Published in final edited form as:

J Marriage Fam. 2017 October ; 79(5): 1295–1313. doi:10.1111/jomf.12424.

Marital Status and Perceived Discrimination among Transgender People

Hui Liu and

Department of Sociology, Michigan State University, 509 E. Circle Drive, 316 Berkey Hall, East Lansing, MI, 48824. Telephone: (517) 353-3265; Fax: (517) 432-2856

Lindsey Wilkinson

Department of Sociology, Portland State University, 1721 SW Broadway, 217 Cramer Hall, Portland, OR, 97201. Telephone: (503) 725-3975; Fax: (503) 725-3957

Abstract

Despite calls for increased attention to the experiences of transgender people, scientific understanding of the stigma and discrimination this population experiences is limited. We integrate minority stress and marital advantage perspectives to assess marital status differences in transgender-related perceived discrimination among transgender people in multiple life domains: the workplace, family, health care, and public accommodations. We analyze one of the first and most comprehensive large-scale samples of transgender people in the U.S. ($N = 4,286$), the National Transgender Discrimination Survey. We find that married transgender respondents tend to report lower levels of perceived discrimination than their cohabiting and previously married transgender counterparts. Married transgender respondents do not, however, report lower levels of perceived discrimination than their never married counterparts, once all covariates are accounted for. These marital status differences appear primarily among transwomen but not transmen. Economic resources account for some, but not all, of these differences.

Keywords

Gay; lesbian; bisexual; transgender; Marital status; Marriage; Stress; Coping; and/or Resiliency

About 1.4 million adults identify as transgender in the U.S. (Flores, Herman, Gates, & Brown, 2016), defined broadly as individuals who deviate from the gender binary or are gender variant (Grant et al., 2010; Valentine, 2008). While the transgender population is growing in size and visibility (Hartocollis, 2015), many experiences of transgender people remain a mystery to the public and scientific community. Because of the pervasiveness of transphobia—individual, societal, and institutional discrimination targeted at transgender people, researchers and policymakers have called for increased attention to the unique stigma and discrimination that transgender people experience (Grant et al., 2010; IOM, 2011; Lombardi, 2001). However, due to data limitations, we know little about such discrimination or the resources available to transgender people to combat discrimination

(Biblarz & Savci, 2010; IOM, 2011). It is also unknown whether disadvantages and resources are distributed unequally within the transgender population. Our lack of knowledge inhibits our ability to inform public policy and enhance the well-being of transgender people (IOM, 2011; Patterson, 2000).

Marriage, primarily different-gender marriage among cisgender individuals (i.e., those whose gender identity and sex at birth are in agreement), is an important social institution that is associated with increased accessibility to resources; these resources may promote well-being but are less accessible to unmarried people (Umberson, Williams, & Thomeer, 2013; Waite & Gallagher, 2000). Scholars assume that marriage among transgender individuals is also likely associated with individual well-being (Herek, 2006), and advocates contend that marriage equality may reduce the stigma directed at gender and sexual minorities (Wight, LeBlanc, & Badgett, 2013). Yet, such claims have been made with limited empirical support.

We integrate minority stress and marital advantage perspectives to theorize that marital status plays a key role in shaping transgender people's experiences of perceived discrimination. We analyze one of the first large-scale data sets incorporating transgender people—the National Transgender Discrimination Survey (NTDS)—to assess marital status differences in multiple domains of gender-related discrimination among transgender people. We address three research questions: 1) Do married and unmarried transgender people have different experiences of perceived discrimination within the workplace, family, health care, and public accommodations? 2) Do economic resources account for some of these differences? 3) Do these processes differ for transmen and transwomen? Our results speak to the implications of marriage equality for the well-being of gender and sexual minorities and to our general understanding of transgender people, one of the least understood segments of the gender- and sexual-minority population.

BACKGROUND

Defining the transgender population is challenging given there is no universally agreed upon definition of “transgender” (Gates, 2011; Pfeffer, 2010). Indeed, the term transgender is contentious, often used as an umbrella term to denote any person “whose gender identity or expression, or both, does not normatively align with their assigned sex” (Pfeffer, 2010: p. 167). This broad definition of transgender includes individuals who transition from one sex/gender to the other as well as cross-dressers, genderqueer or androgynous persons, or others who are gender non-conforming (Beemyn & Rankin 2011; Bockting et al., 2016; Flores et al., 2016; Grant et al., 2010; Valentine, 2008). For the purpose of this study, we use a definition of transgender that refers to people who seek to transition from their assigned birth sex to a different sex/gender. Although this narrower definition of transgender is often used interchangeably with transsexual, we prefer the term “transgender” because not all people who transition or seek to transition from their assigned birth sex to a different sex/gender have or will ever change their sex (i.e., medically transition via hormones and/or surgery).

Previous research, primarily based on small local or regional samples, has consistently highlighted the pervasive violence, harassment, and discrimination that transgender people face (Nemoto, Bodeker, & Iwamoto, 2011; Schilt, 2010; Stotzer, 2009)—a finding confirmed by data from a larger-scale sample, the National Transgender Discrimination Survey (NTDS) (Grant et al., 2010). Transgender people face high rates of victimization, such as sexual and physical violence (Stotzer, 2009), but also face subtler yet pervasive everyday harassment and discrimination, including disrespect, verbal street harassment, and unequal treatment at work and from health and social service providers (Lombardi, 2001; Schilt, 2010). Scholars suggest that such ongoing experiences of everyday discrimination are a major source of stress and have negative consequences for individual well-being, with effects comparable to other major stressors such as the loss of a job and the death of a spouse (Clark, Salas-Wright, Vaughn, & Whitfield, 2015).

Recent research suggests that family acceptance protects transgender people from a number of adverse outcomes, including homelessness, HIV infection, and suicide attempts (Grant et al., 2010). Increases in perceived quality of family relationships are also associated with higher levels of life satisfaction and self-esteem (Erich, Tittsworth, Dykes, & Cabuses, 2008). Nevertheless, “academic research on transgender people and their family relationships is almost nonexistent” (Biblarz & Savci, 2010, p. 489). Virtually no studies have examined whether transgender people’s experiences of discrimination vary across marital status, although there are theoretical reasons to expect this linkage, as we discuss next.

A Minority Stress Perspective on Marital Advantage among Transgender People

The minority stress paradigm was developed to address the stresses that accrue to gender and sexual minorities due to higher rates of stigma and discrimination (Meyer, 2003). According to the minority stress theory, gender-and sexual-minority status is a fundamental cause of discrimination and health disparities because it is socially stigmatized and entails disadvantage (IOM, 2011; Meyer, 2003). Transgender people represent one of the least understood and most stigmatized groups in the LGBT (lesbian, gay, bisexual, and transgender) population (Meyer, 2003). This “minority among minorities” jeopardy not only increases transgender people’s stress and damages their health by exposing them to institutional and interpersonal stigma and discrimination, but it also may modify how marriage shapes their experiences of discrimination.

The marital advantage framework suggests that marriage is related to unique economic, social, and psychological resources that cannot be obtained from other types of relationships and that in turn affect health and well-being (Umberson et al., 2013; Waite & Gallagher, 2000). This marital advantage is due to the protective resources that people obtain when they participate in this privileged institution (Becker, 1993; Waite & Gallagher, 2000) and the selection of people with greater access to economic and psychosocial resources into marriage (Fu & Goldman, 1996; Musick, Brand, & Davis, 2012). This perspective has primarily been developed based on cisgender different-gender marriages (often in relation to health and well-being, see Waite & Gallagher, 2000) and, more recently, has been extended to same-gender marriages (Reczek, Liu, & Spiker, 2013). However, it is unclear whether

these resources are also available to transgender people in same-gender (i.e., same primary gender identity between the partners) or different-gender (i.e., different primary gender identity between the partners) marriages.

Economic Resources—Married people generally have greater access to economic resources than unmarried people as a result of both marriage selection of individuals with higher socioeconomic status (SES) (Musick et al., 2012) and marriage protection through specialization, economies of scale, and the pooling of wealth (Becker, 1993; Waite & Gallagher, 2000). Because transgender people often experience precarious employment and transgender-related discrimination in the labor market (Grant et al., 2010), getting married likely increases their access to economic resources. In addition, transgender individuals who marry may be socio-economically advantaged in ways that protect against perceived discrimination, even before they marry. Transgender people are generally disadvantaged in the marriage market due to societal stigma and transphobia (Levitt & Ippolito, 2014), but those with higher SES may have better chances of marrying (either a same-sex or different-sex partner) than those with lower SES.

Higher levels of economic resources generally increase individuals' sense of control and enable them to choose living and work environments that minimize exposure to discrimination. Higher *family income* may increase married transgender people's ability to live in neighborhoods characterized by increased acceptance of transgender and sexual minorities. Higher family income may also provide greater access to high-quality, gender-sensitive health care and other public services (e.g., hotels, restaurants), which may reduce exposure to stigma and discrimination (Beam, 2007; Norton & Herek, 2012). Access to a spouse's *health insurance* may afford transgender people access to counseling, hormone therapy, and gender-reassignment surgeries that can lessen the stigma and distress associated with being transgender (Xavier, Honnold, & Bradfod, 2007). Having health insurance also gives people more options for basic health care, which may lead to more positive experiences of the health care system (Dean et al., 2000; Xavier et al., 2007). Yet, because many health insurance providers do not cover hormone therapy or gender reassignment surgeries, income and other economic resources are critical to accessing transition-related medical care, even among those with health insurance (Kahn, 2011).

Social and Psychological Resources—Married people have an advantage over unmarried people in access to social and psychological resources. Married transgender people may use these resources to avoid and respond to transgender-based discrimination. The marital relationship has historically been recognized as the most important social relationship in adulthood and an essential pathway to a meaningful life and personal maturity (Coontz, 2005). Marriage also provides a privileged *social identity* that arises from its highly valued status in U.S. society (Cherlin, 2004). This social identity may give married transgender people external and internal protections that their unmarried peers lack. *Externally*, due to social norms around marriage, married people are often given higher social status and assumed to be better citizens, workers, and parents (Coontz, 2005); marriage may thus reduce the stigma of being transgender. *Internally*, the perception of discrimination depends on the position of one's group in the social structure (Schmitt &

Branscombe, 2001). People with privileged social identities (e.g., those who are married) are less likely to attribute circumstances to being “internal, stable, [or] uncontrollable” and less likely to believe that others are “convey[ing] widespread exclusion and devaluation of one’s group” (Schmitt & Branscombe, 2001, p. 167), which may reduce the likelihood of perceiving others’ behaviors as transgender-based discrimination. By contrast, those who hold disadvantaged social identities (e.g., those who are unmarried) may be more likely to internalize negative prejudices and attitudes toward transgender status and thus be more likely to perceive others’ actions as transgender-related discrimination.

Moreover, marriage may increase access to social support and social integration (Umberson et al., 2013; Waite & Gallagher, 2000). Because transgender people often feel socially isolated and report a lack of support (Nemoto et al., 2011), even from their biological family and intimate partners (Factor & Rothblum, 2007), they may feel a lack of security and safety in public accommodations due to high levels of transphobia, thus increasing perceptions of discrimination. Having a spouse as a source of social support and companionship may mitigate perceptions of discrimination in social accommodations. Moreover, medical professionals often have limited knowledge of transgender health care needs (Meyer & Northridge, 2007); therefore, spouses, especially wives, may intervene in the health care of their transgender spouses (Pfeffer, 2010), which may reduce exposure to discrimination in this setting. Alternatively, transgender people who are more socially integrated and have greater access to social support may be advantaged in the marriage market and thus may be more likely to marry.

Gender Differences

In cisgender different-gender marriages, women tend to benefit more economically from their typically higher earning male spouses, but men benefit more from social and psychological resources provided by wives (Umberson et al., 2013; Williams & Umberson, 2004). It is unclear whether these gendered patterns hold for transgender spouses. These patterns may be reproduced as transgender individuals seek gender coherence within relationships with different-gender partners through traditional enactments of masculinity and femininity (Pfeffer, 2010; Ward, 2010). However, these gendered patterns are also likely to diverge in marriages involving a transgender spouse, due to transgender individuals’ complex experiences of gender (Kelly & Hauck, 2015; Schilt, 2010). Research suggests that relationships involving LGBT individuals often feature a less intensely gendered division of labor in both public and private spheres (Kelly & Hauck, 2015; Kurdek, 2007), particularly in same-gender marriages (Solomon, Rothblum, & Balsam, 2005). While difficult to estimate, transgender people are likely more often in relationships with same-gender or genderqueer partners, relative to cisgender people, given transgender respondents’ lower rates of heterosexual identification (Beemyn & Rankin, 2011; Grant et al., 2010). Transgender people are also often more aware of and intent on undoing gendered inequities (Connell, 2010). Thus, the differential advantages of marriage that accrue to cisgender men and women may not be experienced the same way by transmen and transwomen.

We expect that transwomen experience greater benefits from marriage in protecting perceived discrimination compared to transmen for several reasons. First, transitioning for

transmen is often a “status-boosting” process resulting in accrual of male privilege in the labor market and other social institutions (Pfeffer, 2010; Schilt, 2010). Transmen who are identified as male by coworkers and supervisors may experience increased status and accompanying pay raises and promotions and thus report less workplace discrimination (Schilt, 2010), which may lessen the relative economic benefits of marriage. In contrast, transwomen may experience the double burden of being both transgender and female (Schilt, 2010), resulting in increased perceptions of discrimination at work and thus increased economic returns from marriage. Moreover, transwomen are often partnered with cis-women (Bischof, Warnaar, Barajas, & Dhaliwal, 2011), which makes transwomen more likely to be labeled as non-heterosexual and thus more disadvantaged than transmen.

In addition, transitioning evokes more experiences of discrimination (Grossman, D’Augelli, Salter, & Hubbard, 2006), violence (especially hate crimes) (Dean et al., 2000; Devor, 2004), and minority stress for transwomen than transmen; transwomen may therefore feel more socially isolated than transmen. Married transwomen with a supportive spouse (either same-gender or different-gender) may feel more connected with others, less socially isolated, and more self-confident in their chosen gender (Levitt & Ippolito, 2014), and thus may report less transgender-related discrimination than unmarried transwomen. Moreover, it may be easier to identify or to “out” transwomen than it is to “out” transmen, especially in public accommodations. The physical transition for transwomen is often more difficult than it is for transmen due to the difficulty of undoing the masculinizing effects of testosterone (e.g., height, voice, Adam’s apple, facial hair) (Devor, 2004); violence and discrimination against transgender persons is less common among those who “pass” (Xavier et al., 2007). Married transwomen may be more likely than unmarried transwomen to appear in public with a companion (their spouse), and discriminatory actions are less frequently perpetrated against people who are with others (Branscombe & Ellemers, 1998). Presenting in public with a spouse, especially a different-gender spouse, may protect transwomen from harassment. Finally, transwomen, relative to transmen, may be less able to find a partner in the marriage market due to higher levels of stigma and discrimination, greater difficulties “passing,” and lower rates of stable relationship formation (Lewins, 2002), suggesting a stronger selection effect of marriage (thus a greater marital status difference) for transwomen than for transmen.

Transition Stage and Other Covariates

The stage of transition from one’s assigned sex/gender to one’s chosen sex/gender is important in understanding the everyday experiences of transgender people (Bradford, Reisner, Honnold, & Xavier, 2013; Dean et al., 2000; Lombardi, 2009). Exposure to discrimination is greater among transgender individuals who are living full time as the opposite sex/gender, who have begun a medical transition, who struggle with visual conformity and may not pass as their chosen gender, or who are “out” as transgender in various domains (Beemyn & Rankin, 2011; Bradford et al., 2013; Dean et al., 2000; Lombardi, 2009). Transgender individuals may be out as transgender in some domains of life but not others, and being out may be voluntary or involuntary, with voluntary disclosure more often associated with positive perceptions of appraisals of others (Kaufman & Johnson, 2004). Marital status also varies by transition stage. For example, those who

transition later in life are more likely to have experienced cisgender heterosexual marriage; they are also more vulnerable to family discrimination, including disruption of relationships with children and spouses (Beemyn & Rankin, 2011; Bradford et al., 2013; Dean et al., 2000; Lewins, 2002; Lombardi, 2009).

Both marital status and experiences of discrimination among transgender people are also likely related to other sociodemographic factors. For example, transgender individuals, especially transwomen of color and those of lower SES, suffer higher rates of discrimination and victimization, and they are also more disadvantaged in the marriage market than other transgender groups (Grant et al., 2010; Nemoto et al., 2011).

THE PRESENT STUDY

A minority stress perspective on marital advantage provides theoretical insights into the processes by which marriage may protect transgender people from perceived discrimination. Our general hypothesis is that *married transgender people report lower levels of perceived discrimination than unmarried transgender people in multiple domains of life (Hypothesis 1)*. We focus on four key domains of everyday life—the workplace, family, health care, and public accommodations—that have the most significant impact on transgender adults' quality of life (Factor & Rothblum, 2007; Xavier et al., 2007). Because transwomen face a greater risk of exposure to transphobia than transmen (Devor, 2004; Norton & Herek, 2012), we further expect that *marital status differences in perceived discrimination are larger for transwomen than for transmen (Hypothesis 2)*.

Although we could not empirically test all the potential mechanisms suggested by marital advantage and minority stress theories, we move a step forward by empirically exploring the role of economic resources—the most fundamental advantage related to marriage—in accounting for potential differences in perceived discrimination between married and unmarried transgender people. Because accrued economic resources from marriage are more important for women than for men and because transwomen experience a greater threat of discrimination than do transmen, we hypothesize that *economic resources partially explain marital status differences in perceived discrimination among transgender people, especially among transwomen (Hypothesis 3)*.

DATA

We used data from the National Transgender Discrimination Survey (NTDS), conducted by the National Center for Transgender Equality and the National Gay and Lesbian Task Force (Grant et al., 2010) and fielded September 2008 through March 2009. The NTDS sample included individuals who identified as transgender or gender nonconforming from all 50 states, the District of Columbia, Puerto Rico, Guam, and the U.S. Virgin Islands. Yet, NTDS is not population-based or representative, as the sample was recruited using convenience-sampling techniques including venue-based sampling and snowball sampling. The survey was announced through a network of more than 800 transgender-led or transgender-serving community-based organizations in the U.S. and through 150 active online community e-mail lists. State-level and local-level political and social groups comprised the largest portion of

organizations that participated. Two thousand paper surveys were made available to organizations that serve hard-to-reach populations—including rural, homeless, and low-income transgender and gender non-conforming people. The total NTDS sample included 6,456 valid respondents, including 6,021 who submitted online surveys and 435 who submitted paper surveys. Among the 6,456 respondents, 4,781 respondents were transgender and 1,675 were gender-nonconforming. Because our research questions focus on transgender people, our analytic sample included only those 4,781 respondents who identified as transgender (i.e., biological sex at birth is different from current primary gender identity or identify as transgender, transsexual, MTF, or FTM). We further excluded those missing data on marital status ($n=22$), biological sex at birth ($n=14$), or the key discrimination outcome measures ($n=478$). Our final analytic sample of 4,286 transgender respondents included 1,637 transmen and 2,649 transwomen.

MEASURES

Marital Status

Marital status was measured using the question, “What is your relationship status?” The response categories included married (reference), cohabiting, never married, and previously married (including separated, divorced, and widowed).

Perceived Discrimination

We created four scales of discrimination to tap perceptions of discrimination in the key domains of the workplace, family, health care, and public accommodations, respectively. Given our reliance on a minority stress perspective that highlights the cumulative effect of combined experiences of transphobia, similar to the effects of chronic general life stressors, we operationalize perceived discrimination as the frequency of transphobic events, without distinguishing between types of events (e.g., physical victimization and verbal harassment). The discrimination items we included in our measures were developed by the NTDS project team and have been used in previous studies based on this dataset (e.g., Cruz, 2014; Harrison, Grant, & Herman, 2012; Miller & Grollman, 2015). This strategy is consistent with well-used measures of perceived racial and heterosexual discrimination (Landrine & Klonoff, 1996; Szymanski, 2006). In analyses not shown (available upon request), we compared measures with and without physical victimization and also used factor-weighted items; these results revealed no substantive differences. All final discrimination scales were standardized based on the full sample and further log transformed to adjust for the skewed distributions.

We measured perceived discrimination in the *workplace* by summing thirteen dichotomous (1 = yes, 0 = no) variables indicating if the respondent had experienced the following due to their transgender status ($\alpha = .86$): not getting a job applied for; removed from direct contact with clients, customers, or patients; denied a promotion; lost job; harassed by someone at work; victim of physical violence by someone at work; victim of sexual assault by someone at work; forced to present in wrong gender to keep job; not able to work out a suitable bathroom situation with employer; denied access to appropriate bathrooms; asked inappropriate questions about transgender or surgical status; referred to by the wrong

pronoun, repeatedly and on purpose; and supervisors or coworkers shared information about respondent that they should not have.

Perceived discrimination by *family* was measured by summing four dichotomous (1 = yes, 0 = no or not applicable) variables indicating whether the respondent reported the following events due to their transgender status ($\alpha = .70$): relationship with spouse or partner ended; ex limited or stopped relationship with children; a court or judge limited or stopped relationship with children; and children chose not to speak with or spend time with respondent.

We measured perceived discrimination in *health care* by summing the following eighteen dichotomous (1 = yes, 0 = no) variables indicating whether the respondent reported experiencing discrimination due to their transgender status in the following ways ($\alpha = .79$): denied equal treatment, verbally harassed or disrespected, or physically attacked or assaulted 1) at doctor's office or hospital, 2) in emergency room, 3) in mental health clinic, 4) in drug treatment program, or 5) in ambulance or by EMT; postponed or did not try to get needed medical care or preventive care because of disrespect or discrimination from doctors or other healthcare providers; and refused treatment by doctor or other healthcare provider.

Finally, we measured perceptions of discrimination in four *public accommodations*: retail stores; hotels or restaurants; buses, trains, or taxis; and airports. We took the sum of twelve dichotomous (1 = yes, 0 = no) items that asked respondents if they had been, due to their transgender status, denied equal treatment or service, verbally harassed or disrespected, or physically attacked or assaulted in each accommodation ($\alpha = .76$).

Economic Resources

We measured economic resources with 1) household income and 2) health insurance coverage. Both are suggested to be important economic resources accrued via marriage (Becker, 1993; Waite & Gallagher, 2000). *Household income* was measured with an ordinal variable indicating gross annual household income, with response values ranging from 1 (< \$10K) to 14 (>\$250K). *Health insurance coverage* was measured with a dichotomous variable indicating whether the respondent currently had health insurance (1 = yes, 0 = no).

Covariates

We included two types of control covariates: transition-stage indicators and socio-demographic covariates.

Transition Stage—We controlled for the respondent's *full-time transgender status*, indicated by whether the respondent was living full time as the different sex/gender (1 = yes, 0 = no); *began living as transgender in adulthood*, indicated by whether the respondent began living part time as transgender after the age of 18 (1 = yes, 0 = no); *medical transition*, indicated by whether the respondent had begun a medical transition through hormones or surgery (1 = yes, 0 = no); and *visual conformity*, based on a question asking how often respondent believes people can tell they are transgender, even if they do not disclose their transgender status (ranging from 1 “always” to 5 “never”). We also controlled for *outness* in each separate domain of life when predicting discrimination in that particular domain.

Outness measures were derived from questions asking respondents if people in specific domains know or believe they are transgender. Outness within the workplace, family and health care domains were all measured (separately) using a dichotomous indicator (1 = “out”, 0 = “not out”). We measured outness in public accommodations by summing the number of domains in which respondents were out, including close friends, casual friends, work colleagues, and family (0–4). We were unable to determine if outness was voluntary or involuntary due to data limitations.

Socio-Demographic Covariates—*Age* at the time of the survey was measured in years and ranged from 18 to 83. *Race/ethnicity* included non-Hispanic white (the reference), non-Hispanic black or African American, Asian or Pacific Islander, American Indian or Alaska Native, Hispanic or Latino, and multiracial. We controlled for the respondents’ sexual orientation with a dichotomous variable that indicated whether the respondent reported being *heterosexual* (1 = yes, 0 = no). *Educational attainment* included less than a high school diploma, a high school diploma, some college, a college degree (the reference), and an advanced degree. *Employment status* was measured with a dichotomous variable indicating whether the respondent was currently employed (1 = yes, 0 = no). We also controlled for *the number of minor children* for whom the respondent reported being financially responsible (range 0–9).

ANALYTIC APPROACH

We ran a series of Ordinary Least Squares regression models to analyze the four standardized discrimination scores, separately. In Model 1, we tested the association between marital status and perceived discrimination, controlling for basic socio-demographic covariates. Model 2 added transition stage covariates to assess whether transition stage explained any association. Model 3 added economic resources to test whether economic resources accounted for the association. To fully consider potential gender differences, we stratified all analyses by gender. Results from t-tests (not shown) suggested that all gender differences in the key findings were statistically significant. We ran all analyses using Stata 13 (StataCorp, 2013).

RESULTS

Descriptive Results

Table 1 shows the descriptive statistics of all analyzed variables for the total sample and by marital status, for transwomen and transmen. Compared to the general U.S. population (data obtained from 2010 U.S. Census; statistics not shown in the table), our transgender sample was younger (38 vs. 44), more likely to have a college or advanced degree (46% vs. 30%), more likely to be non-Hispanic white (77% vs. 64%), more likely to have lower household income (\$30,000–\$39,999 vs. \$40,000–\$49,999), and less likely to have health insurance (81% vs. 84%).

In Table 1, we see more marital status differences in perceived discrimination among transwomen than transmen. All unmarried transwomen reported significantly higher levels of perceived discrimination than did married transwomen in all domains, with only two

exceptions: never married and married transwomen reported similar discrimination in the family domain, and previously married and married transwomen reported similar levels of discrimination in health care. Marital status differences in perceived discrimination were generally not significant among transmen, with two exceptions: compared to married transmen, previously married transmen reported more discrimination in the family domain, and cohabiting transmen reported more discrimination within public accommodations.

Table 1 also shows more marital status differences in transition stage and sociodemographic characteristics among transwomen than among transmen. For example, married and unmarried transmen were not significantly different from each other in terms of being out in any of the life domains. In contrast, all unmarried transwomen—never married, cohabiting, and previously married—were more likely to report being “out” in medical settings (58%, 60%, and 65%, respectively vs. 53%), relative to married transwomen. Previously married transwomen were also more likely than married transwomen to report being “out” at work (25% vs. 23%), while never married transwomen were less likely to report being “out” to family (43% vs. 48%) or “out” at work (18% vs. 23%), relative to married transwomen.

Regression Results

Total Sample—Tables 2–5 show OLS regression results for the domains of workplace, family, health care, and public accommodations, respectively. Results from Model 1 of Tables 2–5 suggest that, in the total sample, after controlling for basic socio-demographic covariates, cohabiting transgender respondents reported more perceived discrimination than did married transgender respondents in all four domains of life examined, including work (Table 2, $b = .26$, $p < .01$), family (Table 3, $b = .14$, $p < .001$), health care (Table 4, $b = .12$, $p < .01$), and public accommodations (Table 5, $b = .24$, $p < .001$). Previously married transgender respondents also reported more perceived discrimination than did married transgender respondents in the domains of work (Table 2, $b = .33$, $p < .001$), family (Table 3, $b = .66$, $p < .001$), and public accommodations (Table 5, $b = .15$, $p < .001$), but the two groups were not significantly different in the health care domain (Table 4, $b = .06$, $p > .05$). Never married and married transgender respondents reported similar levels of perceived discrimination in the domains of work (Table 2, $b = .15$, $p > .05$) and health care (Table 4, $b = .03$, $p > .05$), but never married transgender respondents reported more discrimination in the domains of family (Table 3, $b = .08$, $p < .05$) and public accommodations (Table 5, $b = .10$, $p < .01$) than did married transgender respondents.

Results from Model 1 also suggest sociodemographic differences in perceived discrimination among transgender respondents. Perceived discrimination decreased with age in all domains except for family. Surprisingly, transgender respondents with lower education tended to report less perceived discrimination than those with higher education in all domains except for family. Heterosexual transgender respondents reported less discrimination than their non-heterosexual counterparts in all domains. Native American transgender respondents reported more discrimination than did their non-Hispanic white counterparts in all domains. However, non-Hispanic black transgender respondents did not report different levels of perceived discrimination from their non-Hispanic white counterparts, with one exception: non-Hispanic black transwomen reported more perceived

discrimination in public accommodations than did non-Hispanic white transwomen. Our preliminary tests of interactions between marital status and race (results not shown but available) suggested that higher levels of perceived discrimination among cohabiting, relative to married transgender people, were present only among non-Hispanic whites.

After we controlled for the transition stage indicators in Model 2, the size and significance levels of marital status differences were all reduced, although some remained significant (comparing Models 1 and 2). In Model 2, after both socio-demographic and transition stage covariates were controlled, never married transgender people were no longer different from married transgender people, except in the family domain. Previously married transgender people, however, still reported more perceived discrimination within the work, family, and public accommodation domains, and cohabiting transgender people still reported more perceived discrimination within the family, health care and public accommodation domains, compared to their married transgender counterparts. Results from Model 2 also suggested that living full time as transgender and transitioning medically were positively associated with perceived discrimination in all four domains; however, both visual conformity and beginning a transition in adulthood were negatively associated with perceived discrimination.

We added family income and health insurance coverage as additional covariates in Model 3. Results from Model 3 suggest that for the total sample, higher levels of household income were associated with lower levels of perceived discrimination in all domains except the family domain, and having health insurance was associated with lower levels of perceived discrimination within the work, family, and public domains. A comparison of the results from Models 2 and 3 reveals that after household income and health insurance coverage were controlled, all marital status differences in perceived discrimination became insignificant with only two exceptions: previously married and cohabiting transgender people reported more discrimination within the family, and cohabiting transgender people reported more discrimination in public accommodations, relative to their married transgender counterparts.

Gender Differences—Interestingly, the key patterns we observed in the total transgender sample were only present for transwomen but not for transmen, as shown in Tables 2–5. Specifically, with basic socio-demographic covariates controlled (Model 1), compared to married transwomen, cohabiting transwomen reported more perceived discrimination in all four life domains; previously married transwomen reported more perceived discrimination within the work, family, and public accommodation domains; and never married transwomen reported more perceived discrimination within the family and public accommodation domains. After transition stage variables were controlled (Model 2), in comparison to married transwomen, previously married transwomen reported more perceived discrimination within the work, family, and public accommodation domains, both cohabiting and never married transwomen reported more perceived discrimination within public accommodations, and cohabiting transwomen reported more perceived discrimination within the family. Finally, economic resources (Model 3) fully explained the differences in perceived workplace discrimination between previously married and married transwomen, as well as differences in discrimination within public accommodations between never married

and married transwomen. Yet, after all covariates were controlled in Model 3, previously married and cohabiting transwomen still reported more discrimination within the domains of family and public accommodations relative to married transwomen.

There were virtually no significant differences in perceived discrimination across marital status among transmen (Tables 2–5), with a few exceptions: in all models, previously married transmen reported more discrimination within the family than did married transmen. Because the sample size for previously married transmen was small ($N=75$), we call for caution when interpreting this result. In addition, never married and cohabiting transmen reported more perceived discrimination within the family than did married transmen after the transition stage covariates were controlled (Table 3, Model 2), and these differences were explained by economic resources (Table 3, Model 3). Finally, cohabiting transmen reported more perceived discrimination in public accommodations in Model 1 (Table 5), yet this difference was reduced to insignificance in Model 2 with the addition of controls for transition stage.

DISCUSSION

The U.S. has witnessed significant progress in promoting and securing legal rights for the LGBT population over the past few decades. However, we have seen less progress toward transgender equality, and transphobia still pervades society (Grant et al., 2010; Norton & Herek, 2012). A profound lack of scientific and public understanding about transgender people—perhaps due to data limitations—presents a major obstacle in reducing transphobia and improving the well-being of transgender individuals. We analyze one of the first and most comprehensive large-scale samples of transgender people in the U.S. to assess how marital status shapes experiences of perceived discrimination in various life domains among transgender people. Results provide empirical and theoretical insight into the heterogeneity among transgender individuals and enhance scientific understanding about this most disadvantaged but least explored segment of the LGBT population.

Does Marriage Matter?

The marital advantage paradigm suggests that marriage is related to greater access to economic, social, and psychological resources because of marriage's protective role (Waite & Gallagher, 2000) and/or selection (Fu & Goldman, 1996; Musick et al., 2012). We theorize that access to such resources (either through selection or protection) helps transgender people combat life stressors related to their gender-minority status and thus alleviates minority stress. Consistent with this view and also Hypothesis 1, our results suggest that married transgender people, especially transwomen, experienced lower levels of perceived discrimination in various life domains than their unmarried counterparts, especially relative to their cohabiting and previously married counterparts. Our results suggest that both previously married and cohabiting transpersons were more likely than married transpersons to be living full time as transgender and to have transitioned medically, both of which were related to greater discrimination; this may help explain some of the differences in perceived discrimination across marital status. Future research should further explore transition differences between married and unmarried transpersons to understand

how relationships shape transition experiences and vice versa: the characteristics of transitions may put individuals at different risk of exposure to discrimination and create varying opportunities for relationship formation. At the same time, relationships may shape the transition process and feelings of gender coherence (Pfeffer, 2010; Ward, 2010).

Another possibility is that transgender people who marry are more psychosocially and economically advantaged than those who cohabit or those who become divorced/widowed, in ways that protect against perceived discrimination, even before entering into a union—suggesting a selection process (Levitt & Ippolito, 2014). Indeed, the processes of marriage selection may be more pronounced among the transgender population than the heterosexual population given the variety of ways transgender individuals experience marital transitions (e.g., selection into marriage, marital dissolution due to transgender related reasons). Because of the stigma and transphobia within the marriage market, transgender people face major disadvantages in finding long-term partners and maintaining relationship stability. Therefore, transpersons who get and remain married may be highly selective based on their preexisting economic and socio-psychological advantages—which may explain the lower perceived discrimination among married transgender respondents relative to their cohabiting or previously married counterparts.

Moreover, given the disadvantages we find among cohabitators relative to the married, it is also likely that having a legally recognized marriage is especially important for transgender people because they are more likely to lack economic, social, and psychological resources relative to the general population (Factor & Rothblum, 2007). In this sense, the marriage-equality movement and resulting policies to increase transgender people's access to legal marriage should be effective in reducing transpersons' experiences of discrimination (Wight et al., 2013). Because transgender people are more likely than the general population to be involved in same-gender marriages, which were not legalized in most U.S. states when the data were collected (2008–2009), transgender cohabitators were likely to be more limited in their access to legal marriages, despite possible intentions to marry. This may have exacerbated the stigma and minority stress associated with their transgender status and increased perceived discrimination.

Yet, we find few differences between never married and married transgender individuals in their reports of perceived discrimination after all covariates are controlled. These results are indeed consistent with the cisgender marriage literature that suggests that marital status differences in well-being are primarily driven by the negative effects of marital dissolution rather than the protective resources provided by marriage per se (Williams & Umberson, 2004), and that the costs of exiting a marriage through divorce or widowhood are substantially greater than the potential benefits of marriage entry (Umberson et al., 2013; Williams & Umberson, 2004). This also helps to explain the disadvantage of previously married transgender people relative to their married transgender counterparts. The never married, who have not experienced the transition out of marriage, are not disadvantaged relative to the married (Umberson et al., 2013). Indeed, married couples with one or both transgender partners represent a stigmatized relationship form, and they may be uniquely exposed to couple-level minority stressors that their never married counterparts might avoid (LeBlanc, Frost, & Wight, 2015).

Gender Differences

Consistent with Hypothesis 2, we found that marital status differences in perceived discrimination were more prevalent among transwomen than transmen. These results may be due to different selection processes for transwomen and transmen: perhaps more advantaged transwomen select into marriage due to higher levels of transphobia experienced by transwomen relative to transmen (Levitt & Ippolito, 2014; Schilt, 2010). However, in our sample, transmen were less likely (15%) to be married than were transwomen (25%), which is in contrast to the general population pattern of men, who are more likely than women to marry (Copen et al., 2012). This suggests that the marital selection process might be less relevant to transwomen than to transmen. Yet, because the NTDS is not a random sample, we are unsure whether this observed gender difference represents a true population pattern or sample-selection bias.

The larger marital status differences in perceived discrimination among transwomen than transmen may be due, in part, to transwomen's greater exposure to minority stress (Dean et al., 2000; Devor, 2004), which makes marriage especially valuable and marital dissolution especially stressful. For example, as a result of increased transphobia directed at transwomen, separation in the wake of one's coming out and transitioning may lead to denied access to children. In our sample, while 69% of previously married transwomen experienced disrupted relationships with children, only 21% of previously married transmen had such experiences. Related, we found significant gender differences in transition stage variables across marital status groups (shown in Table 1), suggesting that the timing of transgender identity formation and marital status may be experienced differently for transmen and transwomen. Transwomen may be more likely to experience marriage prior to transition, with the transition potentially disrupting the marriage, given the larger proportion of previously married transwomen who reported first living as transgender in adulthood, relative to married and never married transwomen. In contrast, among transmen, married respondents were more likely than those cohabiting or never married to be living full time as transgender and to have medically transitioned, and married transmen reported the highest levels of visual conformity across all gender and marital status groups. More research on gender differences in the association between transgender identity milestones and transitions into and out of marriage is necessary to better understand gender differences in the link of marriage and perceived discrimination among the transgender population.

Role of Economic Resources

Consistent with Hypothesis 3, our results suggest that economic resources (measured by household income and health insurance coverage) partially explained our significant findings of marital status differences in perceived discrimination among transwomen. In our sample, the median family income of married transwomen was between \$70,000 and \$79,000, and median income of unmarried transwomen was between \$30,000 and \$39,999. Greater family income may grant more privileges to married transwomen relative to their unmarried counterparts; for example, married transwomen may find it easier to choose their living and work environments and access gender-sensitive services and thus reduce exposure to transphobia and discrimination.

In our sample, 91% of married transwomen reported having health insurance, but only 76% of unmarried transwomen reported so. In our multivariate models, income appeared to predict discrimination in medical care better than insurance coverage does. However, bivariate associations (not shown) indicated that health insurance coverage was negatively associated with perceived discrimination in health care among transwomen and positively associated with transitioning medically. Nevertheless, not all health insurance plans cover transgender-related health services, so we had expected income to be a better predictor of discrimination in health care than health insurance coverage. Many transgender people have difficulty maintaining adequate employment and do not have adequate health care coverage (Xavier et al., 2007). Our results suggest that policies and programs designed to enhance economic resources for trans-related health care, especially for the unmarried, should reduce experiences of discrimination.

Although economic resources accounted for some marital status differences in discrimination, they could not fully explain all differences. The lower levels of perceived discrimination of married relative to previously married and cohabiting transgender individuals, in particular among transwomen, remained significant after we controlled for economic resources, especially in the family and public domains. This suggests that the association between marital status and transgender discrimination goes beyond economic resources; additional socio-psychological pathways may explain the association, and these require future research attention.

Limitations

As one of the first large-scale studies on marital status and perceived discrimination among transgender people, our study is limited in several ways as a result of both sampling and the absence of information within the data. First, the NTDS did not use a nationally representative, population-based random sample. The recruitment process was based on convenience-sampling techniques (i.e., non-probability sampling methods). However, the NTDS includes valuable information on experiences of discrimination and marital status among transgender people across the U.S. and is, so far, the most comprehensive large-scale dataset that addresses our research questions. Second, although we work from a marital advantage and minority stress perspective to build our research hypotheses on how marital status shapes transgender people's experiences of discrimination, we cannot determine causality or selection processes due to the cross-sectional nature of the data. Third, the NTDS is absent of important information such as marital history, partners' characteristics (e.g., gender of the partner), potential psychosocial mechanisms, and general health and well-being measures. All such information is important for understanding the life context of transgender people and their experiences with discrimination. Large-scale longitudinal data is needed that includes more information on transgender people, preferably dyadic data that follows both transgender individuals and their partners. Moreover, it is beyond the scope of the current study to fully examine the roles of intersecting statuses such as race and sexual orientation in the association between marital status and perceived discrimination. Future research should address these intersections given the powerful force these factors play in experiences of discrimination among transgender people. Finally, we are unable to assess whether the observed marital advantage (cohabitation disadvantage) among transwomen is

due to previous legal restrictions on same-gender marriage. Future research should explore this finding among a transgender sample that has legal access to marriage.

CONCLUSION

This study makes a significant contribution to the scientific understanding of a severely understudied group: the transgender population. We use one of the only currently available large-scale datasets of transgender people to provide the first assessment of marital status differences in multiple domains of transgender-related discrimination. Informed by the minority stress perspective, we extend the established marital advantage theory to a specific, understudied type of marital relationship: marriages involving a transgender individual. Although most previous studies on marital advantage focus on health outcomes, we extend this framework to examine perceived discrimination, an outcome that is more proximately related to minority stress and that comprises a major risk factor for ultimate health disparities. Our findings of generally lower levels of perceived discrimination among married transgender respondents, in particular transwomen, relative to their cohabiting and previously married counterparts, draw attention to the heterogeneity of this population, highlighting marital status as a key social factor in stratifying the life experiences of transgender people. High levels of societal transphobia present a continued challenge for public policies and programs promoting marriage equality and equal treatment among the transgender population. Findings highlight the importance of providing gender and sexual minorities legal access to marriage as well as the importance of mitigating the stress and discrimination faced by transwomen who experience marital dissolution, perhaps as a result of transitioning.

Acknowledgments

This research was supported by grant K01AG043417 (PI: Hui Liu) from the National Institute on Aging and by grant R03HD078754 (PIs: Hui Liu and Corinne Reczek) from the Eunice Kennedy Shriver National Institute of Child Health and Human Development and the Office of Behavioral and Social Sciences Research. We are grateful to Cameron Whitley for helping us access the data and to Debra Umberson for helpful comments on the manuscript.

References

- Beam, C. *Transparent: Love, family, and living the T with transgender teenagers*. Orlando, FL: Harcourt Books; 2007.
- Becker, GS. *A treatise on the family*. Cambridge, MA: Harvard University Press; 1993.
- Beemyn, G., Rankin, S. *The lives of transgender people*. New York: Columbia University Press; 2011.
- Biblarz TJ, Savci E. Lesbian, gay, bisexual, and transgender families. *Journal of Marriage and Family*. 2010; 72:480–497. DOI: 10.1111/j.1741-3737.2010.00714.x
- Bischof GH, Warnaar BL, Barajas MS, Dhaliwal HK. Thematic Analysis of the Experiences of Wives Who Stay with Husbands who Transition Male-to-Female. *Michigan Family Review*. 2011; 15:16–34.
- Bockting, Walter, Coleman, Eli, Deutsch, Madeline B., Guillamon, Antonio, Meyer, Ilan, Meyer, Walter, III, Reisner, Sari, Sevelius, Jae, Ettner, Randi. Adult development and quality of life of transgender and gender nonconforming people. *Current Opinion in Endocrinology, Diabetes & Obesity*. 2016; 23(2):188–197.
- 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. *American*

Journal of Public Health. 2013; 103:1820–1829. DOI: 10.2105/ajph.2012.300796 [PubMed: 23153142]

Branscombe, NR., Ellemers, N. Coping with group-based discrimination: Individualistic versus group-level strategies. In: Swim, JK., Stangor, C., editors. Prejudice: The target's perspective. New York: Academic Press; 1998. p. 243-266.

Cherlin AJ. The deinstitutionalization of American marriage. Journal of Marriage and Family. 2004; 66:848–861. DOI: 10.1111/j.0022-2445.2004.00058.x

Clark TT, Salas-Wright CP, Vaughn MG, Whitfield KE. Everyday discrimination and mood and substance use disorders: A latent profile analysis with African Americans and Caribbean Blacks. Addictive Behaviors. 2015; 40:119–125. DOI: 10.1016/j.addbeh.2014.08.006 [PubMed: 25254321]

Connell C. Doing, undoing, or redoing gender? Learning from the workplace experiences of transpeople. Gender & Society. 2010; 24(1):31–55. DOI: 10.1177/0891243209356429

Coontz, S. Marriage, a history: From obedience to intimacy, or how love conquered marriage. New York: Viking Press; 2005.

Copen, CE., Daiels, K., Vespa, J., Mosher, WD. National Health Statistics Reports No 49. National Center for Health Statistics; Hyattsville, MD: 2012. First marriages in the United States: Data from the 2006–2010 National Survey of Family Growth. Retrieved from <http://www.cdc.gov/nchs/data/nhsr/nhsr049.pdf>

Cruz T. Assessing access to care for transgender and gender nonconforming people: A consideration of diversity in combating discrimination. Social Science & Medicine. 2014; 110:65–73. [PubMed: 24727533]

Dean L, Meyer IH, Robinson K, Sell RL, Sember R, Silenzio VMB, ... Xavier J. Lesbian, gay, bisexual, and transgender health: Findings and concerns. Journal of the Gay and Lesbian Medical Association. 2000; 4:102–151.

Devor A. Witnessing and mirroring: A fourteen stage model of transsexual identity formation. Journal of Gay & Lesbian Mental Health. 2004; 8:41–67. DOI: 10.1080/19359705.2004.9962366

Erich S, Tittsworth J, Dykes J, Cabuses C. Family relationships and their correlations with transsexual well-being. Journal of GLBT Family Studies. 2008; 4:419–432. DOI: 10.1080/15504280802126141

Factor RJ, Rothblum ED. A study of transgender adults and their non-transgender siblings on demographic characteristics, social support, and experiences of violence. Journal of LGBT Health Research. 2007; 3:11–30. DOI: 10.1080/15574090802092879 [PubMed: 19042902]

Flores, AR., Herman, JL., Gates, GJ., Brown, TNT. How many adults identify as transgender in the United States. Los Angeles, CA: The Williams Institute; 2016.

Fu H, Goldman N. Incorporating health into models of marriage choice: Demographic and sociological perspectives. Journal of Marriage and the Family. 1996; 58:740–758. DOI: 10.2307/353733

Gates, G. How many people are lesbian, gay, bisexual, and transgender?. Williams Institute, UCLA School of Law; 2011. Retrieved from <http://williamsinstitute.law.ucla.edu/research/census-lgbt-demographics-studies/how-many-people-are-lesbian-gay-bisexual-and-transgender/>

Grant, JM., Mottet, LA., Tanis, J., Herman, JL., Harrison, J., Keisling, M. National transgender discrimination survey: Full report. The National Center for Transgender Equality and the National Gay and Lesbian Task Force; Washington, DC: 2010. Retrieved from http://www.thetaskforce.org/static_html/downloads/reports/reports/ntds_full.pdf

Grossman AH, D'Augelli AR, Salter NP, Hubbard SM. Comparing gender expression, gender nonconformity, and parents' responses of female-to-male and male-to-female transgender youth. Journal of LGBT Issues in Counseling. 2006; 1:41–59. DOI: 10.1300/J462v01n01_04

Harrison J, Grant J, Herman J. A gender not listed here: Genderqueers, gender rebels, and otherwise in the National Transgender Discrimination Survey. LGBTQ Policy Journal. 2012; 2:13–24.

Hartocollis, A. The new girl in school: Transgender surgery at 18. New York Times. 2015 Jun 16. Retrieved from <http://www.nytimes.com>

Herek GM. Legal recognition of same-sex relationships in the United States: A social science perspective. American Psychologist. 2006; 61:607–621. DOI: 10.1037/0003-066x.61.6.607 [PubMed: 16953748]

- Institute of Medicine (IOM). The health of lesbian, gay, bisexual, and transgender people: Building a foundation for a better understanding. Washington, DC: National Academies Press; 2011. Retrieved from <https://www.iom.edu/Reports/2011/The-Health-of-Lesbian-Gay-Bisexual-and-Transgender-People.aspx>
- Kahn L. Transgender health at the crossroads: Legal norms, insurance markets, and the threat of healthcare reform. *Yale Journal of Health Policy, Law, and Ethics*. 2011; 11:375–417.
- Kaufman JM, Johnson C. Stigmatized individuals and the process of identity. *The Sociological Quarterly*. 2004; 45(4):807–833.
- Kelly M, Hauck L. Doing housework, redoing gender: Queer couples negotiate the household division of labor. *Journal of GLBT Family Studies*. 2015; 11(5):438–464. DOI: 10.1080/1550428X.2015.1006750
- Kurdek LA. The allocation of household labor by partners in gay and lesbian couples. *Journal of Family Issues*. 2007; 28:132–148. DOI: 10.1177/0192513X06292019
- Landrine H, Klonoff EA. The schedule of racist events: A measure of racial discrimination and a study of its negative physical and mental health consequences. *Journal of Black Psychology*. 1996; 22(2):144–168.
- LeBlanc A, Frost DM, Wight RG. Minority stress and stress proliferation among same-sex and other marginalized couples. *Journal of Marriage and Family*. 2015; 77(1):40–59. [PubMed: 25663713]
- Levitt HM, Ippolito MR. Being transgender: Navigating minority stressors and developing authentic self-presentation. *Psychology of Women Quarterly*. 2014; 38:46–64. DOI: 10.1177/0361684313501644
- Lewins F. Explaining stable partnerships among FTMs and MTFs: a significant difference? *Journal of Sociology*. 2002; 38(1):760–88. DOI: 10.1177/144078302128756507
- Lombardi E. Enhancing transgender health care. *American Journal of Public Health*. 2001; 91:869–872. DOI: 10.2105/ajph.91.6.869 [PubMed: 11392924]
- Lombardi E. Varieties of transgender/transsexual lives and their relationship with transphobia. *Journal of Homosexuality*. 2009; 56:977–992. DOI: 10.1080/00918360903275393 [PubMed: 19882422]
- Meyer IH. Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*. 2003; 129:674–697. DOI: 10.1037/0033-2909.129.5.674 [PubMed: 12956539]
- Meyer, IH., Northridge, ME. The health of sexual minorities: Public health perspectives on lesbian, gay, bisexual and transgender populations. New York: Springer; 2007.
- Miller LR, Grollman EA. The social costs of gender nonconformity for transgender adults: Implications for discrimination and health. *Sociological Forum*. 2015; 30(3):809–831. [PubMed: 27708501]
- Musick K, Brand JE, Davis D. Variation in the relationship between education and marriage: Marriage market mismatch? *Journal of Marriage and Family*. 2012; 74:53–69. DOI: 10.1111/j.1741-3737.2011.00879.x [PubMed: 22563132]
- National Gay and Lesbian Task Force. NTDS Public Use Dataset Technical Documentation. Washington DC: 2011.
- Nemoto T, Bodeker B, Iwamoto M. Social support, exposure to violence and transphobia, and correlates of depression among male-to-female transgender women with a history of sex work. *American Journal of Public Health*. 2011; 101:1980–1988. DOI: 10.2105/ajph.2010.197285 [PubMed: 21493940]
- Norton AT, Herek GM. Heterosexuals' attitudes toward transgender people: Findings from a national probability sample of U.S. adults. *Sex Roles*. 2012; 68:738–753. DOI: 10.1007/s11199-011-0110-6
- Patterson CJ. Family relationships of lesbians and gay men. *Journal of Marriage and Family*. 2000; 62:1052–1069. DOI: 10.1111/j.1741-3737.2000.01052.x
- Pfeffer CA. Women's work: Women partners of transgender men doing housework and emotional work. *Journal of Marriage and Family*. 2010; 72:165–183. DOI: 10.1111/j.1741-3737.2009.00690.x

- Reczek, C., Liu, H., Spiker, R. Same-sex unions and health: An examination of alcohol use. Paper presented at the annual meeting of the Population Association of America; New Orleans, LA. 2013 Apr.
- Schilt, K. Just one of the guys? Transgender men and the persistence of gender inequality. Chicago: University of Chicago Press; 2010.
- Schmitt, MT., Branscombe, NR. European Review of Social Psychology. John Wiley & Sons; 2001. The meaning and consequences of perceived discrimination in disadvantaged and privileged social groups; p. 167-199.
- Solomon SE, Rothblum ED, Balsam KF. Money, housework, sex, and conflict: Same-sex couples in civil unions, those not in civil unions, and heterosexual married siblings. *Sex Roles*. 2005; 52:561–575. DOI: 10.1007/s11199-005-3725-7
- StataCorp. Stata statistical software: Release 13. College Station, TX: Author; 2013.
- Stotzer RL. Violence against transgender people: A review of United States data. *Aggression and Violent Behavior*. 2009; 14:170–179. DOI: 10.1016/j.avb.2009.01.006
- Szymanski D. Does internalized heterosexism moderate the link between heterosexist events and lesbians' psychological distress? *Sex Roles*. 2006; 54(3/4):227–234. DOI: 10.1007/s11199-006-9340-4
- Umberson, D., Williams, K., Thomeer, M. Family status and mental health: Recent advances and future directions. In: Aneshensel, CS., Phelan, JC., editors. *Handbook of the sociology of mental health*. 2. Springer Publishing; 2013.
- Valentine, D. *Imagining transgender: An ethnography of a category*. Durham, NC: Duke University Press; 2008.
- Ward J. Gender labor: Transmen, femmes, and collective work of transgression. *Sexualities*. 2010; 13(2):236–254. DOI: 10.1177/1363460709359114
- Waite, LJ., Gallagher, M. *The case for marriage: Why married people are happier, healthier, and better off financially*. New York: Doubleday; 2000.
- Williams K, Umberson D. Marital status, marital transitions, and health: A gendered life course perspective. *Journal of Health and Social Behavior*. 2004; 45:81–98. DOI: 10.1177/002214650404500106 [PubMed: 15179909]
- Wight RG, LeBlanc AJ, Lee Badgett MV. Same-sex legal marriage and psychological well-being: Findings from the California Health Interview Survey. *American Journal of Public Health*. 2013; 103:339–346. [PubMed: 23237155]
- Xavier, J., Honnold, JA., Bradford, J. *The health, health-related needs, and lifecourse experiences of transgender Virginians*. Virginia Department of Health; Richmond, VA: 2007.

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

Table 1

Descriptive Statistics (Means/Proportions) of Analytic Variables

	Transwomen (MTF) (n=2649)				Transmen (FTM) (n=1637)				
	Full Sample (n=4286)	Married (n=665)	Never Married (n=867)	Cohabiting (n=442)	Previously Married (n=675)	Married (n=238)	Never Married (n=647)	Cohabiting (n=677)	Previously Married (n=75)
Perceived Discrimination									
Work (0–13)	3.14	2.69	3.34***	3.69***	3.30***	3.03	2.87	3.09	3.40
Family (0–4)	0.57	0.48	0.40	0.70***	1.39***	0.29	0.28	0.29	0.84***
Health Care (0–18)	1.58	1.09	1.49***	1.61***	1.16	2.13	1.90	1.96	2.67
Public Accommodations (0–12)	1.27	0.81	1.34***	1.47***	1.04**	1.20	1.31	1.73***	1.32
Socio-Demographic Covariates									
Age (18–83)	37.85	46.07	35.39***	37.30***	49.86***	34.10	29.70***	30.39***	36.25
Educational Attainment									
< High School (0/1)	0.03	0.02	0.06***	0.06***	0.02	0.02	0.03	0.03	0.01
High School (0/1)	0.08	0.06	0.15***	0.09*	0.07	0.05	0.08	0.06	0.01*
Some college (0/1)	0.42	0.45	0.45	0.46	0.43	0.33	0.41*	0.37	0.44
College (0/1)	0.26	0.20	0.22	0.24	0.26*	0.31	0.33	0.32	0.25
Advanced degree (0/1)	0.20	0.27	0.13***	0.14***	0.21*	0.29	0.16	0.22*	0.28
Race/Ethnicity									
Non-Hispanic white (0/1)	0.77	0.84	0.70***	0.74***	0.88	0.75	0.73	0.76	0.72
Non-Hispanic black (0/1)	0.05	0.03	0.09***	0.05	0.02	0.06	0.06	0.05	0.01*
Non-Hispanic Asian (0/1)	0.03	0.02	0.05***	0.04*	0.01	0.01	0.04**	0.04*	0.01
Non-Hispanic Native American (0/1)	0.05	0.04	0.05	0.06	0.05	0.06	0.05	0.04	0.09
Non-Hispanic Multiracial (0/1)	0.04	0.04	0.04	0.05	0.02	0.05	0.04	0.05	0.07
Hispanic (0/1)	0.05	0.03	0.07**	0.05	0.02	0.06	0.07	0.06	0.08
Employed (0/1)	0.69	0.73	0.63***	0.67*	0.66**	0.74	0.70	0.75	0.76
Heterosexual (0/1)	0.21	0.23	0.21	0.14***	0.20	0.37	0.22***	0.18***	0.29
Number of minor dependents (0–9)	0.32	0.72	0.07***	0.26***	0.58**	0.56	0.05***	0.19***	0.33*

	Transwomen (MTF) (n=2649)				Transmen (FTM) (n=1637)				
	Full Sample (n=4286)	Married (n=665)	Never Married (n=867)	Cohabiting (n=442)	Previously Married (n=675)	Married (n=238)	Never Married (n=647)	Cohabiting (n=677)	Previously Married (n=75)
Transition Stage Covariates									
Full time transgender (0/1)	0.73	0.54	0.70***	0.82***	0.79***	0.87	0.75***	0.76***	0.80
Began living as trans in adulthood	0.71	0.78	0.68***	0.73	0.82*	0.64	0.62	0.68	0.75
Medical transition (0/1)	0.78	0.79	0.78	0.87***	0.88***	0.84	0.68***	0.71***	0.80
Visual conformity (1–5)	3.52	3.51	3.33**	3.51	3.45*	4.20	3.58***	3.49***	3.79***
Out at work (0/1)	0.26	0.23	0.18*	0.20	0.25*	0.30	0.31	0.34	0.33
Out in medical settings (0/1)	0.56	0.53	0.58*	0.60*	0.65***	0.55	0.51	0.54	0.56
Out to family (0/1)	0.49	0.48	0.43*	0.48	0.45	0.58	0.55	0.54	0.49
Outness in public (0–4)	1.71	1.56	1.50	1.57	1.58	1.90	2.02	1.98	1.93
Economic Resources									
Household income (median)	\$30–39K	70–79K	20–29K***	30–39K***	40–49K***	60–69K	20–29K***	30–39K***	30–39K***
Health insurance Coverage (0/1)	0.81	0.91	0.75***	0.73***	0.81***	0.89	0.80***	0.81**	0.83

Note:

*** p .001

** p .01

* p .05 (two-tailed tests, compared with the married).

Differences by marriage were assessed using t-tests for ordinal and continuous variables and chi-square tests for categorical variables

Table 2
Coefficients from OLS Regression Models Predicting Perceived Discrimination in Workplace

	Full Sample			Transwomen			Transmen		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
<i>Marital Status (ref=Married)</i>									
Never Married	0.15	0.07	-0.09	0.19	0.08	-0.10	0.05	0.08	-0.05
Cohabiting	0.26**	0.14	0.01	0.38***	0.19	0.05	0.13	0.15	0.04
Previously Married	0.33***	0.18*	0.04	0.39***	0.19*	0.05	0.27	0.27	0.12
<i>Socio-Demographic Covariates</i>									
Age	-0.01***	-0.01***	-0.01**	-0.01***	-0.01***	-0.01***	0.00	-0.01	0.00
Education(ref=College)									
< High School	-0.55***	-0.42**	-0.49**	-0.53**	-0.39*	-0.54**	-0.73**	-0.61*	-0.53*
High School	-0.24*	-0.15	-0.26*	-0.27*	-0.17	-0.30*	-0.23	-0.11	-0.18
Some College	0.06	0.09	0.01	0.19*	0.18*	0.08	-0.16	-0.10	-0.14
Advanced Degree	0.11	0.09	0.15*	0.11	0.11	0.18	0.11	0.10	0.15
Employed	0.09	0.10	0.21***	0.04	0.10	0.25***	0.19*	0.13	0.20*
<i>Race/Ethnicity (ref=Non-Hispanic White)</i>									
Non-Hispanic Black	-0.10	-0.16	-0.21	0.04	-0.16	-0.19	-0.33	-0.26	-0.29
Hispanic	0.09	-0.04	-0.04	0.15	-0.08	-0.08	0.04	0.02	0.02
Non-Hispanic Native American	0.58***	0.52***	0.46***	0.57***	0.49***	0.46***	0.54**	0.53**	0.46*
Non-Hispanic Asian	-0.45***	-0.34*	-0.32*	-0.35	-0.28	-0.27	-0.64**	-0.52*	-0.50*
Non-Hispanic Multiracial	0.35**	0.27*	0.22	0.42*	0.31	0.26	0.20	0.17	0.15
Heterosexual	-0.16*	-0.16*	-0.14*	-0.22*	-0.20*	-0.19*	-0.10	-0.11	-0.10
Number of Minor Dependents	0.04	0.07*	0.09**	-0.02	0.02	0.04	0.20**	0.22***	0.22***
<i>Transition Stage Covariates</i>									
Full-Time Transgender		0.67***	0.62***		0.67***	0.61***		0.68***	0.65***
Began Transition as Adult		-0.19**	-0.21**		-0.38***	-0.39***		0.04	0.03
Visual Conformity		-0.13***	-0.12***		-0.15*	-0.12***		-0.07	-0.08*

	Full Sample			Transwomen			Transmen		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Out at Work		0.18**	0.19***		0.16*	0.17*		0.26**	0.28**
Medical Transition		0.36***	0.38***		0.42***	0.45***		0.10	0.12
<i>Economic Resources</i>									
Income			-0.05***			-0.06***			-0.04**
Health Insurance Coverage			-0.46***			-0.41***			-0.50***
Constant	-0.83***	-0.91***	-0.31	-0.69***	-0.63**	-0.09	-0.94***	-1.34***	-0.70*
N		4286			2649			1637	

p<0.001,

**
p<0.01,

*
p<0.05 (two-tailed tests)

Table 3

Coefficients from OLS Regression Models Predicting Perceived Discrimination in Family

	Full Sample			Transwomen			Transmen		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
<i>Marital Status (ref=Married)</i>									
Never Married	0.08**	0.06*	0.05	0.08*	0.04	0.04	0.07	0.09*	0.08
Cohabiting	0.14***	0.11***	0.11***	0.27***	0.21***	0.20***	0.06	0.08*	0.06
Previously Married	0.66***	0.62***	0.61***	0.67***	0.61***	0.60***	0.53***	0.54***	0.53***
<i>Socio-Demographic Variables</i>									
Age	0.01***	0.01***	0.01***	0.01***	0.01***	0.01***	0.00	0.00	0.00
Education(ref=College)									
< High School	0.04	0.08	0.07	0.04	0.10	0.10	-0.06	-0.05	-0.05
High School	0.07	0.10**	0.09*	0.05	0.09	0.08	0.05	0.07	0.06
Some College	0.05**	0.06**	0.06*	0.07*	0.08*	0.07*	-0.01	0.00	-0.00
Advanced Degree	0.10***	0.10***	0.10***	0.14***	0.13**	0.13**	0.08*	0.08*	0.09*
Employed	0.02	0.02	0.03	0.01	0.03	0.03	0.05	0.04	0.05
<i>Race/Ethnicity (ref=Non-Hispanic White)</i>									
Non-Hispanic Black	-0.02	-0.03	-0.04	0.00	-0.03	-0.04	-0.05	-0.05	-0.05
Hispanic	0.00	-0.02	-0.03	0.03	-0.03	-0.03	-0.02	-0.02	-0.02
Non-Hispanic Native American	0.09*	0.07	0.07	0.08	0.06	0.06	0.10	0.09	0.08
Non-Hispanic Asian	-0.14*	-0.12*	-0.12*	-0.21*	-0.19*	-0.19*	-0.06	-0.04	-0.04
Non-Hispanic Multiracial	0.10*	0.08	0.08	0.17*	0.16*	0.16*	0.02	0.01	0.01
Heterosexual	-0.07***	-0.09***	-0.09***	-0.09**	-0.10**	-0.10**	-0.00	-0.02	-0.02
Number of Minor Dependents	0.10***	0.11***	0.11***	0.10***	0.11***	0.11***	0.10***	0.10***	0.10***
<i>Transition Stage Variables</i>									
Full-Time Transgender		0.16***	0.16***		0.21***	0.21***		0.08*	0.07*
Began Transition as Adult		-0.00	-0.00		-0.02	-0.02		0.01	0.01
Visual Conformity		-0.01	-0.01		-0.01	-0.00		0.01	0.01
Out to Family		-0.02	-0.02		-0.01	-0.01		-0.02	-0.02

	Full Sample			Transwomen			Transmen		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Medical Transition		0.11 ***	0.11 ***		0.12 **	0.23 **		0.05	0.05
<i>Economic Resources</i>									
Income			-0.00			-0.00			-0.01
Health Insurance Coverage			-0.05 *			-0.03			-0.04
Constant	-0.84 ***	-0.98 ***	-0.93 ***	-0.81 ***	-0.98 ***	-0.44 ***	-0.69 ***	-0.82 ***	-0.76 ***
N		4286			2649			1637	
***	p<0.001,								
**	p<0.01,								
*	p<0.05 (two-tailed tests)								

Table 4
Coefficients from OLS Regression Models Predicting Perceived Discrimination in Health Care

	Full Sample			Transwomen			Transmen		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
<i>Marital Status (ref=Married)</i>									
Never Married	0.03	0.01	-0.06	0.05	0.01	-0.05	-0.05	-0.01	-0.07
Cohabiting	0.12 **	0.08 *	0.03	0.17 **	0.09	0.04	-0.03	0.01	-0.03
Previously Married	0.06	0.00	-0.05	0.09	0.01	-0.03	0.17	0.21	0.14
<i>Socio-Demographic Covariates</i>									
Age	-0.01 ***	-0.01 ***	-0.01 ***	-0.01 ***	-0.01 ***	-0.01 ***	-0.01 ***	-0.01 ***	-0.01 ***
Education(ref=College)									
< High School	-0.24 **	-0.19 *	-0.23 **	-0.03	0.01	-0.04	-0.52 ***	-0.46 ***	-0.46 ***
High School	-0.16 **	-0.11 *	-0.14 **	-0.03	0.03	-0.01	-0.26 **	-0.21 *	-0.23 *
Some College	0.02	0.03	0.00	0.13 ***	0.13 ***	0.10	-0.08	-0.06	-0.08
Advanced Degree	0.20 ***	0.18 ***	0.21 ***	0.18 ***	0.18 ***	0.21 ***	0.21 ***	0.19 ***	0.21 ***
Employed	-0.14 ***	-0.14 ***	-0.09 **	-0.17 ***	-0.15 ***	-0.09 *	-0.11 *	-0.14 **	-0.12 *
<i>Race/Ethnicity (ref=Non-Hispanic White)</i>									
Non-Hispanic Black	0.04	0.01	0.00	0.06	-0.03	-0.04	-0.02	0.03	0.02
Hispanic	0.11	0.05	0.05	0.10	0.01	0.01	0.08	0.06	0.06
Non-Hispanic Native American	0.44 ***	0.40 ***	0.38 ***	0.33 ***	0.30 ***	0.28 ***	0.56 ***	0.52 ***	0.49 ***
Non-Hispanic Asian	-0.18 *	-0.13	-0.13	-0.20 *	-0.17	-0.16	-0.12	-0.04	-0.04
Non-Hispanic Multiracial	0.30 ***	0.27 ***	0.25 ***	0.29 ***	0.25 **	0.23 **	0.32 **	0.28 **	0.26 **
Heterosexual	-0.04	-0.06 *	-0.06	-0.01	-0.01	-0.01	-0.12 *	-0.18 ***	-0.17 ***
Number of Minor Dependents	0.02	0.03	0.04 *	0.00	0.02	0.03	0.11 ***	0.12 ***	0.13 ***
<i>Transition Stage Variables</i>									
Full-Time Transgender		0.25 ***	0.22 ***		0.20 ***	0.18 ***		0.27 ***	0.25 ***
Began Transition as Adult		-0.14 ***	-0.14 ***		0.45 ***	-0.19 ***		-0.06	-0.07
Visual Conformity		-0.03 *	-0.02 *		-0.05 **	-0.04 *		-0.01	-0.01

	Full Sample			Transwomen			Transmen		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Out/Visual Non-Conformity in Medical Settings		-0.05	-0.05		-0.01	-0.02		-0.12 *	-0.12 *
Medical Transition		0.29 ***	0.30 ***		0.33 ***	0.35 ***		0.28 ***	0.29 ***
<i>Economic Resources</i>									
Income			-0.03 ***			-0.03 ***			-0.03 ***
Health Insurance Coverage			-0.01			-0.03			-0.01
Constant	0.11	-0.01	0.13	-0.13	-0.20	-0.07	0.21	-0.02	0.12
N		4286			2649			1637	

*** p<0.001,

** p<0.01,

* p<0.05 (two-tailed tests)

Table 5
Coefficients from OLS Regression Models Predicting Perceived Discrimination in Public Accommodations

	Full Sample			Transwomen			Transmen		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
<i>Marital Status (ref=Married)</i>									
Never Married	0.10 **	0.05	0.02	0.14 **	0.10 *	0.08	0.03	-0.05	-0.10
Cohabiting	0.24 ***	0.19 ***	0.16 ***	0.25 ***	0.22 ***	0.20 ***	0.19 **	0.11	0.07
Previously Married	0.15 ***	0.09 *	0.06	0.17 ***	0.12 **	0.10 *	0.07	0.01	-0.05
<i>Socio-Demographic Covariates</i>									
Age	-0.01 ***	-0.01 ***	-0.01 ***	-0.01 ***	-0.01 ***	-0.01 ***	-0.01 ***	-0.01 ***	-0.01 ***
Education(ref=College)									
< High School	-0.29 ***	-0.29 ***	-0.31 ***	-0.21 *	-0.20 *	-0.23 *	-0.46 ***	-0.42 **	-0.40 **
High School	-0.16 **	-0.17 ***	-0.19 ***	-0.09	-0.09	-0.10	-0.30 **	-0.30 ***	-0.32 ***
Some College	-0.07 *	-0.08 **	-0.10 **	0.02	-0.01	-0.02	-0.18 ***	-0.16 ***	-0.18 ***
Advanced Degree	0.10 **	0.12 **	0.13 ***	0.13 *	0.16 ***	0.17 ***	0.07	0.06	0.08
Employed	-0.06 *	-0.04	-0.01	-0.08 *	-0.04	-0.02	-0.03	-0.02	0.01
<i>Race/Ethnicity (ref=Non-Hispanic White)</i>									
Non-Hispanic Black	0.09	0.03	0.03	0.19 *	0.10	0.11	-0.09	-0.09	-0.10
Hispanic	0.13 *	0.06	0.06	0.14	0.02	0.02	0.11	0.09	0.09
Non-Hispanic Native American	0.28 ***	0.27 ***	0.26 ***	0.21 **	0.18 **	0.18 *	0.38 ***	0.37 ***	0.35 ***
Non-Hispanic Asian	0.03	0.09	0.09	0.16	0.21 *	0.21 *	-0.16	-0.11	-0.11
Non-Hispanic Multiracial	0.14 *	0.09	0.09	0.13	0.07	0.06	0.18	0.15	0.15
Heterosexual	-0.18 ***	-0.12 ***	-0.11 ***	-0.07	-0.03	-0.03	-0.33 ***	-0.25 ***	-0.25 ***
Number of Minor Dependents	0.01	0.01	0.02	0.00	0.01	0.02	0.05	0.04	0.04
<i>Transition Stage Variables</i>									
Full-Time Transgender		0.17 ***	0.16 ***		0.18 ***	0.17 ***		0.13 *	0.11
Began Transition as Adult		-0.15 ***	-0.15 ***		-0.19 ***	-0.20 ***		-0.09	-0.10
Visual Conformity		-0.18 ***	-0.18 ***		-0.17 ***	-0.17 ***		-0.18 ***	-0.18 ***

	Full Sample			Transwomen			Transmen		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Outness		0.00	0.00		0.00	0.00		0.00	0.00
Medical Transition		0.13 ***	0.14 ***		0.13 ***	0.13 **		0.13 *	0.13 *
<i>Economic Resources</i>									
Income			-0.01 **			-0.01			-0.02 **
Health Insurance Coverage			-0.08 *			-0.07			-0.10
Constant	0.00	0.57 ***	0.69 ***	-0.09	0.44 ***	0.52 ***	0.15	0.71 ***	0.90 ***
N		4286			2649			1637	

p<0.001,

**
p<0.01,

*
p<0.05 (two-tailed tests)