Finding Our Strength

SURVEY

COPING WITH DISCRIMINATION:

Actions taken by the Transgender/ Gender-Nonconforming Community

November 2017

TRANSCEND THE BINARY
Ferndale, Michigan

In partnership with

THE UNIVERSITY OF MICHIGAN COLLEGE OF PHARMACY
Ann Arbor, Michigan

FINDING OUR STRENGTH SURVEY

CORE RESEARCH TEAM

Peter Batra, University of Michigan
Nancy JW Lewis, PharmD, MPH, University of Michigan
Brayden Misiolek, Transcend the Binary
Stuart Rockafellow, PharmD, University of Michigan
Caitlin Tupper, LCSW, Transcend the Binary

CONTRIBUTORS

Katherine Cho, PharmD
Tessa Cholewicki
Andrea Cogswell, PharmD
Blake Cogswell
Devin Cooper
Jack Earls
Danielle Emerson
Jenish Patel, PharmD
Morgan Shaw-Andrade
Leslie Shimp, PharmD, M.S.
Jenny Yuan, PharmD

THANK YOU

Transcend the Binary would like to thank our focus group participants who guided the Finding our Strength survey design and our community partners that assisted in survey implementation.

SUGGESTED CITATION

Nancy JW Lewis, Peter Batra, Brayden Misiolek, Stuart Rockafellow, Caitlin Tupper: Finding our Strength Survey: Actions taken to cope with discrimination by the transgender/gender-nonconforming community. Transcend the Binary. Ferndale, MI. 2017

`

FOREWORD

Transcend the Binary (Transcend) was initiated in 2014 as an advocacy organization for the transgender/gender non-conforming (trans) community in the Metro Detroit area. It was the vision of Darnell Jones, a pharmacist ally, who recognized the barriers to healthcare within the community to create a volunteer organization that would support and link trans patients to healthcare and social services. Transcend was founded on the belief that all people have the right to define their own gender identity, that all gender journeys are valid, ongoing and deserve to be supported.

Through its diversity of clients, Transcend interacts with individuals who face adversity and are seeking to find or strengthen their resiliency to discrimination. With the goal of fostering strength in all, we sought to understand what instilled this strength in some and what held it back from others. To meet this goal, Transcend initiated the *Finding our Strength Survey.*

This survey report is intended to create awareness about trans lives, generate new perspectives that can translate into greater individual and community resiliency, and stimulate public conversations that foster an environment that is affirming of the trans community.

EXECUTIVE SUMMARY

Our findings paint a picture of a population in distress. Household income levels were low with nearly 3 in 4 individuals reporting difficulties meeting financial needs. Anxiety and depression risk were high and self-reported health status was low compared to U.S. population statistics. Social support often came from a significant person or friends with lower levels of family support reported.

Worry about discrimination was pervasive in all settings: personal and social situations, school/college, workplaces, and healthcare settings. While the degree of individual worry about discrimination varied among settings and respondents, all were affected by discrimination.

Coping actions included the gender journey itself, frequent preparation for discrimination (heightened vigilance) and taking active and passive/avoidant actions. Gender journeys varied greatly among respondents but typically began in childhood. Actions to medically affirm gender were associated with improved health. Stigma was internalized by some; most prepared for discrimination on a routine basis. A mix of both active and passive/avoidant actions were used to cope with discrimination. These actions varied in their reported effectiveness. Our respondents were generous and direct in their sharing of advice via written responses.

Findings indicate a need for further education about the trans community along with transgender rights and issues in societal, schools/colleges, workplaces and healthcare settings. They also suggest that the use of active coping strategies that have been found to be effective should be promoted since the use of passive coping actions was associated with more severe anxiety, more depression, lower self-reported health status and more loneliness. Lower discrimination worry, higher family support, and the use of hormone therapy and surgery to affirm authentic gender where associated with better health measures.

Recommendations for action include furthering efforts to strengthen the trans community through leadership, skill-development, social support and networking. Actions to diminish worry about discrimination and expand the prevalence of gender affirming schools, workplaces and healthcare

settings are promoted. Enhancing understanding and communication between those in the transgender non-conforming community and cisgender community is advised.

BACKGROUND

The pervasive discrimination faced by the trans population is well documented (Grant et al, 2011; James et al, 2015). Adversity can be present within homes, at family gatherings and in social situations. The 2015 U.S. Transgender Survey reported that 10% of respondents experienced violence from a family member and 8% were kicked out of their home (James et al, 2016). While federal and some state laws protect against gender discrimination in certain settings, such protection does not apply to public places leaving individuals at risk of harassment and physical harm (Reisner et al, 2015).

Discrimination extends from elementary school into college settings (Beemyn et al, 2005; James et al, 2016; Kosciw et al, 2016; McCann and Brown, 2017). The 2015 US Transgender survey reported that 24% of student respondents who were thought or known to be trans were verbally, physically, or sexually harassed (James et al, 2016). Lesbian, gay, bisexual and trans (LGBT) college students report higher rates of discrimination than non-LGBT students (Blosnich et al, 2015). The 2015 National GLSEN School Climate Report (Kosciw et al, 2016) reported that 43.3% of trans students felt unsafe at school with 71.5% avoiding school functions because they felt unsafe or uncomfortable.

Discrimination continues into workplaces resulting in barriers to employment, limited career advancement, harassment at work, and loss of employment (James et al, 2016). Lack of appropriate gender identification on legal records raises significant anxiety and hurdles during job hiring processes. Co-worker stereotyping and lack of knowledge about legal requirements and workplace policies foster discrimination and create barriers to openness about gender identity (Eliason et al, 2011; Law et al, 2011).

Discrimination is also experienced within healthcare settings where gender identity and healthcare needs intersect (Albuquerue et al, 2016; Bauer et al, 2014; Bradford et al, 2013; Cruz, 2014; Grant et al, 2011; James et al, 2016; Macapagal et al, 2016; Sanchez et al, 2007). Numerous individual, interpersonal and structural factors influence access to care (White Hughto, et al, 2015). Dysphoria (i.e., self-conflict between body appearance and gender self-identity) can result in significant anxiety, depression and the postponement of needed healthcare services (Deutsch, 2016; Glynn et al, 2016). While no conclusive prevalence for dysphoria is known (Bockting et al, 2011), one study of 660 trans individuals found dysphoria was higher among transgender women than transgender men (van de Grift et al, 2016).

Healthcare costs, both overall and for hormone therapy and surgery related to medical affirmation, past experiences of embarrassment at health facilities, and health professionals' lack of gender-affirming skills cause some to avoid care (Cruz, 2014; Daniel and Butkus, 2015; McCann and Brown, 2017). Delaying healthcare due to discrimination fear by transgender individuals has been linked with depression and increased suicide ideation or attempts (Seelman et al, 2017). While gender-affirming care does exist, resources to guide trans patients to such care are often lacking (Khalili et al, 2014; Lerner and Robles, 2017).

Discrimination is one of many stressors experienced by the trans population that has been linked to poor health via the Minority Stress Model (Seelman et al, 2017). Psychological anguish, anxiety, depression and lower self-reported health status have all been linked to such stressors (James et al,

2016; Redfern et al, 2016; Reisner et al, 2015; Seelman et al, 2017). Lifetime depression rates as high as 62% have been reported for the trans population (Hoffman, 2014; Jefferson et al 2014). Reported anxiety rates range from 26% to 47.5% with results dependant upon the population studied and measurement methods (Budge et al, 2013). One online survey of over 1000 self-identified trans persons reported anxiety rates of 33.2% (Bockting et al, 2013). Self-reported health status is a general health measure that is a good predictor of overall morbidity and mortality (McGee et al, 1999). Within the US Transgender Survey (James et al, 2016) 22% reported their health as fair or poor. In the 2014 BRFSS Transgender group 22.9% reported poor or fair health compared to 16.9% of cisgender respondents (i.e., those whose sense of personal identity and gender corresponds with their birth sex) (Streed et al, 2017).

To fight discrimination, the trans community advocates for policies that protect human rights and addresses gender equality. Public campaigns increase awareness and inform the general public, families and social institutions about the needs of trans individuals. Higher education institutions and employers have taken steps to lower discrimination in their institutions and to implement policies that create a more accepting environment for gender expansive students (Beemyn, 2008; Eliason et al, 2011; Ewton and Lingas, 2015; Law et al, 2011). Health professionals increasingly recognize the need for expanded knowledge about transgender care (McPhail et al, 2016; Johnson and Sheerer, 2017; Newsome et al, 2017).

Within the healthcare sector, education and implementation of gender-affirming policies and procedures has increased (Cocohoba, 2017; Daniel and Butkus, 2015; Human Rights Campaign Foundation, 2016; Institute of Medicine, 2011; McPhail et al, 2016; Newsome et al, 2017). Practice guidelines and professional policy statements promote competent care and urge practitioners to adopt gender-affirming patient care processes (Bockting et al, 2011; Callen-Lorde Community Health Center, 2017, Coleman et al, 2011; Daniel and Butkus, 2015; Deutsch, 2016).

Less is known about coping actions on a personal level, the effectiveness of these actions, and the impact they have on health and well-being. Minority discrimination stress models suggest that internalization of discrimination and heightened vigilance to avoid discrimination can increase health risks (Clark, 2000; Oyserman et al, 2007; Himmelstein et al, 2015; Krieger, 1990; Moody-Ayers et al, 2005).

Qualitative and quantitative research indicates individuals may leave home, school, workplaces or not seek healthcare in order to avoid discrimination (Cruz 2014; Graham et al, 2014; Grant et al, 2011; James et al, 2016; Koken et al, 2009). Individuals also coped by seeking social support through friends, support groups, trans organizations and online resources (McCann and Brown, 2017). Others adopted positive self-caring that fostered self-validation and decreased depression (Jefferson et al, 2014). For some, but not all, affirmation of one's gender identity through hormone therapy decreased anxiety and depression and improved quality of life (Costa and Colizzi, 2016; Glynn, 2016; Gorin and Lazard, 2011; White Hughto et al, 2015; White Hughto and Reisner, 2016).

Recognition of mediating factors, such as race, ethnicity, and socioeconomic status, in coping responses is important (Bauer et al, 2015; Glynn et al 2016; Kareff and Ogden, 2013; Lerner and Robles, 2017). While social support often negates the stress of discrimination, the degree of social support received is not always predictive of whether a trans individual suffers from anxiety and/or depression (Bockting et al, 2013; McCann and Brown, 2017).

In conclusion, there are significant data on transgender discrimination and a growing body of research about coping responses and their impact on health. However, further information about the effectiveness of these responses is needed. What actions help people cope? How effective do they perceive their actions to be? What creates resiliency in their lives? How do we effectively incorporate these views into the creation of trans programs and interventions? Answers to these questions can inform a debate about what creates and sustains resiliency within the trans community.

FINDING OUR STRENGTH SURVEY AIMS

The survey used a community-driven research process to:

- Expand information about coping actions taken by trans individuals
- Increase understanding of the relationships between discrimination, coping and health

FINDING OUR STRENGTH SURVEY METHODOLOGY

Finding our Strength was an online survey of U.S. self-identified transgender/gender non-conforming (trans) adults 18 years old and older. Trans community leadership guided survey objectives, content, format and design. Input was received through individual conversations with trans community leaders and members, a focus group, and two pilot testing phases. Input identified community concerns and salient and important topic areas, enhanced understanding of the information that the trans community felt comfortable sharing, and honed in on questions and response options that were gender affirming and non-offensive to the majority.

Survey content

Using a combination of multiple-choice, closed- and open-ended questions, *Finding our Strength* gathered information about:

- Worry about discrimination associated with personal and social situations, workplaces, schooling and healthcare settings
- Actions taken to cope with discrimination including the gender journey chosen
- The perceived effectiveness of coping actions taken
- Respondent demographic characteristics, health status and social support

Survey items

Demographic characteristics included age, race/ethnicity, education, household income, ability to meet financial needs, marital status, parental or guardian status, and zip code. Gender was requested as a write-in response to respect individual definitions of gender identity. No personal identifiers, such as name and address, were requested.

Discrimination was defined as being treated in any of the following ways: with less respect or receiving poorer service, as if you are not as smart as others, as if they are afraid or confused by you, or

being threatened or harassed. The Everyday Discrimination Scale was a basis for this definition (Williams et al, 1997).

Worry about discrimination was measured since community members indicated that daily worry, not fear, affected their quality of life the most. Discrimination worry was discerned by asking “How worried are you about experiencing discrimination in the following situations?” For healthcare discrimination the question asked was, “How worried are you about experiencing discrimination when seeing these healthcare professionals?” Professionals included primary care providers (PCP), pharmacists, dentists, psychiatrists, transgender specialists and counselors/therapists for services for the trans community. Response options included: “not at all,” “very little,” “somewhat,” and “a lot.” Since nearly all respondents answered questions about discrimination worry in personal and social situations, a discrimination worry score was created by coding responses to these items from 0 (not at all/very little) to 2 (a lot) and summing them to create a composite score ranging from 0 to 18.

Age at four gender-related life events described the gender journey. The events included: “first felt you were different,” “first realized that you identified as gender variant/trans,” “began to be open about your gender identity with others,” and “started taking medicines or used other medical resources to affirm your gender identity.” For responses like “as long as I can remember” or “since I was born” an age of two was recorded. If an age range was given the youngest age was recorded.

A list of commonly used coping actions was created from community discussions. Coping action use and effectiveness were discerned with the following question, “How much do the following help you cope with discrimination you may have experienced?” Response options included: “never tried this,” “not at all,” “very little,” “some,” and “a lot.” Coping actions were categorized as active or passive. Active actions were those that were action-oriented and alleviated stress. Passive coping skills demonstrated avoidance, showed resignation to stress, and utilized activities to ignore stress.

The following scales were included in the survey. Scale modifications were made, as deemed necessary, to improve ease of response and to create a better fit to trans population experiences.

The Heightened Vigilance Scale (Williams,1997) measured the frequency with which individuals took actions to prepare for discrimination with frequencies ranging from “almost every day” to “less than once a year/never”. Item responses were scored from 0 to 5 (with “almost every day” being 5) and summed to develop a scale ranging from 0 to 25.

A modified version of a subscale of the McNeilly Perceived Racism Scale (McNeilly et al, 1996) measured the degree to which specific actions were taken in response to discrimination. Items were limited to those thought to be most pertinent to the trans community. The item stem was, “Please indicate if you did each of the following things in response to discrimination.” Response options included: “not at all,” “some,” and “a lot.”

The Self-Kindness subscale of the Self-Compassion Scale (Neff, 2003), a 5-item scale, asked about internal coping actions to deal with situations of pain or failure. Scale options ranged from 1 to 5 with 1 being “almost never” and 5 being “almost always”.

The Patient Health Questionnaire-2 (PHQ-2), a two-item scale, screened for depression risk by measuring the frequency of depressed mood and anhedonia over the past two weeks (Maurer, 2012). Response options included: “not at all,” “several days,” “more than half the days,” and “nearly every day.” A cut-off score of 3 was used to create two risk levels: low and high.

The General Anxiety Disorder-7 Scale (GAD-7), a seven-item scale screened for anxiety (Spitzer et al, 2006). Item responses were summed with scores categorized as the following: <5 = minimal anxiety, 5-9 = mild anxiety; 10-14 = moderate anxiety and scores ! 15 = severe anxiety. The GAD-7 was accompanied by a one-item question that asked, “If you checked off any problems in the question above, how difficult have these made it for you to do your work, take care of things at home or get along with other people?” Response options included: “not difficult at all,” “somewhat difficult,” “very difficult,” and “extremely difficult.”

Mind-body congruence was measured by three questions developed for this survey: “My appearance is in sync with my gender identity,” “My physical body represents my gender identity,” and “My mind and body are in sync.” The stem question was, “How comfortable are you with the following statements?” Response options included: “not at all,” “somewhat,” “comfortable,” and “very comfortable.” Item responses were summed (“not at all”= 0 and “very comfortable”= 3) to create a scale score ranging from 0 to 9.

Self-reported health status was measured through the question: “Compared to other people your age, would you say your health is…?” Response options included “poor,” “fair,” “good,” and “excellent.”

A modified version of the Multi-Dimensional Scale of Perceived Social Support Scale was used (Zimet et al, 1988). One item related to significant other support was erroneously left out from the questionnaire. Responses were modified to include only 5 response options: “strongly disagree,” “mildly disagree,” “neutral,” “mildly agree,” and “strongly agree.” Item means were calculated and response scores were divided into 3 equal groups (low, moderate or high support) based on score distribution.

The three-item Loneliness Scale (Hughes et al, 2004) measured loneliness and social isolation. Scale items addressed lack of companionship, feeling left out and feeling isolated with response options being: “hardly ever", “some of the time,” and “often”. The items were summed (“hardly ever”= 0 and “often”= 2) to create a scale score ranging from 0 to 6.

Population inclusion criteria

To be eligible for survey inclusion, the participant had to be:

- An adult 18 years old or older
- A U.S. Citizen
- Self-identified as transgender or gender non-conforming

Respondent recruitment process

The *Finding our Strength* survey was posted in a link on the Transcend webpage. Participants were instructed that answers were anonymous; they could forego answering any question and could exit the survey at any point. No incentive was given for survey participation. Survey participants were encouraged to ask others to complete the survey. Local and regional LGBT organizations were asked to notify their members about the survey and flyers were distributed at LGBT events throughout metropolitan Detroit. Facebook ads were purchased to encourage participation. This augmented snowball recruitment approach is commonly used in small minority populations that are difficult to identify and reach through

traditional avenues (Bradford et al 2013; James et al, 2015). The survey was available online from June 2016 through November 2016.

Data analysis

The database of 325 responses was examined for completeness and conformity to inclusion criteria. Nine respondents were excluded due to a missing age response or age less than 18 years, non-US citizenship or in cases where a significant number of items were left blank resulting in 316 usable responses. Not all respondents answered all questions therefore the number of responses may be less than 316 for a given item as noted within the tables.

Data analysis included descriptive, chi-square and regression analysis. Validated scales responses were analyzed according to published guidelines. The analytical work was exempted from Investigational Review Board (IRB) review since the data contained no personal identifiers.

All results except those where more detailed values were deemed needed were rounded to whole numbers thus some percentage results do not add to 100%. Mean values are reported with standard deviations (SD). Median values were reported in lieu of average values when the value distribution was skewed. A statistical significance level of $p<0.05$ was used.

Respondent demographic data are compared to data from the 2010 U.S. Census, the American Community Survey, the 2014 Behavioral Risk Factor Surveillance Survey (BRFSS) and the 2015 U.S. Transgender Survey data, when applicable. The U.S. Census gathers information from over 300 million people every 10 years. The U.S. Census also conducts an annual American Community Survey 2011-2015, which gathers information via the Internet, mail, telephone interviews and in-person interviews from about 3.5 million households. The BRFSS is a telephone survey conducted each year that reaches over 400,000 adults in all 50 states, D.C. and three territories. The 2014 BRFSS included a question about gender identity, which captured data about 691 transgender adults from 19 states and Guam. The US Transgender Survey surveyed 27,715 individuals from all 50 states, U.S. territories and U.S. military bases using a snowball recruitment method augmented with assistance from LBGT organizations.

DEMOGRAPHIC AND HEALTH CHARACTERISTICS

Age

The median age of respondents was 27 years with 81% younger than 45 years. Only 8 respondents reported an age of 65 or older.

Respondent Age Distribution by Percentage of Respondents

	Finding our Strength Survey (n=313)	2015 US Transgender Survey[1]	2014 BRFSS Transgender Group[2]	2010 U.S. Census[3]
18 to 24 years	39%	42%	14%	10%
25 to 44 years	41%	42%	30%	27%
45 to 64 years	17%	14%**	39%	26%
65+ years	3%	2%	16%	13%

[1]James et al, 2017 [2]Meyer et al, 2017 [3]Howden and Meyer, 2011

Our results were similar to those of the US Transgender survey. They differed, however, from the BRFSS Transgender Group survey and the US Census in that our population tended to be younger.

Gender

Through an open-ended question on gender, more than 40 different grouping of gender identities were reported (e.g., transgender, queer, man, bigender). In keeping with Transcend's philosophy of self-defined gender, these responses were not categorized into transmale, transfemale and other categories.

Race

Most respondents identified as white, while nearly 12% of all respondents reported being multi-racial. Each single racial category, other than white, included less than 3% of respondents.

Racial and Ethnicity Composition by Percentage of Respondents

	Finding our Strength Survey (n=313)	2015 U.S Transgender Survey[1]	2014 BRFSS Transgender Group[2]	2010 U.S. Census[3]
White	80.5%	62.2%	62.3%	72.4%
African American	2.2%	12.6%	15.9%	12.6%
Hispanic/Latino	2.9%	16.5%	14.2%	16.3%
Asian	1.0%	5.1%*	2.4%	4.8%
Native American	1.3%	0.7%	2.6%	0.9%
Native Hawaiian or other Pacific Islander	0.3%		0.4%	0.1%
Two or more races	11.8%	2.5%	2.2%	9.1%

[1]James et al, 2017 [2]Meyer et al, 2017 [3]Humes et al, 2011
*Asian includes Native Hawaiian/Pacific Islander

Marital status

Slightly more respondents indicated that they were married or partnered than single. While the percentage single was similar among surveys, a much higher percentage of people reported being married in the 2014 BRFSS Transgender Group.

Respondent Marital/Partnership Status by Percentage of Respondents

	Finding our Strength Survey (n=315)	2014 BRFSS Transgender Group[2]
Married	22%	50%
Partnered	34%	3%
Single	44%	47%

[1]James et al, 2017
[2]Meyer et al, 2017

Educational status

The highest educational status achieved as reported by respondents is shown in the table below. Our survey sample included few individuals who attained less than a high school degree or GED. Nearly half of respondents had a college degree and about one-third had attended some college but had not yet received a college degree. Compared to our respondents, U.S. Transgender survey respondents were

more likely to have completed some college education. However, our respondents were more likely to have received some college education or a college degree than the general population. Comparisons in college degree attainment among the surveys are tenuous because surveys differed in their inclusion of technical and associate degrees within the college degree category.

Education

Highest Educational Achievement by Percentage of Respondents

	Finding our Strength Survey (n=312)	2015 US Transgender Survey[1]	2014 BRFSS Transgender Group[2]	2016 U.S. Census[3]
< High school degree	4%	2%	23%	12%
High school or GED	19%	11%	42%	29%
Some college, no degree	29%	40%	23%	19%
College degree	36%*	34%**	13%***	29%**
Graduate or professional degree	13%	13%	-	11%

[1]James et al, 2017 [2]Meyer et al, 2017 [3]U.S. Census, 2016
*Included technical, associate, and baccalaureate degrees **Included associate and baccalaureate degrees
***Included technical and college degrees

Income

The percentage of households with annual incomes less than $10,000 was nearly three times that of the U.S. population. In addition, a lower percentage had household incomes above $50,000. However, compared to the U.S. Transgender Survey, a lower percentage of households earned less than $25,000. When asked about their ability to meet financial needs, 72% of 312 respondents indicated that their ability to do so was fair or poor.

Annual Household Income by Percentage of Respondents

	Finding our Strength Survey (n=297)	US Transgender Survey[1]	American Community Survey, 2011-2015
Less then $10,000	14%	30%	5%
$10,000-$24,999	28%	25%	11%
$25,000-$49,999	27%	21%	22%
$50,000-$99,999	20%	15%	33%
$100,000 or more	11%	9%	30%

[1]James et al, 2017

Geographical location

Geographical location data were provided by 246 respondents from 33 states representing all regions of the U.S. Nearly half (48%) lived in the Midwest and 87% lived in urban or suburban areas.

Depression risk

While most respondents (79%) were at low risk for depression, 21% were at a high risk. Twenty-two percent of the BRFSS Transgender Group reported a diagnosis of depression while the rate was 18% among cisgender BRFSS respondents (Streed et al, 2017). The CDC reported that from 2009 to 2012,

7.6% of Americans aged 12 and older had moderate or severe depressive symptoms in the past 2 weeks (Pratt et al, 2014).

Generalized anxiety disorder (anxiety)

Eighty percent of respondents reported some degree of anxiety and 30% reported severe anxiety. For 87% anxiety caused some degree of difficulty with daily life with 42% reporting that daily life activities were very or extremely difficult due to anxiety. The U.S. population 12-month prevalence of anxiety is 18.1% (Kessler et al, 2005).

Anxiety Level by Percentage of Respondents (n=316)

Minimal	19%
Mild	28%
Moderate	23%
Severe	30.00%

Self-reported health status

Over 45% of respondents reported “fair” or “poor” health status. Only 5% rated their health as “excellent” while 31% rated their health as “poor.” For persons of all ages within the US population about 10.1% rate their health status as “fair” or “poor” (National Center for Health Statistics, 2017).

Mind-body congruence

The majority reported low mind-body congruence. Responses suggest that congruence between external appearance presented to others in public and gender identify were greater than congruence between physical body appearance and gender identity.

Degree of Comfort with Mind-Body Congruence Items by Percentage of Respondents

	Not at all	Somewhat comfortable	Comfortable	Very comfortable
My appearance is in sync with my gender identity (n-314)	17%	46%	25%	12%
My physical body represents my gender identity (n=315)	41%	41%	14%	5%
My mind and body are in sync (n=314)	33%	42%	15%	10%

Key Findings: Demographic and Health Characteristics

- Our population was young, mainly white and lived in suburban/urban areas.
- Household income levels were low and nearly 3 in 4 individuals reported difficulties meeting financial needs.
- About half of our respondents had a college degree.
- Anxiety and depression risk were higher and health status was lower than the U.S. population overall. Mind-body congruence appeared to be low.

SOCIAL SUPPORT

Respondents were asked about support from family, friends and a special person. Respondents could define family in a manner that was most meaningful to them, thus responses could reflect opinions about biological or chosen family.

Degree of Family and Friend Support Reported by Respondents

	Mean (SD)*
My family really tries to help me (n=314)	3.1 (±1.4)
I get the emotional help and support I need from my family (n=313)	2.7 (±1.4)
I can talk about my problems with my family (n=312)	2.6 (±1.4)
My family is willing to help me make decisions (n=312)	2.7 (±1.4)
My friends really try to help me (n=312)	3.9 (±1.2)
I can count on my friends when things go wrong (N=313)	3.7 (±1.2)
I have friends with whom I can share my joys and sorrows (n=312)	4.0 (±1.1)
I can talk about my problems with my friends. (n=312)	3.9 (±1.2)
There is a special person around when I am in need (n=314)	3.9 (±1.4)
There is a special person with whom I can share my joys and sorrows (n=314)	4.0 (±1.3)
There is a special person in my life who cares about my feelings (n=313)	4.2 (±1.3)

Multi-dimensional Scale of Perceived Social Support where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Respondents tended to report higher support from a special person or friends compared to family. Written comments indicated that the special person was often a relative, friend, partner, co-worker or teacher. While 30% reported that they could count on friends when things go wrong, 21% reported that their family really tries to help them. A higher percentage felt open to talk about their problems with their friends than family (38% friends versus 13% family). Despite the social support reported above, 42% indicated they often lack companionship and 50% often felt left out. Thirty-three percent said they felt isolated from others some of the time and 57% felt this way often.

Write-in comments about social support revealed strong support ("My spouse is 100% supportive" and "[My mom's] acceptance was all I needed to be able to stop caring about anyone else's opinion") to no support ("My family disowned me" and "My wife will leave me if I transition medically"). Others provided advice: "Don't waste good energy on trying to convince your family to love you. Let them come to it on their own, and they will." "Be patient & allow them time to grieve the old you before accepting the real you." Others were less optimistic about creating family bonds: "Make your own family," "It's not about you, let them be them," and "Get a cat, or two."

Higher family support was associated with lower anxiety levels. ($p<0.05$) However, there was no relationship between family support and depression risk or self-reported health status. There was no association between degree of friend support and anxiety, depression risk or self-reported health status.

Key Findings: Social Support

- Social support often came from a significant person or friends with lower levels of family support reported.
- Those with low family support were more likely to have higher anxiety levels.

WORRY ABOUT DISCRIMINATION

"It hurts more than you think."

Personal and social settings

Nearly all (98%) of respondents reported some degree of worry about discrimination in personal or social settings. The degree of worry reported varied across places and situations.

Discrimination Worry in Personal and Social Settings by Percentage of Respondents

	Very little/ Not at all	Somewhat	A lot
Public bathrooms/lockers (n=312)	17%	25%	59%
Family gatherings (313)	28%	34%	39%
Public places (n=312)	30%	44%	26%
Social gatherings (n=313)	36%	45%	19%
Neighborhood (n=314)	50%	39%	11%
Residence (n=314)	83%	11%	7%

Most respondents viewed their residencies as safe places. However, 18% worried to some degree about discrimination where they lived. In contrast, nearly 3 out of 4 worried to some degree about discrimination occurring at family gatherings. Most (84%) respondents reported some degree of worry with the use of public bathrooms and lockers. Discrimination worry in personal and social situations was significantly higher among those with annual household incomes less than $25,000. (p! 0.05) Among the 63 respondents who had children, 60% said they worried more about discrimination when they were with their children.

School/College settings

"School doesn't last forever, just get through it."

Almost 40% of respondents answered survey items pertaining to discrimination worry associated with current educational experiences. Since respondents were adults, many responses may relate to college or university experiences.

Over three-fourths worried about discrimination occurring in restrooms and locker rooms. About half worried about discrimination in classrooms or when interacting with teachers. School clubs and social events were associated with slightly less worry but still over 40% worried in these settings.

Worry About Discrimination in School Settings by Percentage of Respondents

	Very little/ Not at all	Somewhat	A lot
In restrooms/locker rooms (n=119)	22%	24%	54%
Dorms/student housing (114)	47%	29%	25%
With classmates outside of class (n=120)	43%	33%	24%
Interacting with teachers (n=118)	48%	31%	21%
School club meetings/social events (n=119)	57%	24%	19%
In classrooms/school facilities (n=123)	43%	41%	16%

Workplace settings

"Be very selective about who you share information with."

Nearly 80% of individuals answered survey items about discrimination worry within their current workplace. Since we requested that respondents only answer items related to work if they were currently working, the response rate may suggest that 20% were not working or had casual/contractual working arrangements. About 60% of individuals reported some degree of worry for each of the situations listed. Notably, 63% worried a lot about discrimination when interviewing for a new job.

Worry about Discrimination in Workplaces by Percent of Respondents

	Very little/ not at all	Somewhat	A lot
Interviewing for a new job (n=249)	10%	27%	63%
Using restrooms (n=246)	37%	26%	37%
Meeting with clients/customers (n=244)	31%	33%	36%
Meeting with manager (n=247)	39%	28%	34%
Meeting with co-workers (n=248)	34%	35%	31%
At work-related social events n=246)	34%	37%	29%

Healthcare settings

"Healthcare is awful."

Current healthcare professional services use varied among respondents with 86%, 79% and 61% reporting they received care from pharmacists, primary care providers (PCP), and dentists, respectively. Forty-one percent reported receiving transgender specialist services and 43% reported using therapist/counselor services. About one in three respondents received care from a psychiatrist.

Worry about discrimination was low, but not totally absent, for transgender specialists and therapists/counselors. In contrast, about 1 in 4 respondents reported a lot of worry about discrimination when seeing a PCP or psychiatrist, with over 50% reporting some degree of worry. The degree of worry was lower with pharmacists and dentists but about 40% worried about discrimination to some degree when seeing these professionals. Worry about discrimination was reported by both those who reported current service use and those who did not. Thus, worry may have been associated with current, past and/or anticipated experiences.

Worry about Discrimination from Healthcare Providers by Percentage of Respondents

	Very little/ not at all	Some	A lot
Psychiatrists (n=175)	40%	33%	27%
Primary care providers (n=289)	45%	31%	24%
Dentists (n=263)	54%	31%	14%
Pharmacists (n=288)	58%	29%	12%
Therapist/counselor for trans care (n=216)	82%	11%	7%
Transgender specialists (n=184)	88%	10%	2%

Respondent education level was not related to the degree of discrimination worry reported for any health professional. Compared to those with higher incomes, those with household incomes below $25,000 reported greater worry about discrimination with transgender specialists. (p! 0.05) No relationships was seen between income and discrimination worry with other professionals.

Relationships between discrimination worry and health were examined for the two settings that had a sufficient number of respondents: personal and social settings and healthcare settings. Higher discrimination worry in personal and social settings was significantly associated with higher anxiety levels (p! 0.05), and lower self-reported health status ($p<0.05$). No association was found between discrimination worry and depression risk.

Higher discrimination worry for PCPs, pharmacists, transgender specialists and therapists/counselors was associated with higher levels of anxiety. Lower self-reported health status was associated with greater discrimination worry with PCPs but had no relationship with other healthcare professionals. Greater discrimination worry with PCPs and pharmacists was found in individuals who reported "not at all" to the questionnaire item "My body and mind are in sync" but this relationship was not found with transgender specialists or therapists/counselors. Discrimination worry about any health professional was not related to depression risk.

Key Findings: Discrimination Worry

- Worry about discrimination was pervasive in all settings.
- Respondent worry about discrimination varied among settings suggesting that discrimination worry is influenced by multiple factors.
- Discrimination worry tended to be lower in situations of choice or in those known to be gender affirming.
- Discrimination worry in personal and social settings and with some healthcare professionals had significant associations with anxiety, self-reported health status and mind-body congruence.

SHARING OUR STRENGTH THROUGH COPING ACTIONS

"Life, as we would like it to be, is not an easy goal, but it is worth the effort."

The following sections describe actions taken to affirm one's authentic gender and to combat discrimination. These actions are grounded in the gender journey in which gender identity is recognized and affirmed as desired.

Gender journey events

"This is your journey and no one is allowed to say you are doing it wrong."

A gender journey is fluid, personal and comprised of self-defined gender identities, presentations and expressions. These experiences are uniquely tied to individuals - from their personal struggles to the celebration of actualizing and expressing their gender.

Most journeys began during childhood with early adulthood being a transformative time. Ninety-four percent of respondents indicated they were open to others about their authentic gender and 70% indicated that they had initiated medicines or medical interventions to affirm their gender. However, the remarkable diversity in gender journeys is evident in the broad age ranges reported for each event.

Median Age At Selected Gender Events

	Median age (years)	Age range (years)
Felt different than others in some way (n=303)	6	2-58
Identified as trans (n=305)	18	2-60
Open to others about authentic gender (n=297)	21	2-63
Started medical interventions to affirm gender (n=220)	26	11-64

*Responses such as "as long as I can remember" coded as age 2

Respondent comments about the gender journey strongly encouraged people to accept themselves. "You do you," "Gender is a social construct. Just be you," and "Just remember you know who you are" all echoed this theme. Some indicated that they did not desire medical affirmation while some others desired hormone therapy or surgery but lack the necessary resources to attain these interventions.

Because of data showing a generational shift towards greater societal acceptance of a broader definition of gender (GLAAD, 2017; James et al, 2016) we explored the gender journey experiences of different generations. Two factors were considered in performing this analysis: the age distribution of the sample and societal events that may have shifted public awareness of LGBT rights. We chose to divide the population into those younger than 45 years and those 45 years and older to allow adequate sample sizes for analysis. The younger population was born after the 1969 Stonewall Riots in New York City. This uprising against New York police actions spurred the development of the LGBT civil rights movement and the establishment of organized LGBT advocacy groups across the U.S.

Median Age (Age Range) At Gender Events for Respondents < 45 Years Old and 45 Years Old or Older

	Respondents < 45 years old		Respondents 45+ years old	
Felt different than others in some way	n=240	7 (2-20)	n=60	5 (2-58)
Identified oneself as trans	n=244	18 (2-40)	n=59	16 (2-60)
Open to others about authentic gender	n=236	20 (2-41)	n=58	45 (8-63)
Started medical interventions to affirm gender	n=164	24 (14-42)	n=53	48 (11-64)

Data interpretation requires consideration of the different sample sizes, but a notable difference in gender journey timelines was seen. While the age at which both age groups identified their authentic gender was similar, older respondents did not socially or medically affirm their gender until later in life.

No association was found between the degree of family or friend support and age at gender journey events. In addition, no association was found between social support measures and the time from authentic gender recognition to social or medical affirmation. These findings are similar to those of others who have reported an inconsistent effect of social support on gender affirmation (Bockting et al, 2013; McCann and Brown, 2017).

We had a sufficient sample to analyze the relationship between gender journey status and health for two groups: those who had only socially affirmed their gender and those who had both socially and medically affirmed their gender. Social affirmation was defined as being open to others about authentic gender and medical affirmation was defined as starting medical interventions to affirm gender. Comparisons found that both social and medical affirmation of gender was associated with lower anxiety, lower depression risk, and higher self-reported health status and higher mind-body congruence than social affirmation only.

Relationship Between Gender Journey and Health Status*

	Socially affirmed only (n=67)	Socially and medically affirmed (n=172**)
% With fair or poor health status	63%	44%
Depression risk	1.7	1.5
Anxiety	12.4	9.7
Mind-body congruence score	2.5	3.4

*All comparisons significant at the p<0.05 level
**171 responses for health status

Internal Coping Actions

"Have faith in yourself; have grace with yourself"

Internal coping relates to the support given to oneself to affirm gender identity and to deal with discrimination stress. Internal coping may foster resiliency and/or feed the internalization of discrimination. Internal coping was measured through the use of several scales.

Responses to the Self-Kindness Subscale (Neff, 20013) suggest that respondents did not consistently give themselves high internal support. Only 7% indicated they were almost always tolerant of their flaws and inadequacies and 10% said they were almost always kind to themselves when suffering.

Responses to the Self-Kindness Subscale of the Self-Compassion Scale

	Mean (!__SD)
I try to be understanding and patient towards myself (n=316)	3.3 (1.2)
I'm kind to myself when I'm experiencing suffering (n=316)	2.7 (1.2)
When I'm going through a very hard time, I give myself the care and tenderness I need (n=316)	2.6 (1.2)
I'm tolerant of my own flaws and inadequacies (n=316)	2.6 (1.2)
I try to be loving towards myself when I'm feeling emotional (n=314)	2.8 (1.3)

1=almost never; 5=almost always

However, many respondents gave advice that encouraged self-kindness such as "Be kind to yourself, this does get better," "You are your advocate," and "Make it a priority to love yourself." One stated, "Be your own best friend, not your bully."

Responses to a modified Heightened Vigilance Scale (Williams, 1997) revealed that 26% to 46% of respondents reported taking daily actions to brace for discrimination. In response to an additional question, 27% indicated they daily planned their day around the availability of safe bathroom facilities and an additional 18% indicated this was done at least once a week.

Frequency of Heightened Vigilance Actions Taken by Percentage of Respondents

	Almost every day	At least once a week	A few times a month	Few times a year	Less than once a year/ never
I try to prepare for possible insults from other people before leaving home. (n=304)	26%	22%	17%	16%	19%
I feel that I always have to be very careful about my appearance to get good service or avoid being harassed.(n=314)	39%	22%	16%	10%	14%
I carefully watch what I say and how I say it. (n=313)	44%	23%	16%	9%	7%
I try to avoid certain social situations and places. (n=314)	46%	21%	16%	10%	7%

Heightened Vigilance Scale (Williams, 1997)

Responses to a modified version of the McNeilly Perceived Racism Scale (McNeilly et al, 1996) showed that active coping actions tended to be used by most respondents with 88% talking to someone about how they felt. Only 34% internalized discrimination by thinking they brought discrimination upon themselves, however, 84% accepted discrimination as a fact of life to some degree.

Frequency of coping with Discrimination Responses By Percentage of Respondents*

	Not at all	Some	A lot
Active coping actions			
Talked to someone about how you were feeling (n=312)	12%	48%	40%
Worked harder to prove them wrong (n=311)	22%	42%	36%
Expressed anger (n=311)	21%	46%	33%
Tried to do something about it (n=312)	24%	55%	21%
Passive coping actions			
Accepted it as a fact of life (n=311)	13%	47%	37%
Realized that you brought it on yourself (n=311)	66%	23%	11%
Prayed about the situation (n=310)	75%	19%	7%

*Modified McNeilly Perceived Racism Scale (McNeilly et al, 1996)

Everyday coping actions

"We are all fighting it together in our own ways."

Survey responses regarding the use and effectiveness of a selected list of coping actions created by community members are shown below. Variance was seen between the percentage of respondents using a selected action and its perceived effectiveness. For example, "Spending time with partner/spouse/children" was used by 79% and rated as highly effective by 57% while "Napping/sleeping" was used by 96% of respondents but only rated as highly effective by 35%. "Smoking, drinking alcohol or taking drugs" was used by 73% but rated as effective by 53%. Twenty-three percent of respondents rated both exercise and eating comfort/junk food as highly effective, however, eating comfort/junk food was used by 11% more respondents than exercise. Some results were surprising (e.g., 68% of respondents kept a diary but only 14% rated its effectiveness as "a lot").

Reported Effectiveness of Coping Actions by Percentage of Respondents

	% Using action	Effectiveness		
		Very little/ Not at all	Some	A lot
Talking or going out with friends (n=312)	96%	20%	42%	38%
Avoiding social events (n=312)	96%	35%	37%	27%
Eating comfort food/junk food (n=311)	96%	39%	38%	23%
Napping/sleeping (n=312)	94%	31%	34%	35%
Binge watching TV/movies (n=311)	91%	38%	30%	32%
Avoiding public bathrooms (n=310)	90%	42%	29%	29%
Exercising (n=310)	85%	44%	33%	23%
Participating to fight discrimination (n=309)	80%	37%	34%	30%
Spending time with my partner/spouse/ children (n=299)	79%	18%	24%	57%
Smoking, drinking alcohol or taking drugs (n=307)	73%	47%	31%	22%
Chatting on-line with trans-affirming groups (n=310)	70%	26%	41%	33%
Praying/meditating/practicing mindfulness (n=309)	68%	55%	26%	19%
Keeping a diary (n=308)	68%	60%	26%	14%
Attending support groups (n=311)	66%	36%	40%	24%
Working longer hours to avoid other situations (n=307)	64%	49%	32%	19%
Taking medications prescribed for stress (n=308)	63%	45%	21%	35%
Taking herbal or natural products (n=306)	54%	56%	27%	17%
Being part of a faith-based group (n=309)	44%	74%	11%	15%

*Percentages calculated for effectiveness based on number of users

Respondents were asked to share the one coping action that worked best for them. Many mentioned interactions with others ("talking with people who support me," "venting online," and "support groups"). Some mentioned walking, listening to music, playing video games or taking drugs/marijuana. A few commented that, "none of them work."

Situational Coping Actions

In addition to looking at general coping actions, we asked about coping actions taken in specific situations: school/college, the workplace and in healthcare settings. This provided more detailed information that could support programmatic changes in these environments.

School/College

"Reach out and find help."

Passive actions were taken by 81% to 91% of students. Avoiding interactions with other students was tried by 91% of students as a means to cope with discrimination with 70% indicating this action was effective to some degree. Non-disclosure of authentic gender was tried by 89% and reported to be effective by 78%. In contrast the most effective positive action, choosing a gender-affirming place to live, was only tried by 53% of students About 70% of students tried to increase awareness about trans issues, but 43% reported this to be ineffective in coping with discrimination. Talking with administrators or teachers was tried by 51% and 58% of students, respectively, and generally viewed as ineffective.

Effectiveness of Selected School Coping Actions by Percentage of Respondents

	% Tried action	Effectiveness		
		Not at all/very little	Some	A lot
Avoiding interactions with other students (n=99)	91%	30%	44%	26%
Not disclosing I am trans/gender nonconforming (n=100)	89%	21%	30%	48%
Avoiding bathrooms/locker rooms (n=100)	86%	35%	23%	42%
Not participating in school social events (n=100)	81%	37%	33%	30%
Raising awareness about trans/gender variant issues (n=100)	72%	43%	35%	22%
Avoiding team sports (n=100)	59%	36%	20%	44%
Talking with my teachers (n=102)	58%	63%	25%	12%
Choosing a gender-affirming place to live (n=101)	53%	25%	17%	58%
Talking with school administrator (n=103)	51%	56%	31%	13%

Respondent advice about coping at school evolved around two main themes: finding trans friends and allies and knowing legal rights. "Stick close to your friends and always know where the safe classrooms and teachers are" echoed common advice as well as "Create a support network" and "Find someone that makes you feel safe." One urged others to "STAND UP for yourself." One respondent wrote, "Be angry, be pissed, this is survival, and they aren't rooting for you kiddo."

The Workplace

"Always have someone you can talk to when work gets stressful."

The most effective method of coping with workplace discrimination was confiding in persons outside of the workplace; 82% reported this to be effective to some degree. Many respondents coped by using passive actions. Over 90% avoided talking about personal life at work but only 76% reported this action as effective. Not disclosing authentic gender was tried by 81% and found to be effective by 71%. Just focusing on work and trying to block out everything else was used by 63% of respondents and reported to be effective by 78%. Eighty percent sought advice or confided in a co-worker with a reported effectiveness of 57%. The least effective actions were working part-time by choice, seeking help from a human resources department, and seeking advice or confiding in a manager.

Effectiveness Of Selected Workplace Coping Actions by Percentage of Respondents

	% Tried action	Effectiveness		
		Not at all/very little	Some	A lot
Avoiding talking about personal life while at work (n=232)	94%	34%	30%	46%
Interacting with others as little as possible while at work (n=231)	86%	43%	33%	24%
Avoiding social situations with co-workers (n=230)	82%	37%	31%	32%
Not disclosing gender status (n=227)	81%	28%	23%	48%
Seeking advice or confiding in one or more co-workers. (n=231)	80%	43%	40%	17%
Seeking advice or confiding in my partner/spouse/friends (n=213)	70%	17%	33%	49%
Trying to raise awareness (n=232)	70%	42%	36%	23%
Seeking advice or confiding in my manager (n=231)	69%	49%	25%	16%
Just focusing on my work and trying to block out everything else (n=231)	63%	21%	32%	46%
Avoiding interviews for new jobs/positions (n=226)	61%	44%	23%	33%
Seeking help from human resources department/representative (n=230)	57%	60%	28%	13%
Working part-time by choice (n=228)	42%	60%	20%	20%

Written comments advised caution, building support and knowing legal rights. One advised, "Remember that your co-workers and the bosses are not your buddies." Some suggested finding a supportive trans or cis co-worker, "Scope out allies" and "Make friends with supportive people," while others recommended distancing one-self from co-workers, "Don't disclose" and "Keep to yourself." Some emphasized the need to talk to managers and human resource representatives to get their support for actions such as medical affirmation, "Get bosses and HR on board first." A number indicated that finding a workplace that accepted one's authentic gender was the best way to avoid discrimination. The tension between disclosure and discrimination was seen in the comment: "Be whoever you have to be to stay employed."

Healthcare settings

"Safety is your first priority."

Within healthcare settings, taking active coping actions was reported as effective. Choosing gender-affirming providers was viewed as effective by 92% of respondents and 80% reported seeking

advice from gender-affirming organizations as effective. While these actions were viewed as effective, only 75% and 66% of respondents, respectively, reported trying these actions.

Reliance on others was seen via the two-thirds of respondents who had someone accompany them on medical visits or sought advice from family, friends or gender-affirming organizations. Educating providers about transgender health issues was reported by about 70% of respondents, however, 60% indicated this action was not always effective.

Effectiveness of Selected Healthcare Coping Actions by Percentage of Respondents*

	% tried action	Effectiveness		
		Not at all/very little	Somewhat	A lot
Seeking healthcare only when absolutely necessary (n=308)	91%	26%	30%	45%
Not disclosing that I am trans/gender variant (n=307)	80%	41%	25%	34%
Choosing providers known to be trans/gender affirming (n=307)	75%	8%	25%	67%
Educating providers about trans health needs (n=306)	71%	41%	37%	23%
Having someone accompany me to my visits (n=306)	67%	46%	28%	25%
Following health/medication advice from friends & others (n=306)	67%	52%	33%	16%
Seeking advice from gender-affirming groups or associations (n=307)	66%	21%	43%	36%
Using natural products to avoid asking for a prescription (n=306)	46%	60%	20%	20%
Seeking care from holistic healers rather than a physician (n=305)	32%	66%	21%	14%
Getting prescriptions from friends or others at parties (n=304)	20%	79%	17%	5%
Getting prescriptions from illegal online pharmacies (n=306)	19%	71%	19%	9%

*Excludes respondents that never tried coping strategy

Passive actions were also commonly taken. Seeking healthcare only when absolutely necessary was used by 91% to avoid discrimination and seen as effective by 75%. Not disclosing authentic gender was reported by 80% and reported to be effective by 59%. Avoiding healthcare discrimination by seeking care outside of the formal medical system was reported by 19% to 46% of respondents with these actions generally reported as being ineffective.

Since healthcare avoidance can negatively impact health (Deutsch, 2016; Institute of Medicine, 2011; Redfern et al, 2016) respondents were asked how often they avoided care for selected reasons. The most common reasons for avoidance related to dysphoria (65%), medical costs (59%), lack of legal documents that indicate authentic gender identity (50%) and inability to find gender-affirming medical professionals (50%). Twenty-three percent and 13% of respondents avoided care because of past embarrassment at medical offices and pharmacies, respectively.

Advice for coping with discrimination indicated the need to find gender-affirming professionals, “Get referrals from the community!” “Find a trans friendly doctor,” and “Seek information from other trans people.” Some gave advice about what to do during a visit: “NEVER let someone touch you against your will,” “Be honest when you feel safe,” “If they treat you poorly, leave,” “Be direct, point out what someone is doing that is disrespectful/incorrect,” and “Be informed of your needs, and express them.”

Further analysis found that higher heightened vigilance scale scores were associated with more severe levels of anxiety (p±0.05) and higher depression risk (p±0.05) but had no relationship to self-reported health status. Having tried more passive coping actions than active actions was related to a higher degree of anxiety (p±0.05) and depression risk (p±0.05) and lower self-reported health status (p±0.05). No relationship was seen between the use of active coping actions and health measures.

Key Findings: Coping

- Gender journeys vary greatly; appear to be influenced by societal attitudes, and associated with depression, anxiety and self-reported health.
- Stigma was internalized by some; most prepared for discrimination on a routine basis.
- A mix of both active and passive/avoidant coping actions were used, deemed to be effective and recommended by respondents.
- Talking with or spending time with friends and supportive family members were effective ways of coping.
- The majority rated talking or seeking help from figures of authority in schools and workplaces as helping very little or not at all.
- Choosing gender-affirming providers was a common action and viewed as effective. However, avoiding care and nondisclosure of authentic gender were also used by the majority and viewed as effective.
- A preponderance of passive coping actions was associated with more severe anxiety, more depression, lower self-reported health status and more loneliness.

DISCUSSION

The findings paint a picture of a population in distress. Low household income levels, escalated anxiety, significant depression risk, and low self-reported health status were common. Perhaps most notable was the low household incomes given the educational attainment reported. Three out of four indicated difficulties meeting their financial needs. Our results were comparable to the 2014 BRFSS Transgender Group; 41% of BFRSS respondents had incomes below $25,000 and 27% reported incomes between $25,000 - $49,999 (Streed et al, 2017). The results are also similar to the Virginia Health Survey (Bradford et al, 2013) that reported 38% of trans respondents had an annual income of less than $16,999. The survey response rate to work-related questions suggested that only 80% of respondents may have been currently employed. Such an income-education imbalance has been found by others (James et al, 2016) and is suggested to reflect discrimination against trans individuals in hiring and other employment practices. Indeed, worry about work discrimination was reported by two-thirds of our working respondents. Worry about job interviews was particularly high signaling that hiring practices may be a major barrier to employment and career advancement.

Worry about discrimination was pervasive in all settings studied. The high degree of worry about discrimination combined with frequent coping through non-disclosure indicates that individuals may often be trapped within situations that are threatening to their gender identity. That such worry occurred within

an environment of strong, creative and effective national and local trans advocacy and outreach efforts emphasizes that the road to equality and fairness is a steep climb. However, fewer respondents reported a high degree of worry about discrimination within settings that are likely to be chosen, such as residences. This mix of high and low discrimination worry among settings indicates the challenges faced by many along with the acknowledgement that avenues to a higher quality of life exist.

The similarity between discrimination worry in school/college and the workplace is notable since education is often the doorway to employment. Discrimination worry associated with classmates echoed that of worry associated with co-workers. The relatively low effectiveness of talking to teachers to cope with discrimination aligned with the low effectiveness of confiding in managers. Efforts to raise awareness about transgender issues and rights among students on an institutional level may have a positive effect on creating more accepting workplaces. Resiliency gained in school may flow over to resiliency at work. In addition, interventions to overcome hiring barriers, and initiatives to build professional networks are needed. Certainly teachers, school administrators, employers, and co-workers need more education about transgender issues and legal protections. In addition, stronger policies and procedures for honoring gender identity in schools and workplaces must be present.

Actions to live in harmony with one's authentic gender identity and cope with discrimination begins with the gender journey. The journey begins early in life and thus gender identity should be firmly planted in childhood development, elementary education, and pediatric healthcare. Compared to the U.S. Transgender Survey results, (James et al, 2016) our respondents were older when they realized their authentic gender and socially affirmed their gender. Our results, however, were similar to the Virginia Health Study (Bradford et al, 2013) of 387 trans individuals where individuals were, on average, 29 years of age when they first sought medical therapy to affirm their gender. The data highlighted the unique journeys of individuals and the need to respect self-determination. It also gave a glimpse into the social support, anxiety, depression and dysphoria that is associated the journey. Our data suggested a generational shift in gender journeys with social openness occurring sooner in life for those who are younger. The strength of this finding, however, was limited by our sample size.

Internalization of discrimination was seen in the low degree of self-kindness expressed and in those who believed they brought discrimination upon themselves. We saw that heightened vigilance occurred. Preparation for discriminatory events is consistent with the Minority Stress Model (Seelman et al, 2017) that states minority individuals routinely prepare for discrimination with this leading to increased stress that is associated with poor health outcomes. Past research has focused on the effects of heightened vigilance and health (Clark and Gotchett, 2006). Himmelstein and associates (2015) found that heightened vigilance mediated the effect of discrimination on stress. While comparisons among minority groups are fraught with inadequacies, our results mirrored those of others that found that individuals often responded to unfair treatment by talking to someone, taking action (Krieger, 1990) and working harder to prove them wrong (Clark, 2000). However, our respondents were more likely to accept discrimination as a fact of life and prayer was used less compared to other populations (Clark, 2000; Moody-Ayers, 2005). Thus, finding ways to strengthen coping while decreasing internalization of discrimination is needed to prevent or negate negative health effects.

Respondents used both active and passive actions to cope with discrimination, felt both types of responses were effective to some degree, and gave advice to others that promoted both. We found that

using more passive/avoidant actions than active actions had a negative effect on health. This is not surprising given the general view that actions related to social isolation are harmful to one's well being. Therefore, sharing of active coping strategies and experiences that promote resiliency among peers may be useful. Hearing the benefits of positive, effective actions and the pitfalls of harmful or ineffective coping actions could be helpful to those who are struggling to gain strength. The use of ineffective coping actions also emphasizes the need for those involved in providing transgender care to assess coping strategies used by clients/patients and guide and support them in adopting healthy, effective actions.

The data brought to light interventions that deserve a second look to see if their effectiveness could be improved. For example, support groups were not viewed to be as effective as we would have thought. Keeping a diary of one's experiences and thoughts is a common recommendation for dealing with stress but the reported effectiveness of this action was surprisingly low. These findings emphasized the need to revisit intervention processes and tailor coping actions to individual needs and personal preferences.

Respondent comments suggested that healthcare experiences displayed a lack of caring. Health professionals often have little formal education and experience in transgender healthcare. (Cruz, 2014; Daniel and Butkus, 2015) To improve trans individuals' access to care providers must be knowledgeable about transgender health issues. Incorporation of transgender health into professional curriculums, adoption of clinical practice guidelines such as those put forth by the World Professional Association for Transgender Health (WPATH), and participation in continuing education programs such as those offered by the National Center for Transgender Equality (http://www.transequality.org) may serve as a foundation for such learning. Health professional practices must incorporate systems of care changes that honor chosen names and pronouns and document authentic gender within their medical records. Practice changes need to address multiple interlocking issues such as personal biases, professional norms, group dynamics, and technological support.

Worry about discrimination within healthcare settings was associated with delays in seeking health. Such worry was compounded by the lack of legal documents that state authentic gender, body dysphoria associated with physical exams, and inability to find gender-affirming professionals. High costs related to medical care and prescription drugs were also mentioned as barriers to care; lack of health insurance often plagues those in the trans community (Cruz, 2014; James et al, 2016; Macapagal et al, 2016; Meyer et al, 2017; Sanchez, 2009).

That discrimination worry was also accompanied by a high rate of non-disclosure of authentic gender identity is not surprising, but concerning. While viewed as effective by 59% of respondents, non-disclosure hinders providers' abilities to adequately assess and detect physical and mental health concerns. In addition, professionals may be less likely to address social, economic and legal issues that influence health and patients' ability to follow medical advice and not make appropriate referrals for specialty care.

Creating affirming and culturally competent environments in all settings is paramount. While this one-time survey could not determine causality, it certainly saw that discrimination worry and heightened vigilance was associated with higher anxiety and greater risk of depression. In contrast, higher family support was associated with lower levels of anxiety. Medical affirmation of gender identity was associated with lower anxiety levels, less depression risk, higher self-reported health status and greater mind-body

congruence. The use of more passive coping actions compared to the number of active actions tried was associated with more severe anxiety, greater depression risk and lower self-reported health status.

Our findings reinforce that building resiliency within the trans community must be done in concert with external advocacy efforts. Not only must gender-affirming policies be adopted but those schools/colleges, workplaces, healthcare providers, and social settings that are gender affirming need to be known to the community if discrimination worry is to decrease. Our findings of high levels of hypervigilance and anxiety, worry about discrimination, and use of negative coping actions describe a population that is likely to be reluctant to enter settings that are not known to be gender-affirming. Thus, entities should be publically open about their willingness to provide gender-affirming care. “No wrong door” navigation processes that guide trans individuals to gender-affirming settings and services need to be expanded to decrease anxiety associated with discrimination worry and heightened vigilance. Referral pathways among health professionals and other services either through centers of excellence, advocacy groups or informal networks can help guide trans patients to settings where they can anticipate respect.

It should also be recognized that some respondents found existing in a cisgender-dominated world unbearable. They advocated for gender non-disclosure and avoidance of interactions with cisgender individuals. Many expressed that their greatest support came from within the trans community. For these individuals, building self-reliance and positive support systems within the trans community is the desired goal. Growing trans-affirming spaces through initiatives that create social support, expand career networking, and address physical and mental health needs is important.

The *Finding Our Strength Survey* was a trans community-led research endeavor that blended the knowledge and experience of community members with the expertise of academic researchers. This partnership was valuable in creating a survey that produced useful information and provided results that were meaningful to community members, health professionals, researchers and others. This report is a glance into our survey respondents’ lives, their actions and viewpoints in navigating a largely trans discriminative society. The report findings are not representative of all who identify as trans or of the experiences and viewpoints of any particular individual. Yet, the findings do provide insight into respondents’ daily burden of navigating through ever-present obstacles borne of prejudice and discrimination. Our results provide insight into their internal resiliency. How did they cope? What coping strategies worked well? Which didn’t?

Our data raised many questions and highlighted areas in need of future research. Our community-driven model of research gave insight into how to meld community needs, opinions, and talents into a research-focused endeavor. Community feedback about these results will guide their interpretation and resultant next steps.

Study Limitations

Survey limitations may influence the degree to which results apply to the broader trans population. This survey had a number of limitations. Use of a snowball recruitment method may have preferentially drawn those with stronger support networks and more access to gender-affirming providers. We did not adequately capture the perceptions, experiences and advice of older individuals, persons of color and those living in rural areas. This limitation is common among trans survey research (James et al, 2016; Seelman et al, 2017). However, the unique experiences of these groups and the loss of their

contributions make this limitation a key concern. The high percentage of respondents who were socially open about their authentic gender did not allow us to compare results between those who were open socially and those who were not. A one-time survey design did not allow directionality for variable relationships to be determined. Scale modification may have altered the psychometric properties of validated scales. The online survey process created barriers to those without Internet access. Some may not have participated due to potential fear or shame of identifying as transgender/gender non-conforming even though data were collected anonymously. Local environments and other factors not considered within the survey may have influenced responses. The validity of self-administered survey data is always fallible to question interpretation.

DEDICATION TO ACTION

Transcend stands ready to work with the trans community, its allies and potential allies to create positive change that can lower worry about discrimination and promote healthy coping actions. Building on *Finding our Strength* findings, we offer recommendations for reaching these goals. We invite you to provide feedback on our recommendations, refine and improve our path forward, and open opportunities for collaborative work that will strengthen the trans community.

Our Recommendations

- Increased support and opportunities for trans-led initiatives and greater investment in developing leadership skills within trans community members should be embraced.
- Collaborative efforts to educate the public, families, educators, employers, health professionals and others about trans experiences should be strengthened and creative, effective ways to stimulate conversations among all parties sought.
- Extensive promotion of gender affirming schools/colleges, workplaces, healthcare providers and other settings and services should occur in order to reduce discrimination worry.
- Increased awareness and understanding about the gender journey should be sought. Initiatives to enhance respect and support for self-determination need to be widely offered.
- Fostering gender-affirming environments and opportunities for skill-development, career advancement and networking should be pursued.
- New and expanded efforts to encourage a healthy balance of active and passive coping skills should be promoted. Greater, more diverse opportunities to increase social support and decrease social isolation should become available within the community.
- Enhanced strategies and techniques to improve communication between transgender and cisgender individuals should be explored.
- Continued research into trans issues should focus on expanding evidence-based initiatives to improve quality of life. Strategic efforts to fully engage all individuals particularly persons of color and older individuals in such research should be more widely employed.

REFERENCES

Albuquerue GA, de Lima Garcia C, da Silva Quirino G et al. Access to health services by lesbian, gay, bisexual, and transgender person: systematic literature review. *Human Rights*. 2016;16:2. doi 10.1186/s12914-015-0072-9.

American Community Survey 2011-2015. *Median Household Income in the United States*. U.S. Census Bureau, U.S. Department of Commerce. Economics and Statistics Administration. U.S. Census Bureau.

Bauer GR, Scheim AI, Deutsch MB, Massarella C. Reported Emergency Department Avoidance, Use, and Experiences of Transgender Persons in Ontario, Canada: Results From a Respondent-Driven Sampling Survey. *Ann Emerg Med*. 2014;63:713-720

Bauer GR, Scheim AI, Pyne J, Travers R, Hammond R. Intervenable factors associated with suicide risk in transgender persons: a respondent driven sampling study in Ontario, Canada. *BMC Public Health*. 2015;15:525. doi: 10.1186/s12889-015-1867-2.

Beemyn BG. Making Campuses More Inclusive of Transgender Students, *J Gay & Lesbian Issues Educ*. 2005;3:77-87. doi: 10.1300/ J367v03n01_08.

Blosnich JR, Gordon AJ, Fine MJ. Associations of sexual and gender minority status with health indicators, health risk factors, and social stressors in a national sample of young adults with military experience. *Annuals of Epidemiology* 2015;25:661-667. doi.org/10.1016/j.annepidem.2015.06.001.

Bockting WO, Miner MH, Swinburne RE, Hamilton A, Coleman E. Stigma, mental health, and resilience in an online sample of the US transgender population. *Am J Public Health*. 2013;103:943–951. doi:10.2105/AJPH.2013.301241.

Bradford J, Reisner SL, Honnold JA, Xavier J. Experiences of transgender-related discrimination and implications for health: results from the Virginia Transgender Health Initiative Study. *Am J Public Health*. 2013;103:1820-1829. Doi 10.2105/AJPH.2012.300796.

Budge SL and Adelson JL. Anxiety and depression in transgender individuals: the roles of transition status, loss, social support, and coping. *J Counseling and Clinc Psychology*. 1013;82:545-557. doi: 10.1037/a0031774.

Callen-Lorde Community Health Center. *Protocols for the Provision of Hormone Therapy.* Available at http://callen-lorde.org/transhealth/ accessed March, 2017.

Clark R. Perceptions of interethnic group racism predict increased vascular reactivity to a laboratory challenge in college women. *Ann Behav Med.* 2000;22:214-222.

Clark R and Gotchett P. Interactive effects of perceived racism and coping responses predict a school-based assessment of blood pressure in black youth. *Ann Behav Med*. 2006;32:1-9.

Cocohoba J. Pharmacists caring for transgender persons. *Am J Health-Syst Pharm*. 2017;74:170-4. Doi 10.2146/ajhp 151053.

Coleman E, Bockting W, Bother M, et al. Standards of Care for the Health of Transsexual, Transgender, and Gender-Nonconforming People, Version 7. *International Journal of Transgenderism*. 2011;13:165–232 doi: 10.1080/15532739.2011.700873.

Costa R and Colizzi M. The effect of cross-sex hormonal treatment on gender dysphoria individuals' mental health: a systematic review. *Neuropsychiatric Disease and Treatment*. 2016;12:1953-1966. doi.org/10.2147/NDT.595310.

Cruz TM. Assessing access to care for transgender and gender nonconforming people: A consideration of diversity in combating discrimination. *Soc Sci Med.* 2014;110:65-73. doi.org/10.1016.1016.

Daniel H and Butkus R. Lesbian, Gay, Bisexual, and transgender health disparities: Executive summary of a policy position paper from the American College of Physicians. *Ann Intern Med*. 2015;163:135-137. doi:10.7326/M14-2482.

Deutsch MB Ed. *Guidelines for the Primary and Gender-Affirming Care of Transgender and Gender Nonbinary People*. Center of Excellence for Transgender Health. University of California, San Francisco. 2016.

Eliason, MJ, DeJoseph J, Dibble S, Deevey, S, Chinn P. Lesbian, gay, bisexual, transgender, and queer/questioning nurses' experiences in the workplace. *J Prof Nurs.* 27:237–244, 2011.

Ewton TA and Lingas EO. Pilot Survey of Physician Assistants Regarding Lesbian, Gay, Bisexual, and Transgender Providers Suggests Role for Workplace Nondiscrimination Policies. *LGBT Health*. 2015;2:357-361.doi: 10.1089/lgbt.2014.0057.

Flores AR, Brown TNT, Herman JL. *Race And Ethnicity Of Adults Who Identify As Transgender In The United States.* The Williams Institute. 2016.

GLAAD. *Accelerating Acceptance 2017*. Available at https://www.glaad.org/files/aa/2017_GLAAD_Accelerating_Acceptance.pdf, Accessed October 2017.

Glynn TR, Gamarel KE, Kahler CW et al. The role of gender affirmation in psychological well-being among transgender women. *Psychology of Sexual Orientation and Gender Diversity*. 2016;3:336-344. doi.org/10.1037/sgd0000171.

Gorin-Lazard A, Baumstarck K, Boyer L et al. Is hormonal therapy associated with better quality of life in transsexuals? A cross-sectional study. *J Sex Med.* 2012;9:531–541. doi:10.1111/j.1743-6109.2011.02564.x.

Graham LF, Crissman HP, Tocco J, Hughes LA, Snow RC, Padilla MB. Interpersonal relationships and social support in transitioning narratives of black transgender women in Detroit. *International Journal of Transgenderism.* 2014;15:100-113, doi: 10.1080/15532739.2014.937042.

Grant, JM, Mottet LA, Tanis J, Harrison J, Herman JL, Keisling M. *Injustice at Every Turn: A Report of the National Transgender Discrimination Survey.* Washington: National Center for Transgender Equality and National Gay and Lesbian Task Force, 2011.

Himmelstein MS, Young DM, Sanchez DT, Jackson JS. Vigilance in the discrimination-stress model for Black Americans. *Psychol Health*. 2015;30:253–267. doi:10.1080/08870446.2014.966104.

Hoffman B. An Overview of Depression among Transgender Women *Depression Research and Treatment*. 2014; 2014:1-9. http://dx.doi.org/10.1155/2014/394283

Howden LM, Meyer JA. *Age and sex composition: 2010*. 2010 Census Briefs. U.S. Department of Commerce. Economics and Statistics Administration. U.S. Census Bureau.

Hughes ME, Waite LJ, Hawkley LC, Cacioppo JT. A short scale for measuring loneliness in large surveys: Results from two population-based studies. *Research on Aging*. 2004;26:655-672 doi: 10.1177/0164027504268574.

Human Rights Campaign Foundation. *Providing LGBTQ-Inclusive care and services at your pharmacy: a resource guide for pharmacists and pharmacy staff.* June 2016. Available at https://www.hrc.org/resources/providing-lgbtq-inclusive-care-and-services-at-your-pharmacy. Accessed September 2017.

Humes KR, Jones NA, Ramirez RR. *Overview of race and Hispanic origin: 2010.* 2010 Census Briefs. U.S. Department of Commerce. Economics and Statistics Administration. U.S. Census Bureau.

IOM (Institute of Medicine). 2011. *The Health of Lesbian, Gay, Bisexual, and Transgender People: Building a Foundation for Better Understanding.* Washington, DC: The National Academies Press.

James, S. E., Herman, J. L., Rankin, S., Keisling, M., Mottet, L., & Anafi, M. (2016). *The Report of the 2015 U.S. Transgender Survey*. Washington, DC: National Center for Transgender Equality.

Jefferson K, Neilands TB, Sevelius J. Transgender women of color: discrimination and depression symptoms. *Ethn Inequal Health Soc Care*. 2013; 6(4): 121–136. doi:10.1108/EIHSC-08-2013-0013.

Johnston CD, Shearer LS. Internal Medicine Resident Attitudes, Prior Education, Comfort, and Knowledge Regarding Delivering Comprehensive Primary Care to Transgender Patients. Transgender Health. 2017;2.1:91-95. doi: 10.1089/trgh.2017. 0007.

Kareff S and Ogden M. Race, Discrimination, and Coping Methods in North America. *GUJHS.* 2013;7:10-25.

Kessler RC, Chiu WT, Demler O, Walters EE. Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). *Archives of General Psychiatry,* 2005 Jun;62(6):617-27.

Kessler RC, Chiu WT, Demler O, Walters EE. Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). *Archives of General Psyc*hiatry. 2005;62:617-27.

Khalili J, Leung LB, Diamant AL. Finding the Perfect Doctor: Identifying Lesbian, Gay, Bisexual, and Transgender–Competent Physicians. *Am J Public Health.* 2015;105:1114–1119. doi:10.2105/AJPH.2014.302448.

Koken JA, Bimbi DS, Parsons JT. Experiences of Familial Acceptance–Rejection Among Transwomen of Color. *J of Fam Psych*. 2009; 23(6)853-860. doi: 10.1037/a0017198.

Kosciw JG., Greytak EA, Giga NM, Villenas C, Danischewski DJ. (2016). *The 2015 National School Climate Survey: The experiences of lesbian, gay, bisexual, transgender, and queer youth in our nation's schools*. New York: GLSEN.

Krieger N. Racial and gender discrimination: risk factors for high blood pressure? *Sot Sri Med.* 1990:30:273-1281.

Law CL, Martinez LR, Ruggs EN, Hebl MR, Akers E. Trans-parency in the workplace: how the experiences of transsexual employees can be improved. *Journal of Vocational Behavior*. 2011;79:710-723. Doi:10.1016/j.jvb.2011.03.018.

Lerner JE, Robels G. Perceived barriers and facilitators to health care utilization in the United States for transgender people: a review of recent literature. *JHCPU*. 2017;28:127-152.

Macapagal K, Bhatia R, Greene GJ. Differences in healthcare access, use and experiences within a community sample of racially diverse lesbian, gay, bisexual, transgender, and questioning emerging adults. *LGBT Health*. 2016;3:434-442. doi:10.1089/lgbt.2015.0124.

Maurer DM. Screening for Depression. *Am Fam Physician.* 2012;85:139-144.

McCann E, Brown M. Discrimination and resilience and the needs of people who identify as Transgender: A narrative review of quantitative research studies. *J Clin Nurs*. 2017;00:1-14. https://doi.org/10.1111/jocn.13913.

McGee DL, Liao Y, Cao G, Cooper RS. Self-reported Health Status and Mortality in a Multiethnic US Cohort. *Am J Epidemiol.* 1999;149:41-6.

McNeilly MD, Anderson NB, Armstead CA, et al. The perceived racism scale: a multidimensional assessment of the experience of white racism among African Americans. *Ethn Dis.*1996;6:154-66.

McPhail D, Roundtree JM, Whetter I. Addressing gaps in physician knowledge regarding transgender health and healthcare through medical education. *Can Med Educ J.* 2016 Oct; 7(2): e70–e78.

Meyer HH, Brown TNT, Herman JL, Reisner SL, Bockting WO. Demographic characteristics and health status of transgender adults in select US regions: Behavioral Risk Factor Surveillance System, 2014. *Am J Public Health*. 2017;107:582-289. doi:10.2105/AJHP.2016.303648.

Moody-Ayers SY, Stewart AL, Covinsky KE, Inouye SK. Prevalence and correlates of perceived societal racism in older African-American adults with type 2 diabetes mellitus. *J Am Geriatr Soc*. 2005;52:2202-2208.

National Center for Health Statistics. *Health, United States, 2016: With Chartbook on Long-term Trends in Health*. Hyattsville, MD. 2017.

Neff KD. The development and validation of a scale to measure self-compassion. *Self and Identity.* 2003;2:223-250.

Newsome C, Colip L, Sharon N. Conklin J. Incorporating a pharmacist into an interprofessional team providing transgender care under a medical home model. *Am J Health-Syst Pharm*. 2017; 74:135-9

Oyserman D, Uskul AK, Yoder N, Nesse RM, Williams DR. Unfair treatment and self-regulatory focus. *Journal of Experimental Social Psychology.* 2007;43: 505–512.

Pratt LA, Brody DJ. *Depression in the U.S. household population, 2009–2012.* NCHS data brief, no 172. Hyattsville, MD: National Center for Health Statistics. 2014.

Redfern JS, Barnes A, Chang. Psychosocial, HIV, and healthcare management issues impact transgender individuals. *Am J Orthopsychiatry*. 2016;86:366-372. doi.org/10.1037/ort0000190.

Reisner SL, White Hughto JM, Dunham EE, Heflin KJ, Blue Glass Begenyi J, Coffey-Esquivel J, Cahill S. Legal Protections in Public Accommodations Settings: A Critical Public Health Issue for Transgender and Gender-Nonconforming People. ***Milbank Q*. 2015:93(3):484–515. doi:10.1111/1468-0009.12127.**

Sanchez NF. Sanchez JP, Danoff N. Healthcare utilization, barriers to care, and hormone usage among male-to-female transgender persons in New York City. *AJPH*. 2009;99:713-719. doi:10.2105/AJPH.2007.132035.

Seelman KL, Colon-Diaz MJP, LeCroix RH, Xavier-Brier M, Kattari L. Transgender noninclusive healthcare and delaying care because of fear: connections to general health and mental health among transgender adults. *Transgender Health*.2017;1:17-28.

Spitzer RL, Kroenke K, Williams JBW, Lowe B.A Brief Measure for Assessing Generalized Anxiety Disorder:*The GAD-7. Arch Intern Med.* 2006;166:1092-1097.

Streed CG, McCarthy EP, Haas JS. Association between gender minority status and self-reported physical and mental health in the United States. *JAMA Intern Med*. 2017;77:1210-1212.doi 10.1001/jamainternmed.2017.1460.

U.S. Census. *Educational attainment of the population 18 years and over, by age, sex, race, and Hispanic origin: 2016*. Available at 222.consus.gov/data/tables/2016/demo/education-attinment/cps-detailed-tables.html. Accessed October 2017.

van de Grift TC, Cohen-Kettenis PT, Steensma TD et al. Body Satisfaction and Physical Appearance in Gender Dysphoria. *Arch Sex Behav.* 2016;45:575–585 doi: 10.1007/s10508-015-0614-1.

White Hughto JM, Murchison GR, Clark D, Pachankis JE, Reisner SL. Geographic and individual difference in healthcare access for U.S. Transgender adults: A multilevel analysis. *LGBT Health.* 2016;3:424-433. doi: 10.1089/tgbt.2016.0044.

White Hughto JW, Reisner SL. A systematic review of the effects of hormone therapy on psychological functioning and quality of life in transgender individuals. *Transgender Health*. 2016;1:21-31.doi:10.1089/trgh.2015.0008.

White JM, Reisner SL, Pachankis J. Transgender stigma and health: A critical review of stigma determinants, mechanisms, and interventions. *Soc Sci Med*. 2015;147:222-231. doi:10.1016/j.socscimed.2015.11.010.

Williams DR. *Measuring Discrimination Resource*. Available at http://scholar.harvard.edu/files/davidrwilliams/files/measuring_discrimination_resource_feb_2012_0_0.pdf Accessed February 16, 2016.

Williams, D.R., Yu, Y., Jackson, J.S., and Anderson, N.B. Racial Differences in Physical and Mental Health: Socioeconomic Status, Stress, and Discrimination. J *Health Psychology*. 1997;2:335-351.

Zimet GD, Dahlem NW, Zimet SG, Farley GK. The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment.* 1988;52:30-41.