane	0.02	0.11	0.879	1.02
Multnomah	-0.38	0.10	<.001	0.68
Washington	-0.38	0.10	<.001	0.69
North Coast	-0.18	0.11	0.097	0.83
Willamette Valley	-0.25	0.09	0.008	0.78
Southwest	-0.01	0.11	0.963	1.00
Grade (ref: Eighth)				
Eleventh	-0.25	0.05	<.001	0.78
χ^2			653.46	
df			20	

Table 18

RQ2: Emotional and Mental Health: Chi-Square difference testing of effects for gender and 2-way interactions

	Δ DF	Δ Chi Square	p
Gender	2	630.30	<.001
Self	2	78.30	<.001
Others	2	65.03	<.001
Gender*Self	4	32.96	<.001
Gender*Others	4	14.98	0.005
Self*Others	4	113.75	<.001

Table 19
RQ2: Coefficients for emotional/mental health (N=26,747)

	<i>B</i>	<i>SE</i>	<i>p</i>
Intercept	3.87	0.03	<.001
Gender (ref: Male)			
Female	-0.65	0.03	<.001
TGNC	-0.65	0.04	<.001
Self (ref: Masculine)			
Feminine	-0.44	0.11	<.001
Equal	-0.58	0.07	<.001
Others (ref: Masculine)			
Feminine	-0.42	0.08	<.001
Equal	-0.36	0.05	<.001
Gender*Self			
Female/Feminine	0.38	0.11	<.001
Female/Equal	0.21	0.08	0.011
TGNC/Feminine	0.00	0.16	0.981
TGNC/Equal	-0.26	0.10	0.019
Gender*Others			
Female/Feminine	0.21	0.10	0.036
Female/Equal	-0.10	0.08	0.243
TGNC/Feminine	0.02	0.12	0.913
TGNC/Equal	-0.29	0.11	0.011
Self*Others			
Feminine/Feminine	0.43	0.09	<.001
Feminine/Equal	0.37	0.12	0.002
Equal/Feminine	0.25	0.09	0.013
Equal/Equal	0.72	0.08	<.001
Free/reduced lunch (ref: No)			
Yes	-0.13	0.02	<.001
Don't Know	-0.11	0.02	<.001
Family Affluence Scale (ref: High)			
Low	-0.35	0.03	<.001
Middle	-0.21	0.02	<.001
Race/Ethnicity (ref: White)			
Asian, PI, Black	-0.01	0.03	0.679
Multi	-0.12	0.08	0.127
Latinx	0.11	0.02	<.001
Other	0.05	0.05	0.313

County/County Cluster (ref:
Central/Eastern cluster)

Clark	-0.05	0.03	0.107
Deschutes	0.08	0.04	0.031
Jackson	0.00	0.03	0.984
Lane	-0.08	0.04	0.021
Multnomah	-0.01	0.03	0.830
Washington	-0.01	0.03	0.662
North Coast	-0.00	0.03	0.951
Willamette Valley	-0.04	0.03	0.177
Southwest	0.02	0.03	0.651
Grade (ref: Eighth)			
Eleventh	-0.30	0.02	<.001
χ^2		3111.78	
df		36	
R ²		0.11	

Table 20

RQ2: Conditional means for emotional/mental health

Gender	Self	Others	Mean	SE	<i>p</i>
Female	Feminine	Feminine	3.38	0.03	<.001
Female	Feminine	Equal	3.07	0.07	<.001
Female	Feminine	Masculine	3.16	0.06	<.001
Female	Equal	Feminine	2.89	0.06	<.001
Female	Equal	Equal	3.11	0.05	<.001
Female	Equal	Masculine	2.85	0.06	<.001
Female	Masculine	Feminine	3.01	0.08	<.001
Female	Masculine	Equal	2.77	0.08	<.001
Female	Masculine	Masculine	3.22	0.04	<.001
Male	Feminine	Feminine	3.44	0.08	<.001
Male	Feminine	Equal	3.43	0.14	<.001
Male	Feminine	Masculine	3.43	0.11	<.001
Male	Equal	Feminine	3.12	0.10	<.001
Male	Equal	Equal	3.64	0.07	<.001
Male	Equal	Masculine	3.29	0.07	<.001
Male	Masculine	Feminine	3.45	0.09	<.001
Male	Masculine	Equal	3.51	0.06	<.001
Male	Masculine	Masculine	3.87	0.03	<.001
TGNC	Feminine	Feminine	2.79	0.10	<.001
TGNC	Feminine	Equal	2.49	0.15	<.001

TGNC	Feminine	Masculine	2.77	0.13	<.001
TGNC	Equal	Feminine	2.23	0.10	<.001
TGNC	Equal	Equal	2.45	0.10	<.001
TGNC	Equal	Masculine	2.38	0.09	<.001
TGNC	Masculine	Feminine	2.80	0.11	<.001
TGNC	Masculine	Equal	2.57	0.10	<.001
TGNC	Masculine	Masculine	3.22	0.05	<.001

Table 21

RQ2: Means comparisons for emotional/mental health

	B	SE	p^b
Female/Feminine/Feminine ^a (Reference Group)			
Female/Feminine/Equal	-0.31	0.07	<.001
Female/Feminine/Masculine	-0.22	0.05	<.001
Female/Equal/Feminine	-0.49	0.06	<.001
Female/Equal/Equal	-0.27	0.04	<.001
Female/Equal/Masculine	-0.53	0.05	<.001
Female/Masculine/Feminine	-0.37	0.07	<.001
Female/Masculine/Equal	-0.61	0.08	<.001
Female/Masculine/Masculine	-0.16	0.03	<.001
Male/Masculine/Masculine (Reference group)			
Male/Feminine/Feminine	-0.43	0.08	<.001
Male/Feminine/Equal	-0.44	0.13	<.001
Male/Feminine/Masculine	-0.44	0.11	<.001
Male/Equal/Feminine	-0.75	0.09	<.001
Male/Equal/Equal	-0.23	0.07	<.001
Male/Equal/Masculine	-0.58	0.07	<.001
Male/Masculine/Feminine	-0.42	0.08	<.001
Male/Masculine/Equal	-0.36	0.05	<.001
TGNC/Masculine/Masculine (Reference Group)			
TGNC/Feminine/Feminine	-0.42	0.11	<.001
TGNC/Feminine/Equal	-0.72	0.16	<.001
TGNC/Feminine/Masculine	-0.44	0.13	<.001
TGNC/Equal/Feminine	-0.99	0.11	<.001
TGNC/Equal/Equal	-0.76	0.11	<.001
TGNC/Equal/Masculine	-0.84	0.09	<.001
TGNC/Masculine/Feminine	-0.41	0.11	<.001
TGNC/Masculine/Equal	-0.64	0.10	<.001

^aThe comparisons above are in Gender/Self/Others format. For example, Female/Masculine/Feminine denotes a youth who identified gender as Female, self-presentation as Masculine, and others' perception as Feminine. ^bBonferroni adjusted alpha levels: $.05/8 = .00625$

Table 22

RQ2: Grades: Chi-Square difference testing of effects for gender and 2-way interactions

	Δ DF	Δ Chi Square	p
Gender	2	55.46	<.001
Self	2	9.53	0.009
Others	2	0.83	0.660
Gender*Self	4	17.57	0.002
Gender*Others	4	5.88	0.209
Self*Others	4	16.359	0.003

Table 23

RQ2: Coefficients for grades (N=26,747)

	B	SE	p
Intercept	4.29	0.02	<.001
Gender (ref: Male)			
Female	0.10	0.03	<.001
TGNC	-0.20	0.03	<.001
Self (ref: Masculine)			
Feminine	-0.33	0.08	<.001
Equal	-0.15	0.05	<.001
Others (ref: Masculine)			
Feminine	0.03	0.05	0.524
Equal	-0.04	0.04	0.372
Gender*Self			
Female/Feminine	0.44	0.08	<.001
Female/Equal	0.19	0.06	<.001
TGNC/Feminine	0.48	0.11	<.001
TGNC/Equal	0.19	0.08	0.021
Self*Others			
Feminine/Feminine	0.14	0.07	0.046
Feminine/Equal	-0.05	0.08	0.565
Equal/Feminine	0.05	0.08	0.544
Equal/Equal	0.14	0.06	0.027
Free/reduced lunch (ref: No)			
Yes	-0.30	0.02	<.001
Don't Know	-0.28	0.02	<.001

Family Affluence Scale (ref: High)			
Low	-0.46	0.02	<.001
Middle	-0.26	0.01	<.001
Race/Ethnicity (ref: White)			
Asian, PI, Black	-0.01	0.02	0.588
Multi	-0.20	0.07	0.005
Latinx	-0.17	0.02	<.001
Other	-0.04	0.04	0.262
County/County Cluster (ref: Central/Eastern cluster)			
Clark	0.05	0.03	0.057
Deschutes	0.08	0.03	0.010
Jackson	0.04	0.03	0.227
Lane	0.02	0.03	0.528
Multnomah	0.01	0.02	0.848
Washington	0.03	0.02	0.238
North Coast	-0.06	0.03	0.023
Willamette Valley	-0.03	0.02	0.278
Southwest	0.05	0.03	0.105
Grade (ref: Eighth)			
	-0.16	0.01	<.001
χ^2		3,321.27	
df		32	
R ²		0.13	

Table 24

RQ2: Conditional means for grades

Gender	Self	Others	Mean	SE	<i>p</i>
Female	Feminine	Feminine	4.67	0.02	<.001
Female	Feminine	Equal	4.41	0.06	<.001
Female	Feminine	Masculine	4.50	0.05	<.001
Female	Equal	Feminine	4.50	0.05	<.001
Female	Equal	Equal	4.53	0.04	<.001
Female	Equal	Masculine	4.42	0.05	<.001
Female	Masculine	Feminine	4.42	0.06	<.001
Female	Masculine	Equal	4.35	0.05	<.001
Female	Masculine	Masculine	4.39	0.03	<.001
Male	Feminine	Feminine	4.13	0.07	<.001
Male	Feminine	Equal	3.87	0.09	<.001
Male	Feminine	Masculine	3.96	0.08	<.001

Male	Equal	Feminine	4.22	0.06	<.001
Male	Equal	Equal	4.24	0.05	<.001
Male	Equal	Masculine	4.14	0.06	<.001
Male	Masculine	Feminine	4.32	0.06	<.001
Male	Masculine	Equal	4.25	0.04	<.001
Male	Masculine	Masculine	4.29	0.02	<.001
TGNC	Feminine	Feminine	4.41	0.09	<.001
TGNC	Feminine	Equal	4.15	0.10	<.001
TGNC	Feminine	Masculine	4.23	0.09	<.001
TGNC	Equal	Feminine	4.20	0.07	<.001
TGNC	Equal	Equal	4.23	0.07	<.001
TGNC	Equal	Masculine	4.12	0.07	<.001
TGNC	Masculine	Feminine	4.12	0.06	<.001
TGNC	Masculine	Equal	4.05	0.05	<.001
TGNC	Masculine	Masculine	4.09	0.04	<.001

Table 25
RQ2: Means comparisons for grades

	Estimate	SE	p^b
Female/Feminine/Feminine ^a (Reference Group)			
Female/Feminine/Equal	-0.26	0.06	<.001
Female/Feminine/Masculine	-0.17	0.05	<.001
Female/Equal/Feminine	-0.17	0.05	<.001
Female/Equal/Equal	-0.14	0.04	<.001
Female/Equal/Masculine	-0.25	0.04	<.001
Female/Masculine/Feminine	-0.25	0.06	<.001
Female/Masculine/Equal	-0.32	0.05	<.001
Female/Masculine/Masculine	-0.28	0.03	<.001
Male/Masculine/Masculine (Reference group)			
Male/Feminine/Feminine	-0.16	0.07	0.025
Male/Feminine/Equal	-0.42	0.09	<.001
Male/Feminine/Masculine	-0.33	0.08	<.001
Male/Equal/Feminine	-0.07	0.06	0.236
Male/Equal/Equal	-0.05	0.05	0.338
Male/Equal/Masculine	-0.15	0.05	0.004
Male/Masculine/Feminine	0.03	0.05	0.524
Male/Masculine/Equal	-0.04	0.04	0.372
TGNC/Masculine/Masculine (Reference Group)			

TGNC/Feminine/Feminine	0.32	0.09	<.001
TGNC/Feminine/Equal	0.06	0.10	0.559
TGNC/Feminine/Masculine	0.15	0.10	0.133
TGNC/Equal/Feminine	0.12	0.08	0.122
TGNC/Equal/Equal	0.14	0.07	0.056
TGNC/Equal/Masculine	0.04	0.07	0.632
TGNC/Masculine/Feminine	0.03	0.05	0.524
TGNC/Masculine/Equal	-0.04	0.04	0.372

^a The comparisons above are in Gender/Self/Others format. For example, Female/Masculine/Feminine denotes a youth who identified gender as Female, self-presentation as Masculine, and others' perception as Feminine. ^bBonferroni adjusted alpha levels: $.05/8 = .00625$.

Table 26

RQ2: Self-Efficacy: Chi-Square difference testing effects for gender and 2-way interactions

	Δ DF	Δ Chi Square	p
Gender	2	255.47	<.001
Self	2	26.19	<.001
Others	2	39.01	<.001
Gender*Self	4	22.99	<.001
Gender*Others	4	11.09	0.026
Self*Others	4	54.94	<.001

Table 27

RQ2: Coefficients for self-efficacy (N=26,747)

	B	SE	p
Intercept	3.47	0.02	<.001
Gender (ref: Male)			
Female	-0.24	0.02	<.001
TGNC	-0.25	0.03	<.001
Self (ref: Masculine)			
Feminine	-0.17	0.07	0.009
Equal	-0.19	0.04	<.001
Others (ref: Masculine)			
Feminine	-0.16	0.05	<.001
Equal	-0.18	0.03	<.001
Gender*Self			
Female/Feminine	0.16	0.07	0.016
Female/Equal	0.16	0.05	<.001
TGNC/Feminine	-0.02	0.09	0.840
TGNC/Equal	-0.06	0.06	0.333

Gender*Others				
	Female/Feminine	0.11	0.05	0.034
	Female/Equal	0.10	0.05	0.030
	TGNC/Feminine	-0.04	0.07	0.550
	TGNC/Equal	-0.02	0.06	0.797
Self*Others				
	Feminine/Feminine	0.23	0.05	<.001
	Feminine/Equal	0.17	0.07	0.009
	Equal/Feminine	0.07	0.06	0.219
	Equal/Equal	0.24	0.05	<.001
Free/reduced lunch (ref: No)				
	Yes	-0.04	0.01	<.001
	Don't Know	-0.10	0.01	<.001
Family Affluence Scale (ref: High)				
	Low	-0.23	0.02	<.001
	Middle	-0.13	0.01	<.001
Race/Ethnicity (ref: White)				
	Asian, PI, Black	0.00	0.02	0.870
	Multi	-0.02	0.05	0.617
	Latinx	0.00	0.01	0.885
	Other	0.00	0.03	0.962
County/County Cluster (ref: Central/Eastern cluster)				
	Clark	-0.03	0.02	0.107
	Deschutes	0.00	0.02	0.881
	Jackson	0.02	0.02	0.293
	Lane	-0.06	0.02	0.004
	Multnomah	0.01	0.02	0.410
	Washington	-0.02	0.02	0.220
	North Coast	0.00	0.02	0.929
	Willamette Valley	-0.02	0.02	0.259
	Southwest	0.03	0.02	0.103
Grade (ref: Eighth)				
	Eleventh	0.06	0.01	<.001
χ^2			1,203.19	
df			36	
R ²			0.05	

Table 28
RQ2: Conditional means for self-efficacy

Gender	Self	Others	Mean	SE	<i>p</i>
Female	Feminine	Feminine	3.40	0.02	<.001
Female	Feminine	Equal	3.32	0.04	<.001
Female	Feminine	Masculine	3.22	0.03	<.001
Female	Equal	Feminine	3.23	0.04	<.001
Female	Equal	Equal	3.37	0.03	<.001
Female	Equal	Masculine	3.20	0.03	<.001
Female	Masculine	Feminine	3.19	0.05	<.001
Female	Masculine	Equal	3.16	0.05	<.001
Female	Masculine	Masculine	3.23	0.02	<.001
Male	Feminine	Feminine	3.37	0.05	<.001
Male	Feminine	Equal	3.30	0.08	<.001
Male	Feminine	Masculine	3.30	0.07	<.001
Male	Equal	Feminine	3.19	0.06	<.001
Male	Equal	Equal	3.35	0.04	<.001
Male	Equal	Masculine	3.28	0.04	<.001
Male	Masculine	Feminine	3.32	0.05	<.001
Male	Masculine	Equal	3.30	0.03	<.001
Male	Masculine	Masculine	3.47	0.02	<.001
TGNC	Feminine	Feminine	3.06	0.06	<.001
TGNC	Feminine	Equal	3.01	0.09	<.001
TGNC	Feminine	Masculine	3.03	0.08	<.001
TGNC	Equal	Feminine	2.84	0.06	<.001
TGNC	Equal	Equal	3.02	0.06	<.001
TGNC	Equal	Masculine	2.97	0.05	<.001
TGNC	Masculine	Feminine	3.03	0.06	<.001
TGNC	Masculine	Equal	3.03	0.06	<.001
TGNC	Masculine	Masculine	3.22	0.03	<.001

Table 29
RQ2: Means comparisons for self-efficacy

	B	SE	<i>p</i> ^b
Female/Feminine/Feminine ^a (Reference Group)			
Female/Feminine/Equal	-0.09	0.04	0.043
Female/Feminine/Masculine	-0.19	0.03	<.001
Female/Equal/Feminine	-0.18	0.03	<.001
Female/Equal/Equal	-0.03	0.03	0.222

Female/Equal/Masculine	-0.20	0.03	<.001
Female/Masculine/Feminine	-0.21	0.04	<.001
Female/Masculine/Equal	-0.24	0.05	<.001
Female/Masculine/Masculine	-0.17	0.02	<.001
Male/Masculine/Masculine (Reference group)			
Male/Feminine/Feminine	-0.10	0.05	0.031
Male/Feminine/Equal	-0.18	0.08	0.026
Male/Feminine/Masculine	-0.17	0.07	0.009
Male/Equal/Feminine	-0.28	0.06	<.001
Male/Equal/Equal	-0.13	0.04	<.001
Male/Equal/Masculine	-0.19	0.04	<.001
Male/Masculine/Feminine	-0.16	0.05	<.001
Male/Masculine/Equal	-0.18	0.03	<.001
TGNC/Masculine/Masculine (Reference Group)			
TGNC/Feminine/Feminine	-0.16	0.06	0.010
TGNC/Feminine/Equal	-0.21	0.09	0.023
TGNC/Feminine/Masculine	-0.19	0.08	0.013
TGNC/Equal/Feminine	-0.38	0.06	<.001
TGNC/Equal/Equal	-0.20	0.06	<.001
TGNC/Equal/Masculine	-0.25	0.05	<.001
TGNC/Masculine/Feminine	-0.20	0.06	<.001
TGNC/Masculine/Equal	-0.19	0.06	<.001

^a The comparisons above are in Gender/Self/Others format. For example, Female/Masculine/Feminine denotes a youth who identified gender as Female, self-presentation as Masculine, and others' perception as Feminine. ^bBonferroni adjusted alpha levels: $.05/8 = .00625$

Table 30

RQ2: Caring Adult: Chi-Square difference testing effects for gender and 2-way interactions

	Δ DF	Δ Chi Square	p
Gender	2	93.88	<.001
Self	2	1.98	0.372
Others	2	4.08	0.130
Gender*Self	4	1.89	0.755
Gender*Others	4	3.20	0.525
Self*Others	4	15.15	0.004

Table 31
RQ2: Coefficients for caring adult (N=26,747)

	B	SE	<i>p</i>
Intercept	3.17	0.02	<.001
Gender (ref: Male)			
Female	-0.10	0.02	<.001
TGNC	-0.25	0.03	<.001
Self (ref: Masculine)			
Feminine	-0.04	0.04	0.357
Equal	-0.04	0.04	0.283
Others (ref: Masculine)			
Feminine	-0.02	0.05	0.703
Equal	-0.06	0.04	0.119
Self*Others			
Feminine/Feminine	0.21	0.07	0.002
Feminine/Equal	0.17	0.08	0.030
Equal/Feminine	0.09	0.07	0.221
Equal/Equal	0.20	0.06	0.001
Free/reduced lunch (ref: No)			
Yes	-0.02	0.01	0.214
Don't Know	-0.11	0.02	<.001
Family Affluence Scale (ref: High)			
Low	-0.28	0.02	<.001
Middle	-0.17	0.01	<.001
Race/Ethnicity (ref: White)			
Asian, PI, Black	-0.07	0.02	<.001
Multi	-0.26	0.07	<.001
Latinx	-0.13	0.02	<.001
Other	-0.14	0.04	<.001
County/County Cluster (ref: Central/Eastern cluster)			
Clark	0.06	0.03	0.016
Deschutes	0.04	0.03	0.151
Jackson	0.10	0.03	0.001
Lane	0.07	0.03	0.012
Multnomah	0.05	0.02	0.041
Washington	0.05	0.02	0.015
North Coast	0.11	0.03	<.001
Willamette Valley	0.06	0.02	0.012

	Southwest	0.00	0.03	0.911
Grade (ref: Eighth)	Eleventh	0.11	0.01	<.001
χ^2			925.47	
df			28	
R ²			0.04	

Table 32

RQ2: Conditional means for caring adult

Gender	Self	Others	Mean	SE	<i>p</i>
Female	Feminine	Feminine	3.22	0.02	<.001
Female	Feminine	Equal	3.14	0.06	<.001
Female	Feminine	Masculine	3.03	0.05	<.001
Female	Equal	Feminine	3.10	0.05	<.001
Female	Equal	Equal	3.17	0.04	<.001
Female	Equal	Masculine	3.03	0.04	<.001
Female	Masculine	Feminine	3.05	0.05	<.001
Female	Masculine	Equal	3.01	0.04	<.001
Female	Masculine	Masculine	3.07	0.03	<.001
Male	Feminine	Feminine	3.32	0.03	<.001
Male	Feminine	Equal	3.24	0.06	<.001
Male	Feminine	Masculine	3.13	0.05	<.001
Male	Equal	Feminine	3.20	0.05	<.001
Male	Equal	Equal	3.27	0.04	<.001
Male	Equal	Masculine	3.13	0.04	<.001
Male	Masculine	Feminine	3.15	0.05	<.001
Male	Masculine	Equal	3.11	0.04	<.001
Male	Masculine	Masculine	3.17	0.02	<.001
TGNC	Feminine	Feminine	3.06	0.04	<.001
TGNC	Feminine	Equal	2.99	0.07	<.001
TGNC	Feminine	Masculine	2.88	0.05	<.001
TGNC	Equal	Feminine	2.95	0.05	<.001
TGNC	Equal	Equal	3.02	0.04	<.001
TGNC	Equal	Masculine	2.88	0.05	<.001
TGNC	Masculine	Feminine	2.90	0.06	<.001
TGNC	Masculine	Equal	2.86	0.05	<.001
TGNC	Masculine	Masculine	2.92	0.03	<.001

Table 33
RQ2: Means comparisons for caring adult

	B	SE	<i>p</i> ^b
Female/Feminine/Feminine ^a (Reference Group)			
Female/Feminine/Equal	-0.08	0.06	0.191
Female/Feminine/Masculine	-0.19	0.04	<.001
Female/Equal/Feminine	-0.12	0.04	0.005
Female/Equal/Equal	-0.05	0.03	0.139
Female/Equal/Masculine	-0.19	0.04	<.001
Female/Masculine/Feminine	-0.17	0.05	0.001
Female/Masculine/Equal	-0.21	0.04	<.001
Female/Masculine/Masculine	-0.15	0.02	<.001
Male/Masculine/Masculine (Reference group)			
Male/Feminine/Feminine	0.15	0.02	<.001
Male/Feminine/Equal	0.07	0.06	0.218
Male/Feminine/Masculine	-0.04	0.04	0.357
Male/Equal/Feminine	0.03	0.04	0.477
Male/Equal/Equal	0.10	0.03	0.001
Male/Equal/Masculine	-0.04	0.04	0.283
Male/Masculine/Feminine	-0.02	0.05	0.703
Male/Masculine/Equal	-0.06	0.04	0.119
TGNC/Masculine/Masculine (Reference Group)			
TGNC/Feminine/Feminine	0.15	0.02	<.001
TGNC/Feminine/Equal	0.07	0.06	0.218
TGNC/Feminine/Masculine	-0.04	0.04	0.357
TGNC/Equal/Feminine	0.03	0.04	0.477
TGNC/Equal/Equal	0.10	0.03	0.001
TGNC/Equal/Masculine	-0.04	0.04	0.283
TGNC/Masculine/Feminine	-0.02	0.05	0.703
TGNC/Masculine/Equal	-0.06	0.04	0.119

^a The comparisons above are in Gender/Self/Others format. For example, Female/Masculine/Feminine denotes a youth who identified gender as Female, self-presentation as Masculine, and others' perception as Feminine. ^b Bonferroni adjusted alpha levels: $.05/8 = .00625$.

Table 34
RQ2: Depressive symptoms: Likelihood ratio tests of effects for gender and 2-way interactions

	DF	Chi Square	<i>p</i>
Gender	2	259.72	<.001

Self	3	43.53	<.001
Others	3	5.24	0.157
Gender*Self	6	33.65	<.001
Gender*Others	6	16.29	0.012
Self*Others	9	98.31	<.001

Table 35

RQ2: Response profile for depressive symptoms

Frequency	
yes	6,651
no	15,380

Table 36

RQ2: Coefficients and odds ratios for depressive symptoms (N=22,031)

	B	SE	Chi-Square	p	exp(b)	95% CI
Intercept	-1.87	0.06	944.11	<.001	0.15	0.14, 0.17
Gender (ref: Male)						
Female	1.42	0.16	78.82	<.001	4.12	3.00, 5.65
TGNC	1.03	0.11	97.03	<.001	2.80	2.28, 3.44
Self (ref: Masculine)						
Feminine	1.48	0.35	18.00	<.001	4.39	2.22, 8.69
Equal	1.05	0.17	37.03	<.001	2.86	2.04, 4.02
Others (ref: Masculine)						
Feminine	0.79	0.22	12.90	<.001	2.20	1.43, 3.39
Equal	0.53	0.13	16.97	<.001	1.69	1.32, 2.18
Gender*Self						
Female/Feminine	-0.84	0.27	10.10	0.002	0.43	0.26, 0.72
Female/Equal	-0.68	0.20	11.18	<.001	0.51	0.34, 0.76
TGNC/Feminine	0.10	0.32	0.11	0.746	1.11	0.60, 2.06
TGNC/Equal	0.50	0.22	5.09	0.024	1.64	1.07, 2.53
Gender*Others						
Female/Feminine	-0.59	0.23	6.35	0.012	0.56	0.35, 0.88
Female/Equal	0.20	0.21	0.89	0.347	1.22	0.81, 1.84
TGNC/Feminine	-0.10	0.27	0.15	0.703	0.90	0.54, 1.52
TGNC/Equal	0.47	0.23	4.10	0.043	1.60	1.02, 2.53
Self*Others						
Feminine/Feminine	-1.36	0.39	12.11	<.001	0.26	0.12, 0.55
Feminine/Equal	-1.45	0.39	13.77	<.001	0.23	0.11, 0.50
Equal/Feminine	-0.37	0.27	1.82	0.177	0.69	0.41, 1.18
Equal/Equal	-1.06	0.21	25.60	<.001	0.35	0.23, 0.52
Free/reduced lunch (ref: No)						
Yes	0.20	0.04	27.48	<.001	1.22	1.13, 1.31
Don't Know	0.18	0.05	12.45	<.001	1.20	1.08, 1.32

Family Affluence Scale (ref: High)							
	Low	0.44	0.05	65.46	<.001	1.55	1.39, 1.72
	Middle	0.24	0.04	48.99	<.001	1.28	1.19, 1.37
Race/Ethnicity (ref: White)							
	Asian, PI, Black	0.11	0.05	4.41	0.036	1.12	1.01, 1.24
	Multi	0.34	0.17	3.96	0.047	1.40	1.01, 1.96
	Latinx	-0.01	0.04	0.09	0.765	0.99	0.91, 1.07
	Other	0.19	0.09	4.25	0.039	1.21	1.01, 1.44
County/County Cluster (ref: Central/Eastern cluster)							
	Clark	-0.01	0.07	0.03	0.868	0.99	0.87, 1.12
	Deschutes	-0.05	0.08	0.47	0.494	0.95	0.81, 1.11
	Jackson	0.04	0.07	0.23	0.629	1.04	0.90, 1.20
	Lane	0.15	0.08	4.06	0.044	1.17	1.00, 1.35
	Multnomah	-0.10	0.06	2.69	0.101	0.90	0.80, 1.02
	Washington	-0.05	0.06	0.79	0.373	0.95	0.84, 1.07
	North Coast	0.01	0.07	0.03	0.858	1.01	0.88, 1.16
	Willamette Valley	-0.05	0.06	0.67	0.415	0.95	0.85, 1.07
	Southwest	0.10	0.07	1.78	0.182	1.10	0.96, 1.26
Grade (ref: Eighth)							
	Eleventh	0.19	0.03	34.85	<.001	1.21	1.13, 1.29
χ^2						1,835.93	
df						47	

Table 37

*RQ2: Gender*Self: Comparisons of depressive symptoms odds ratios with reference group Male/Masculine*

Gender	Self	Estimate	SE	p^a	exp(b)	95% CI	Probability
Female	Feminine	0.88	0.12	<.001	2.42	1.92, 3.05	0.51
Female	Equal	1.20	0.09	<.001	3.34	2.78, 4.00	0.59
Female	Masculine	1.26	0.16	<.001	3.53	2.58, 4.83	0.60
TGNC	Feminine	1.70	0.22	<.001	5.49	3.54, 8.51	0.70
TGNC	Equal	2.25	0.16	<.001	9.50	6.93, 13.03	0.80
TGNC	Masculine	1.13	0.13	<.001	3.10	2.42, 3.98	0.57
Male	Feminine	0.47	0.20	0.474	1.60	1.07, 2.37	0.41
Male	Equal	0.62	0.12	<.001	1.86	1.46, 2.38	0.45
Male	Masculine						0.30

^aBonferroni adjusted alpha level: $.05/8 = .00625$.

Table 38

*RQ2: Gender*Others: Comparisons of depressive symptoms odds ratios with reference group Male/ Masculine*

Gender	Others	Estimate	SE	p^a	exp (b)	95% CI	Probability
Female	Feminine	0.66	0.13	<.001	1.93	1.49, 2.50	0.53
Female	Equal	0.99	0.14	<.001	2.68	2.05, 3.51	0.61
Female	Masculine	0.98	0.16	<.001	2.67	1.96, 3.64	0.61
TGNC	Feminine	1.36	0.19	<.001	3.90	2.68, 5.67	0.69
TGNC	Equal	1.48	0.21	<.001	4.39	2.89, 6.67	0.72
TGNC	Masculine	1.20	0.15	<.001	3.33	2.47, 4.49	0.66
Male	Feminine	0.26	0.17	0.933	1.30	0.93, 1.81	0.43
Male	Equal	-0.19	0.15	0.983	0.82	0.61, 1.11	0.32
Male	Masculine						0.37

^aBonferroni adjusted alpha level: $.05/8 = .00625$.

Table 39

*RQ2: Self*Others: Comparisons of depressive symptoms odds ratios with reference group Masculine / Masculine*

Self	Others	Estimate	SE	p^a	exp(b)	95% CI	Probability
Feminine	Feminine	0.44	0.11	0.005	1.55	1.25, 1.91	0.49
Feminine	Equal	0.53	0.19	0.272	1.70	1.17, 2.48	0.51
Feminine	Masculine	1.23	0.33	0.016	3.43	1.80, 6.53	0.68
Equal	Feminine	1.18	0.13	<.001	3.27	2.53, 4.22	0.67
Equal	Equal	0.68	0.11	<.001	1.97	1.59, 2.46	0.55
Equal	Masculine	0.99	0.15	<.001	2.70	2.02, 3.59	0.62
Masculine	Feminine	0.56	0.20	0.306	1.75	1.17, 2.61	0.52
Masculine	Equal	0.75	0.14	<.001	2.12	1.62, 2.77	0.57
Masculine	Masculine						0.38

^aBonferroni adjusted alpha level: $.05/8 = .00625$.

Table 40

RQ2: Suicidal ideation: Likelihood ratio tests of effects for gender and 2-way interactions

	DF	Chi Square	p
Gender	2	220.0285	<.001
Self	3	39.856	<.001
Others	3	13.81	0.003
Gender*Self	6	38.4275	<.001
Gender*Others	6	16.0569	0.014
Self*Others	9	76.7335	<.001

Table 41

RQ2: Response profile for suicidal ideation

Frequency	
yes	3,678
no	17,847

Table 42

RQ2: Coefficients and odds ratios for suicidal ideation (N=21,525)

	B	SE	Chi Square	p	exp(b)	95% CI
Intercept	-2.42	0.08	1023.55	<.001	0.09	0.08, 0.10
Gender (ref: Male)						
Female	1.52	0.18	75.84	<.001	4.59	3.26, 6.47
TGNC	1.38	0.12	142.37	<.001	3.98	3.17, 4.99
Self (ref: Masculine)						
Feminine	1.94	0.35	30.47	<.001	6.95	3.49, 13.83
Equal	1.25	0.19	43.74	<.001	3.48	2.40, 5.03
Others (ref: Masculine)						
Feminine	0.78	0.25	9.46	0.002	2.18	1.33, 3.57
Equal	0.49	0.16	9.33	0.002	1.63	1.19, 2.22
Gender*Self						
Female/Feminine	-1.45	0.29	24.64	<.001	0.24	0.13, 0.42
Female/Equal	-0.97	0.22	19.66	<.001	0.38	0.25, 0.58
TGNC/Feminine	-0.63	0.34	3.52	0.061	0.53	0.28, 1.03
TGNC/Equal	0.11	0.22	0.24	0.627	1.12	0.72, 1.73
Gender*Others						
Female/Feminine	-0.20	0.26	0.58	0.445	0.82	0.50, 1.36
Female/Equal	0.27	0.23	1.41	0.235	1.32	0.84, 2.07
TGNC/Feminine	0.23	0.28	0.66	0.416	1.26	0.72, 2.18
TGNC/Equal	0.51	0.25	4.40	0.036	1.67	1.03, 2.70
Self*Others						
Feminine/Feminine	-1.75	0.40	19.67	<.001	0.17	0.08, 0.38
Feminine/Equal	-1.24	0.39	9.86	0.002	0.29	0.13, 0.63
Equal/Feminine	-0.75	0.29	6.60	0.010	0.48	0.27, 0.84
Equal/Equal	-1.16	0.23	26.39	<.001	0.31	0.20, 0.49
Free/reduced lunch (ref: No)						
Yes	0.09	0.05	3.65	0.056	1.09	1.00, 1.19
Don't Know	0.00	0.06	0.00	0.955	1.00	0.88, 1.13
Family Affluence Scale (ref: High)						
Low	0.44	0.06	47.32	<.001	1.56	1.37, 1.76
Middle	0.21	0.04	23.97	<.001	1.23	1.13, 1.34

Race/Ethnicity (ref: White)							
Asian, PI, Black	0.08	0.06	1.44	0.231	1.08	0.95, 1.22	
Multi	-0.14	0.22	0.43	0.514	0.87	0.57, 1.33	
Latinx	-0.16	0.05	10.50	0.001	0.85	0.77, 0.94	
Other	0.15	0.11	1.84	0.175	1.16	0.94, 1.44	
County/County Cluster (ref: Central/Eastern cluster)							
Clark	-0.09	0.08	1.25	0.263	0.92	0.78, 1.07	
Deschutes	-0.13	0.10	1.80	0.179	0.88	0.73, 1.06	
Jackson	-0.06	0.09	0.44	0.508	0.94	0.79, 1.12	
Lane	0.14	0.09	2.42	0.120	1.15	0.96, 1.37	
Multnomah	-0.28	0.08	12.51	<.001	0.76	0.65, 0.88	
Washington	-0.16	0.07	4.75	0.029	0.85	0.74, 0.98	
North Coast	0.09	0.08	1.21	0.270	1.10	0.93, 1.29	
Willamette Valley	-0.03	0.07	0.23	0.634	0.97	0.84, 1.11	
Southwest	0.05	0.09	0.35	0.552	1.05	0.89, 1.24	
Grade (ref: Eighth)							
Eleventh	0.07	0.04	3.43	0.064	1.08	1.00, 1.16	
χ^2				1,329.12			
df				47			

Table 43

*RQ2: Gender*Self: Comparisons of suicidal ideation odds ratios with reference group Male / Masculine*

gender	self	Estimate	SE	p^a	exp (b)	95% CI	Probability
Female	Feminine	0.94	0.13	<.001	2.56	2.00, 3.28	0.31
Female	Equal	1.17	0.11	<.001	3.23	2.62, 3.97	0.36
Female	Masculine	1.50	0.17	<.001	4.47	3.20, 6.22	0.43
TGNC	Feminine	1.72	0.23	<.001	5.61	3.60, 8.76	0.49
TGNC	Equal	2.22	0.15	<.001	9.17	6.80, 12.37	0.61
TGNC	Masculine	1.46	0.14	<.001	4.32	3.31, 5.65	0.43
Male	Feminine	0.89	0.23	0.006	2.44	1.56, 3.82	0.30
Male	Equal	0.64	0.15	<.001	1.90	1.43, 2.53	0.25
Male	Masculine						0.15

^aBonferroni adjusted alpha level: $.05/8 = .00625$.

Table 44

*RQ2: Gender*Others: Comparisons of suicidal ideation odds ratios with reference group Male / Masculine*

Gender	Others	Estimate	SE	p^a	exp (b)	95% CI	Probability
Female	Feminine	0.60	0.15	0.002	1.82	1.37, 2.42	0.32
Female	Equal	0.86	0.15	<.001	2.36	1.76, 3.16	0.38
Female	Masculine	0.81	0.17	<.001	2.25	1.61, 3.14	0.37
TGNC	Feminine	1.51	0.19	<.001	4.52	3.10, 6.60	0.54
TGNC	Equal	1.58	0.21	<.001	4.87	3.21, 7.39	0.56
TGNC	Masculine	1.30	0.16	<.001	3.66	2.66, 5.03	0.49
Male	Feminine	-0.02	0.20	1.000	0.98	0.67, 1.45	0.20
Male	Equal	-0.23	0.18	0.983	0.80	0.56, 1.13	0.17
Male	Masculine						0.21

^aBonferroni adjusted alpha level: $.05/8 = .00625$.

Table 45

*RQ2: Self*Others: Comparisons of suicidal ideation odds ratios with reference group Masculine / Masculine*

Self	Others	Estimate	SE	p^a	exp (b)	95% CI	Probability
Feminine	Feminine	0.28	0.12	0.560	1.32	1.05, 1.67	0.28
Feminine	Equal	0.76	0.20	0.014	2.14	1.44, 3.16	0.38
Feminine	Masculine	1.25	0.32	0.010	3.48	1.86, 6.52	0.50
Equal	Feminine	1.00	0.14	<.001	2.72	2.09, 3.56	0.44
Equal	Equal	0.54	0.12	<.001	1.72	1.37, 2.18	0.33
Equal	Masculine	0.96	0.15	<.001	2.61	1.94, 3.52	0.43
Masculine	Feminine	0.79	0.22	0.036	2.20	1.42, 3.41	0.39
Masculine	Equal	0.75	0.15	<.001	2.12	1.58, 2.84	0.38
Masculine	Masculine						0.23

^aBonferroni adjusted alpha level: $.05/8 = .00625$.

Table 46

RQ2: Suicide Attempt: Likelihood ratio tests of effects for gender and 2-way interactions

	DF	Chi Square	p
Gender	2	144.17	<.001
Self	3	7.70	0.05
Others	3	5.05	0.17
Gender*Self	6	29.69	<.001
Gender*Others	6	6.21	0.40
Self*Others	9	58.19	<.001

Table 47

RQ2: Response profile for suicide attempts in the last 12 months

	Frequency
0 attempts	19,858
1 or more attempts	1,579

Table 48

RQ2: Coefficients and odds ratios for suicide attempt (N=21,437)

	B	SE	Chi Square	p	exp (b)	95% CI
Intercept	-3.30	0.11	911.36	<.001	0.04	0.03, 0.05
Gender (ref: Male)						
Female	1.63	0.22	53.18	<.001	5.10	3.29, 7.90
TGNC	1.49	0.16	87.24	<.001	4.44	3.25, 6.07
Self (ref: Masculine)						
Feminine	2.15	0.43	25.10	<.001	8.58	3.70, 19.88
Equal	0.93	0.28	11.41	<.001	2.55	1.48, 4.38
Others (ref: Masculine)						
Feminine	1.02	0.32	9.80	<.001	2.77	1.46, 5.23
Equal	0.29	0.25	1.42	0.23	1.34	0.83, 2.18
Gender*Self						
Female/Feminine	-1.87	0.37	25.83	<.001	0.15	0.07, 0.32
Female/Equal	-0.79	0.30	7.00	0.01	0.45	0.25, 0.81
TGNC/Feminine	-0.87	0.41	4.58	0.03	0.42	0.19, 0.93
TGNC/Equal	0.20	0.30	0.47	0.49	1.23	0.69, 2.20
Gender*Others						
Female/Feminine	-0.15	0.34	0.18	0.67	0.87	0.44, 1.69
Female/Equal	0.26	0.32	0.66	0.42	1.29	0.70, 2.40
TGNC/Feminine	0.24	0.35	0.46	0.50	1.27	0.64, 2.51
TGNC/Equal	0.35	0.32	1.21	0.27	1.42	0.76, 2.67
Self*Others						
Feminine/Feminine	-2.02	0.47	18.51	<.001	0.13	0.05, 0.33
Feminine/Equal	-0.72	0.48	2.26	0.13	0.49	0.19, 1.24
Equal/Feminine	-0.98	0.35	8.06	<.001	0.37	0.19, 0.74
Equal/Equal	-0.86	0.30	8.31	<.001	0.42	0.24, 0.76
Free/reduced lunch (ref: No)						
Yes	0.25	0.06	14.98	<.001	1.28	1.13, 1.46
Don't Know	0.05	0.09	0.26	0.61	1.05	0.88, 1.25
Family Affluence Scale (ref: High)						

	Low	0.34	0.09	15.04	<.001	1.41	1.18, 1.67
	Middle	0.20	0.06	10.90	<.001	1.22	1.09, 1.38
Race/Ethnicity (ref: White)							
	Asian, PI, Black	0.24	0.09	7.30	0.01	1.27	1.07, 1.51
	Multi	0.01	0.29	0.00	0.97	1.01	0.57, 1.80
	Latinx	0.02	0.07	0.09	0.77	1.02	0.89, 1.17
	Other	0.28	0.15	3.62	0.06	1.32	0.99, 1.76
County/County Cluster (ref: Central/Eastern cluster)							
	Clark	-0.27	0.11	5.83	0.02	0.76	0.61, 0.95
	Deschutes	-0.40	0.14	8.24	<.001	0.67	0.51, 0.88
	Jackson	-0.26	0.13	4.24	0.04	0.77	0.60, 0.99
	Lane	-0.02	0.12	0.03	0.87	0.98	0.77, 1.24
	Multnomah	-0.47	0.11	18.10	<.001	0.63	0.51, 0.78
	Washington	-0.39	0.10	14.63	<.001	0.68	0.55, 0.83
	North Coast	-0.21	0.12	3.34	0.07	0.81	0.64, 1.02
	Willamette Valley	-0.27	0.10	7.23	0.01	0.77	0.63, 0.93
	Southwest	-0.07	0.12	0.32	0.57	0.94	0.75, 1.17
Grade (ref: Eighth)							
	Eleventh	-0.16	0.06	8.17	0.00	0.85	0.76, 0.95
χ^2				834.56			
df				47			

Table 49

*RQ2: Gender*Self: Comparisons of suicide attempt odds ratios with reference group Male / Masculine*

Gender	Self	Estimate	SE	p^a	exp (b)	95% CI	Probability
Female	Feminine	0.95	0.16	<.001	2.59	1.88, 3.56	0.14
Female	Equal	1.20	0.14	<.001	3.32	2.50, 4.41	0.17
Female	Masculine	1.68	0.21	<.001	5.34	3.53, 8.09	0.25
TGNC	Feminine	1.87	0.27	<.001	6.47	3.83, 10.92	0.29
TGNC	Equal	2.12	0.18	<.001	8.30	5.84, 11.79	0.34
TGNC	Masculine	1.59	0.18	<.001	4.92	3.49, 6.94	0.24
Male	Feminine	1.15	0.30	<.001	3.15	1.76, 5.63	0.17
Male	Equal	0.32	0.23	0.16	1.37	0.88, 2.14	0.08
Male	Masculine						0.06

^aBonferroni adjusted alpha level: $.05/8 = .00625$.

Table 50

*RQ2: Self*Others: Comparisons of suicide attempt odds ratios with reference group Masculine/Masculine*

Gender	Self	Estimate	SE	p^a	exp (b)	95% CI	Probability
Feminine	Feminine	0.26	0.15	0.08	1.30	0.97, 1.75	0.13
Feminine	Equal	1.01	0.24	<.001	2.76	1.72, 4.42	0.24
Feminine	Masculine	1.23	0.38	<.001	3.44	1.63, 7.25	0.28
Equal	Feminine	0.80	0.17	<.001	2.23	1.59, 3.13	0.20
Equal	Equal	0.38	0.16	0.02	1.46	1.07, 1.98	0.14
Equal	Masculine	0.74	0.20	<.001	2.09	1.42, 3.09	0.19
Masculine	Feminine	1.05	0.26	<.001	2.85	1.71, 4.76	0.24
Masculine	Equal	0.50	0.20	0.01	1.65	1.11, 2.45	0.16
Masculine	Masculine						0.10

^aBonferroni adjusted alpha level: $.05/8 = .00625$

Discussion

This study examined aspects of the relationship between gender and wellbeing for adolescent youth using a relational developmental systems paradigm. This paradigm frames human development as a process of continuous coaction among multiple layers of individual and contextual influences (Overton, 2013; Overton & Müller, 2012). The present study focused on participants in their adolescent years, a period of rapid growth and change in both physical and psychological development (Dahl, et al., 2018). Identity development has long been understood as a critical task of adolescence, a task which involves coaction between an individual and their context, via the individual's presentation of self, which the individual modifies in response to the contextual reaction (Erikson, 1968). Given the unique gender-related variables on the 2017 Oregon Healthy Teen Survey, as well as the high percentage of youth identifying as TGNC in response to this survey, the 2017 Oregon Healthy Teens Survey data provided a unique opportunity to explore the relationship between youth gender and thriving as well as risk.

Prevalence of Youth Identifying as TGNC

One of the most striking aspects of the population included in the current study is the large percentage (5.48%) of youth who reported that they have a TGNC identity on the gender identity question. This rate is unprecedented for population-based surveys of youth. In addition, only 57.52% of females and 56.04% of males chose the fully gender-conforming options on the self-presentation and others' perception questions (that is, feminine self-presentation and others' perception as feminine for females, and masculine self-presentation and others' perception as masculine for males). In the sub-group of youth who chose clearly defined options for the three gender variables (i.e., they did not answer that they didn't know what the question was asking or that they were unsure of the answer), 15.78% of females identified themselves as presenting as either equally masculine and feminine, or as masculine, and 7.68% of males identified themselves as presenting as either equally masculine and feminine, or as feminine (see Tables 4 – 6). These numbers speak not only to the higher-than-expected prevalence of gender non-conformity, but also to the challenge of measuring it. The current study found that any level of gender non-conformity, that is, any deviation from feminine presentation or others' perception of feminine for females or from masculine presentation or others' perception of masculine for males, predicted lower levels of thriving and more adverse mental health outcomes. This finding may indicate that the impact of minority stress affects youth who present in ways that are gender non-conforming to any degree, whether or not they have decided to claim a TGNC identity.

This study's three gender-related variables provide information on a youth's perception of each level of this model: the internal sense of gender identity (female, male, or TGNC; "gender"), the individual's presentation of gender identity (feminine, equally feminine and masculine, or masculine; "self"), and the individual's understanding of how others' perceive that gender presentation (feminine, equally feminine and masculine, or masculine; "other"). Positive

identity development occurs in the presence of affirmative contextual support (Eichas, et al., 2015; Erikson, 1968; Motti-Stefanidi, 2015). When the contextual response is hostile, however, identity may develop in a way that is harmful to an individual's wellbeing. Through the bidirectional development process between an individual and their context, negative feedback has the potential to cause the individual to internalize hostility, a process described in the minority stress model (Meyer 2003, 2015). Extensive research has connected minority stress in TGNC adults to adverse mental health and wellbeing outcomes (e.g., Barrow & Apostle, 2018; Borgogna, et al., 2019; Bruce, et al., 2013; Hendricks & Testa, 2012; Meyer, 2015; Turban, et al., 2017; WPATH, 2011). A smaller body of research has focused on TGNC adolescents. This research indicates that, not only are TGNC adolescents more at risk for experiencing more adverse mental health and wellbeing outcomes than their gender typical peers (e.g., Jewell & Brown, 2014; Russell, et al., 2018; Sitkin & Murota, 2017; Testa et al., 2017), but they also face unique challenges because of their developmental stage (Russell & Fish, 2019). This study sought to contribute to this research by adding to the small but growing base of knowledge about adolescents who identify as TGNC. In addition, this study addressed a gap in the literature by including variables that indicate thriving (emotional and mental wellbeing, academic achievement, self-efficacy, and the presence of a caring adult at school) in the analyses.

Specifically, two sets of analyses were conducted that will be discussed at greater length in the section that follows. First, categories of gender identity (female, male, and TGNC) were examined as predictors of youth thriving (i.e., emotional and mental wellbeing, academic achievement, self-efficacy, and having a caring adult at school) as well as risk (i.e., depressive symptoms, suicidal ideation, and suicide attempt). Next, direct effects and interactions among three gender variables (i.e., gender identity, gender self-presentation, and evaluation of others'

perception of gender self-presentation) were added to each model to explore the added impact of these interactions on wellbeing outcomes. Taking an additive approach allowed for a comparison across data that might typically be collected in a survey including only a one-dimensional question about gender (i.e., “What is your gender?”) with questions that are not typically included, focusing on two additional dimensions of gender (i.e., “How do you see yourself?” and “How do you think other people at school would describe you?”).

Gender Identity as a Predictor of Youth Wellbeing

The first research question included a single dimension of gender, asking whether a youth’s internal sense of their own gender is related to mental health and wellbeing outcomes as well as thriving outcomes. Based on previous research and theory, I hypothesized that these outcomes would vary depending on the category of gender with which a youth identified, and that youth with a TGNC gender identity would fare worse than either male or female youth on each outcome. The results supported this hypothesis. Consistent with prior research, youth who identified as male reported more positive outcomes on all measures of mental health (emotional and mental health and wellbeing, depressive symptoms, suicidal ideation, and suicide attempt) than their peers (Fink et al., 2015; Galambos, Leadbeater, & Barker, 2004; Ge, Conger, & Elder, 2001). Also in line with previous research, youth who identified as female reported the highest grades (O’Dea, et al., 2018; Voyer & Voyer, 2014). Males in this study also reported higher scores on self-efficacy, which is aligned with some prior research (e.g., Årdal, Holsen, Diseth, & Larsen, 2018; Conway, Heary, & Hogan, 2015). In the only case for which females and males had the same outcome, youth who identified as either male or female reported having a caring adult at school to the same degree.

Youth who identified as TGNC, however, had the most adverse outcomes for every outcome variable in the study—those associated with thriving and those associated with risk. Outcomes for TGNC youth were strikingly negative for emotional and mental health. Compared to their gender-typical peers, TGNC youth reported the least positive outcomes on all measures of mental health, a finding that aligns with previous research (Eisenberg et al., 2017; Perez-Brumer, et al., 2017; Rider, et al., 2018; Toomey, et al., 2018). On the emotional and mental health and wellbeing variable, TGNC youth rated themselves nearly a full point lower on a five-point scale than their male peers. In addition, they were much more likely than their male or female peers to say that at some point during the preceding year they had felt so sad every day for two weeks or more that they had curtailed their usual activities. TGNC youth were also much more likely than males or females to say that they had considered or attempted suicide in the last year. They were more than five times more likely than males to say that they had considered suicide in the last year. This is a much greater magnitude than is found in previous research, which estimated rates among TGNC youth to be two to three times higher than male youth (Eisenberg et al., 2017; Perez-Brumer et al., 2017). In addition, TGNC youth in this study were over six times more likely than males to say that they had attempted suicide during the previous year.

Youth who identified as TGNC also scored significantly lower on grades, self-efficacy, and having a caring adult at school than youth who identified as female or male. A positive relationship with a non-parental adult at school makes thriving more likely (e.g., Bowers, 2014), so the lower outcome in this area for TGNC youth may be related to the lower outcomes for grades and self-efficacy. Future research should address this possibility.

As predicted by minority stress theory, youth in this study who identify as TGNC have less positive, less healthy outcomes compared to youth who identify as female or male. This result may be related to the cumulative impact of proximal and distal stressors on the TGNC youth, including not only contextual elements such as political discourse, school policies, and peer and family rejection, but also internalized self-stigma (Hatzenbuehler & Pachankis, 2016; Meyer, 2015). A youth who has embraced a TGNC identity to the extent that they were willing to check that box on a confidentially-administered survey (whether they publicly identify as TGNC or not) may have incorporated contextual hostility into their developing identity whether they are “out” or not to family, friends, or teachers. Internalized stigma is related to adverse mental health outcomes for people who identify as TGNC (Hatzenbuehler & Pachankis, 2016; Meyer, 2015). This group’s lower rate of having a caring adult at school is one indication that they may be lacking environmental support essential for thriving that their more gender-conforming peers are more likely to have. In addition, their lower grades and lower reports of self-efficacy indicate that they are not thriving at the same level as their female- and male-identified peers.

Gender Presentation and Evaluation of Others’ Perception

The second research question explored whether outcomes would differ when a youth’s self-presentation and evaluation of others’ perception of that presentation (shortened in this discussion to “others’ perception”) were taken into account along with the youth’s gender identity. The hypothesis that the relationship between a youth’s gender identity and each of the outcome variables would vary depending on which category of self-presentation and which category of others’ perception that the youth reported was supported in all cases for TGNC youth, and in some cases for female or male youth. The relationship between gender identity and

both self-presentation and others' perception is different for people whose gender identity is female or male, on the one hand, and people whose gender identity is TGNC, on the other. Femininity is socially defined to align with female gender identity (i.e., we expect females to be feminine and feminine people to be female, and we have ideas as a society about qualities that constitute femininity). Masculinity is socially defined to align with male gender identity (i.e., we expect males to be masculine and masculine people to be male, and we have ideas as a society about qualities that constitute masculinity). A person who identifies as transgender or gender non-conforming may embrace both femininity and masculinity, either of those categories, or neither (Ehrensaft, 2017; Martin & Ruble, 2010; Richards et al., 2016). Given the difference in the way that gender identity is related to self-presentation and others' perception for people who identify as female or male versus those who identify as TGNC, these two types of gender identity will be discussed separately, except in the case of having a caring adult at school, an outcome for which comparing results across all three gender identities provides the most relevant information.

Female and male gender identity. For youth identifying as female or male, reporting categories of self-presentation and others' perception that aligned with gender identity was associated with more positive or equal outcomes in most cases, while misalignment among any the three dimensions of gender was most often associated with more adverse outcomes. Only in the case of having a caring adult at school did alignment predict a worse outcome. This was the only outcome for which lack of alignment produced a better outcome, and only for males who presented as feminine with others' perception as feminine, and males who both presented and were perceived as equally feminine and masculine. Both of those groups reported that they had a

caring adult at school to a higher degree than males who both presented as and were perceived as masculine. This result is discussed in greater detail below, alongside the results for TGNC youth.

For the other outcomes (i.e., emotional and mental health and wellbeing, academic achievement, self-efficacy, depressive symptoms, suicidal ideation, and suicide attempt), reporting a self-presentation and an others' perception that was congruent with gender identity was more likely to predict better mental health and higher levels of thriving. For example, youth who identified as female, with a feminine self-presentation and others' perception as feminine, had the highest score for females for emotional and mental health. Likewise, youth who identified as male, with a male self-presentation and others' perception as male had the highest score for males for emotional and mental health. All differences between the gender-conforming reference group and any identity that diverged from gender conformity were significantly lower for emotional and mental health for both females and males. For females, a similar pattern held true for grades. Any deviation from feminine self-presentation and feminine others' perception predicted lower grades for females. For males, the only significantly lower grades reported was in the difference between the gender-conforming group, who presented as male and believed others saw them as male, and those with a self-presentation of feminine. Youth also reported significantly lower levels of self-efficacy when they also reported either a self-presentation or others' perception that did not align with their female or male gender identity.

Reports of self-presentation and others' perception were not as informative for depressive symptoms for females and males. In general, the more informative comparisons for this variable were between females and males, regardless of self-presentation or others' perception. As with the first research question, youth with a male gender identity were much less likely to report depressive symptoms than either youth with a female gender identity or youth with a TGNC

gender identity, regardless of category of self-presentation or others' perception. For depressive symptoms, the hypothesis that outcomes would vary with categories of self-presentation or others' perception was not supported for females and males.

For suicidal ideation and suicide attempt, however, different categories of self-presentation for females and males did predict outcomes that varied notably from one another. For example, every step away from feminine (i.e., gender conforming) self-presentation that a female-identifying youth reported predicted a meaningful increase in the likelihood that that youth reported considering suicide in the last year. Similarly, males reported an increasing likelihood of engaging in suicidal ideation when they also reported either an equally masculine or feminine self-presentation or a feminine presentation. The results are similar for suicide attempt: identifying as female and presenting as either equally feminine and masculine or as masculine predicted a higher likelihood of suicide attempt than identifying as female and presenting as feminine, with masculine-presenting females reporting the highest likelihood of suicide attempt among females. Likewise, feminine-presenting males report the highest likelihood of suicide attempt among males. Although these feminine-presenting males and masculine-presenting females do not claim a TGNC gender identity, they do report more adverse mental health outcomes than their more gender-conforming peers.

The question of why these gender mismatches occur is beyond the scope of this study. A youth may feel very secure in their male identity and simply like to talk or dress in ways that are not strictly masculine, or that youth may be concealing a TGNC gender identity, or the youth may be in the midst of a developmental process during which gender identity may change. Further research, especially with a qualitative component, might be able to tease out the meaning behind these discrepancies. Minority stress theory provides one possibility. This theory predicts

that contextual hostility will lead individuals to conceal their identity as gender non-conforming in order to avoid emotional rejection or physical violence (Hatzenbuehler and Pachankis, 2016). Prior research has found that such concealment may be particularly protective for adolescents, who are in a challenging position with regard to physical and emotional resources: they depend heavily on their families to provide these resources, and are at increased risk of losing them if they openly embrace an identity that may be rejected by their family (Russell & Fish, 2019). Some of the misalignment between gender identity and culturally-expected gender expression in this study may be the result of youth concealing a TGNC gender identity.

The variation in outcomes related to misalignment among the gender variables likely results from the reality that this misalignment is the very definition of gender non-conformity. As mentioned earlier in this paper, children and youth penalize degrees of gender non-conformity with loss of social status and gender-based teasing (Blakemore, 2003; Jewell & Brown, 2014; Olson & Gülgöz, 2018). The youth in this study who identify as female but present as or are perceived as other than feminine, or the youth who identify as male present as or are perceived as presenting anything other than masculine, are departing, at least to some degree, from the expected gender presentation for their gender identity. Even though they do not identify as TGNC, they are likely not benefiting from the contextual approval that youth whose gender identity does align with their self-presentation and others' perception of that presentation (i.e. feminine females and masculine males, receive).

TGNC gender identity. In general, outcomes for youth who identified as TGNC varied widely depending on level of self-presentation and/or others' perception that they reported. For this group's outcomes, including the categories of self-presentation and others' perceptions in analyses provides much more information than simply gender identity alone.

When self-presentation and others' perception are taken into account, TGNC youth outcomes often mirror outcomes of the gender identity that is aligned with self-presentation or others' perception. For example, youth who identify as male in results from the first research question reported higher emotional and mental health and wellbeing than youth in other gender identity categories. Similarly, youth with a TGNC gender identity who present as masculine and who believe that others perceive them as masculine scored significantly better than any other TGNC group on emotional and mental health and wellbeing. This group scored nearly a full point higher on this outcome than the lowest-scoring TGNC group, who present as equally feminine and masculine and believe that others perceive them as feminine. For academic achievement, the only TGNC group that varied significantly from the TGNC group that presented as masculine and were perceived by others as masculine was the group of youth who identified as TGNC, presented as feminine, and were perceived by others as feminine. These feminine-presenting and -perceived youth reported significantly higher grades than their masculine-presenting and -perceived peers. This outcome mirrors the outcome for academic achievement for females in the first research question. In the first research question, regarding self-efficacy, males scored higher than their female or TGNC peers. When gender presentation and others' perception were taken into account for the second research question, TGNC youth with masculine presentation and whom others perceive as masculine reported the highest level of self-efficacy of all TGNC youth.

TGNC youth also reported notable variation by category of self-presentation or others' perception for depressive symptoms, suicidal ideation, and suicide attempt. This variation was particularly striking for TGNC youth in different categories of self-presentation. The variation was not as impactful for TGNC youth in different categories of others' perception. The influence

of self-presentation was large. For example, TGNC youth who present as equally feminine and masculine have much worse outcomes for depressive symptoms, suicidal ideation, and suicide attempt than their TGNC peers who present as either feminine or masculine. TGNC youth who present as feminine consistently have much worse outcomes for depressive symptoms, suicidal ideation, and suicide attempt than their TGNC peers who present as masculine. All categories of TGNC youth report much worse outcomes for depressive symptoms, suicidal ideation, and suicide attempt than any of their female or male peers, but the notable differences among categories of self-presentation indicate the need for further research in this area.

Caring adult at school. Having a caring adult at school is one outcome for which self-presentation and others' perception are most informative when all three gender identities (female, male, and TGNC) are considered together. For TGNC youth, most of the categories of self-presentation and others' perception were not statistically different from the masculine-presenting and masculine-perceived reference group when reporting on having a caring adult at school. The two exceptions were TGNC youth who present as feminine and believe others perceive them as feminine and TGNC youth who both present as, and believe others perceive them to be, equally feminine and masculine. Both of these categories of TGNC youth reported significantly higher levels of having a caring adult at school than their TGNC peers. This finding is not parallel to the finding in the first research question, in which females and males were equally likely to say that they had a caring adult at school. When female and male gender identity is considered along with TGNC gender identity in light of self-presentation and others' perception, however, a pattern emerges. The group that most strongly endorses the statement that they have a caring adult at school within each gender identity (female, male, and TGNC) is the feminine self-presenting group that believes that others perceive them as feminine. For males,

this group is the only one that is significantly different from the reference group, which is the masculine self-presenting group that believes that others perceive them as masculine. For females, all but two groups that diverge from feminine self-presentation and others' perception as feminine score lower on this measure than this reference group, and these two groups report outcomes that do not differ significantly from the reference group. Interestingly, the group who reports the highest level of a caring adult at school out of all of the groups in the study is the group with a male gender identity, a feminine self-presentation, and who others perceive as feminine.

For youth of any gender identity in this study, then, feminine self-presentation, when coupled with the belief that others perceive the youth's gender presentation as feminine, predicts higher levels of having a caring adult at school. This is the case even for the category of males who present as feminine and believe others see them as feminine. Although all categories of TGNC youth still report the lowest levels of having a caring adult at school, among TGNC youth, the feminine-presenting youth perceived by others as feminine had the best outcome. This outcome could be related to gender role socialization, the process by which beliefs about defining characteristics and stereotypes of femininity and masculinity are internalized and perpetuated (e.g., John, Stoeberl, Ritter, Edmeades, & Balvin, 2017). One stereotype of femininity is that it is associated with being nurturing and socially-oriented (e.g., Koenig, 2018), two characteristics that may make connecting with a caring adult at school more likely. Conversely, successfully connecting with a caring adult at school might make a youth more likely to see themselves as feminine, and to report that they are presenting as feminine and that others perceive them as feminine.

The self/others interaction. The interaction effect between self-presentation and others' perception provides interesting information that should be explored further in future research. This interaction effect was significant in every model for the second research question. For example, presenting as equally feminine and masculine, and believing that others perceive presentation in this way predicts a three-quarters of a point higher score for emotional and mental wellbeing than the masculine/masculine reference group. The effect was smaller, but still significant for other thriving outcomes. For adverse mental health outcomes, the feminine/masculine interaction (that is, youth who report that they present as feminine but believe that others perceive them as masculine) was associated with the highest probability of endorsing depressive symptoms, suicidal ideation, and suicide attempt of all groups in the self-presentation/others' perception interaction. Reasons for these associations may be related to particular gender role socializations. For example, femininity is associated with concern over how one appears to others more than masculinity is (Reidy et al., 2018). A youth who reports presenting as feminine may be more concerned about the appearance of that presentation to others than youth who report presenting as equally feminine and masculine or as masculine. If that feminine-presenting youth believes that others are perceiving them as the opposite of the gender that they are intending to present, they may feel more distressed about this discrepancy than other youth.

Additional findings of note. Of the control variables, scoring in the low or middle range on the Family Affluence Scale II emerged as a significant predictor on all outcomes. Notably, for academic achievement, this variable had more impact than gender identity. For self-efficacy, scoring low on the Family Affluence Scale II had greater negative impact than being female. Prior research has found that low SES predicts lower academic achievement (Gordon & Cui,

2018; Owens, 2018; Paschall, et al., 2018) as well as lower self-efficacy (Boardman & Robert, 2000).

In addition, having a non-white racial/ethnic identity emerged several times as a significant predictor of outcomes. Most notably, having a non-white racial/ethnic identity was significantly associated with lower levels of having a caring adult at school, and being Latinx significantly predicted suicidal ideation. Although further research is needed to understand the reasons for these associations, the minority stress framework may provide a direction for future study. For example, the lower levels of having a caring adult at school that students of color report may indicate unconscious bias by the mostly white school personnel in Oregon. Large majorities of non-white students in Oregon report that they have not had a teacher who had the same race/ethnicity as they do in the last three years. For example, in Oregon, 72% of black high school students, 84% of Native American high school students, 70% of Multi-Ethnic high school students, and 58% of Asian high school students said that they had not had a teacher with their same race/ethnicity in the last three years. For Hispanic high school students in Oregon, 47% reported that they had not had a Hispanic teacher in the last three years. No white students reported this outcome (Oregon Office of Accountability, Research, & Information Services, 2017). In Oregon public schools, fewer than ten percent of teachers statewide are people of color, but 36.6 percent of students statewide are people of color (Blumenstein et al., 2016). Similar to minority stress theory, and in line with a relational developmental systems understanding of human development, implicit bias theory indicates that all participants in a cultural environment internalize the prevailing prejudices and stereotypes of that environment (Conaway & Bethune, 2015; Uhlmann & Nosek, 2012). In a school environment, this means that unless there are intentional efforts to contravene negative stereotypes of stigmatized populations, members of

both the dominant and non-dominant cultures are likely to share to share these negative views (e.g., Egalite, Kisida, & Winters, 2015). Future research should explore whether teacher implicit bias and student internalized stigma are related to the lower reports of having a caring adult at school given by youth of color.

Similarly, Latinx youth who indicate that they are suffering mental health detriment may be suffering in an environment which has become more openly hostile in recent years as Latinx identity becomes conflated with immigrant and refugee populations in media and political discourse. Future research should investigate the impact on Latinx youth mental health of federal and state law and policy, as well as of vitriolic rhetoric in public discourse.

Limitations

The present study had many strengths, however, there were several limitations that should also be noted.

Single-item measures. One major strength of the present study is that the 2017 Oregon Healthy Teens Survey included a unique set of gender-related variables that allowed for investigation of the relationship between multiple dimensions of gender on the one hand, and mental health and thriving outcomes on the other. However, all of the outcome variables were measured with only one item. Although having only one item in a measure is typical of this type of population-based surveillance survey, the outcome variables in this study could be understood in more depth with multi-item measures.

Excluded responses. The present study only included results from youth who chose a response that aligned with clear identification of gender, self-presentation, and others' perception (i.e., male, female, or TGNC; masculine, equally masculine and feminine, or feminine). Each gender-related variable included additional response options: "I am not sure," and "I do not

know what this question is asking.” For clarity on the relationships among clearly identified categories of gender identity, gender presentation, and others’ perception, youth who answered in this way were not included in the analyses for the current study. Future research should examine whether these participants varied by geographic area, race/ethnicity, SES, or age. Qualitative research may be particularly informative in understanding this response, by exploring what barriers to choosing a clearly defined category of gender identity, gender self-presentation, or evaluation of others’ perception of gender presentation these students may be facing.

Gender presentation as a spectrum. Within United States culture at large, people are engaged in a wide-ranging debate over the meaning of gender. One of the elements of this debate is the nature of gender variety, that is, whether gender expression is best described as a phenomenon that occurs on a single spectrum from feminine to masculine, or whether it could be better described as a function of multiple spectrums. For example, the current study assumes one spectrum, with feminine on one end and masculine on the other, and assumes that individuals are able to locate their gender presentation or others’ perception somewhere along that spectrum. Some researchers suggest, however, that gender expression may best be understood as a function of many spectrums together: one from very feminine to not feminine at all, another from very masculine to not masculine at all, and possibly others (American Psychological Association, 2015; Hyde, Bigler, Joel, Tate, & van Anders, 2019; Richards et al., 2016). This implies that being more masculine may not mean being less feminine: some people may identify as being both strongly feminine and strongly masculine, while others may feel that they are neither.

Gender identity in school. Although school-based surveys are an accepted method of public health surveillance (e.g., Shanklin et al., 2011), gender identity may be such a stigmatized subject that youth sitting in a classroom near their peers may not have felt comfortable answering

these sensitive questions honestly. In addition, they may not have trusted that the surveys, which were collected by their teachers in each classroom, were truly confidential.

Generalizability. Although this is a large, population-based sample, it is a sample from a generally culturally liberal state. For example, Oregon elected the first openly bisexual governor of any state. Benton County, home to Oregon State University, was one of the first jurisdictions in the United States to legalize same-sex marriage. Oregon was the first state to allow a third gender option (“not specified”) on state-issued identification cards. Also, in 2016 the Oregon Department of Education issued guidelines to school districts encouraging adherence to best practices for TGNC youth in public schools, including use of preferred pronouns and names on student identification cards, school documents, and in class, access to either gender-neutral bathrooms and locker rooms or to the bathroom and locker room of that matches the student’s gender identity, and guidance to minimize gender-based bullying (Oregon Department of Education, 2016). In addition, many parts of the state are known for political- and cultural-liberalism. For these reasons, youth in Oregon may be more aware of gender in general, and may be more willing to report gender non-conformity, at least in the more liberal parts of the state, than youth in less culturally liberal states. This cultural liberalism does not extend to every part of the state, however. In the parts of the state with less tolerant views, youth may have been less willing to report gender non-conformity.

Implications

A major implication of the findings in the present study is that TGNC youth need support. TGNC youth in this study report lower levels of emotional and mental health, academic achievement, and self-efficacy, along with much higher likelihood of experiencing depressive symptoms, engaging in suicidal ideation, and attempting suicide than their gender-typical peers.

In addition, they report having a caring adult at school, a key contextual asset for promoting thriving and decreasing adverse mental health outcomes, at lower levels than their gender-conforming peers. In order to meet the needs of this group of youth, policy-makers and service providers at both state and local levels should provide contextual supports proven to improve outcomes for TGNC youth (i.e., Gay-Straight Alliance clubs at school (Diaz, Kosciw, & Greytak, 2010; Kosciw, Greytak, Zongrone, Clark, & Truong, 2018; Russell & Fish, 2016), gender-neutral bathroom policies (Kosciw et al., 2018), policies to use youths' preferred name and pronouns (Russell & Fish, 2019), and anti-bullying efforts (Markow & Fein, 2005)). In addition, given the centrality of the family context for adolescent development, parenting education programs should increase efforts to educate parents on ways to support their TGNC youth (Fenaughty, Lucassen, Clark, & Denny, 2019; Kosciw et al., 2018; Ryan, 2009; Toomey et al., 2018). Further, adults should be aware that adolescents are listening: hostile political and social discourse and the policies that arise from this discourse increase the burden of minority stress on our youth (Meyer, 2003, 2015). In a striking example of the effect of this burden, bullying based on sexual orientation increased in schools in California during the time that that state was debating passing a ban on same sex marriage (Russell & Fish, 2019). Similarly, in the years before the United States supreme court decision legalizing marriage for all, suicide attempts for sexual minority youth decreased in states that passed laws approving of same-sex marriage, compared to states with laws prohibiting same sex-marriage (Russell & Fish, 2019).

A second implication of these findings is that service providers and researchers should consider improving how they ask questions or gather information related to gender and gender identity. For instance, service providers might include a TGNC option for gender identity on forms. Although the findings from the second research question indicate that this single

dimension of gender identity provides insufficient information for fully understanding many outcomes (and thus the needs of youth), the step of including a gender identity option beyond female or male may be challenging enough for cultural reasons that proceeding farther would be counterproductive to the goal of serving all youth better. Including a TGNC option is a positive step that will provide agencies with a more accurate profile of the population that they serve, and will allow researchers to further understand this under-studied population. In addition, this small step has the possibility of improving the supportiveness of a youth's context, by providing them with a more accurate reflection of their identity as well as signaling to them that they are in a safe place. This will reduce the minority stress that they experience, which will allow for more positive outcomes to emerge.

Third, asking about gender identity is essential, but, ultimately, not sufficient. The current study has shown that having information on only one dimension of gender identity masks the true nature of the population under study and leaves out an essential mediator of thriving and mental health outcomes. A direct implication of this finding is that, when gender is considered either in research or in services provided, it should, when possible, be assessed using more than one question. If we as researchers want to know why, for example, females so often report more adverse mental health outcomes than males, we should consider that females are not a monolithic group gender-wise: this study shows that many youth consider themselves to be female, and will answer as such, even when they are presenting to the world as something other than feminine. These youth may be suffering not because of their gender identity, but because of their gender presentation or the perceptions of others related to their gender presentation. Similarly, the current study finds that gender presentation varies widely among youth with a TGNC gender identity, and that thriving and mental health outcomes vary significantly depending on that

second dimension of gender. Simply having one gender question with a TGNC option is an improvement over the traditional binary option of female or male, but researchers and service providers should be aware that it may not be enough. Finally, asking about more than one dimension of gender allows researchers or service providers to gather a more accurate understanding of the population that they are serving. Having TGNC options on the 2017 Oregon Healthy Teen Survey yielded results that showed a much higher percentage of youth who identify in this category than other studies previously found. Having the additional gender questions made visible an even higher percentage of youth who identify as something other than feminine-presenting females or masculine-presenting males, whose gender non-conformity is impacting their thriving and mental health outcomes.

Conclusion

Given the urgency of the growing problem of suicide among adolescents, and the much higher likelihood of suicidal ideation and suicide attempt among gender non-conforming youth in this study, future research on both of these aspects of mental health should take gender non-conformity into account. In particular, given the large probability of TGNC youth engaging in both suicidal ideation and suicide attempt, gender non-conformity may emerge as a predictor of progression from ideation to actual attempt, a progression which is currently poorly understood (Klonsky et al., 2016). Gender is already known to be related to the progression from suicidal ideation to completed suicide: females report higher rates of suicidal ideation and suicide attempt than males, but suicide rates are higher for males than for females (Cash & Bridge, 2009). Based on the findings in the current study, future research should take more than one dimension of gender into account when investigating factors that predict when a youth may decide to move from considering suicide to attempting it.

In addition, future research involving TGNC youth should continue to include variables that indicate thriving, along with variables that measure contextual support. Research should also continue to discover which environmental supports are needed to help this population thrive. In particular, future research should explore possible mediators between TGNC gender identity and outcomes that indicate thriving or risk, including examining the presence of a caring adult at school and self-efficacy as mediators, as well as reasons that TGNC youth report lower levels of having a caring adult at school.

If we embrace the idea that youth are resources to be developed rather than problems to be managed, the current study and others make clear that gender non-conforming youth are an underdeveloped resource. By including gender non-conforming options on surveys, including options that allow youth to report more than one dimension of their gender, and by including variables that measure thriving, researchers and service providers can more effectively obtain information about and thus provide the type of knowledge required to inform and develop resources and programs to effectively support all youth to develop to their full, healthy potential.

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