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The Roles of Gender Affirmation and Discrimination in the Resilience of Transgender Individuals in the US

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Abstract

Transgender individuals face severe stigma-driven health inequities structurally, institutionally, and interpersonally, yielding poor individual-level outcomes. Gender affirmation, or being recognized based on one's gender identity, expression, and/or role, may be considered a manifestation of resilience. To provide intervention and policy guidelines, we examined latent constructs representative of gender affirmation (legal documentation changes, transition-related medical procedures, familial support) and discrimination (unequal treatment, harassment, and attacks), and tested their impact on mental, physical, and behavioral health outcomes among 17,188 binary-identified transgender participants in the 2015 US Transgender Survey. Confirmatory factor analyses revealed high standardized factor loadings for both latent variables, on which we regressed outcomes using structural equation modeling. Fit indices suggested good model fit. Affirmation was associated with lower odds of suicidal ideation and psychological distress, and higher odds of substance use, and past-year healthcare use and HIV-testing. Discrimination was associated with higher odds of suicidal ideation, psychological distress, substance use, and past-year HIV-testing. Affirmation and discrimination interaction analyses showed lower odds of past-year suicidal ideation, with affirmation having a significant moderating protective effect against discrimination. Gender affirmation is paramount in upholding transgender health. Clarification of affirmation procedures, and increases in its accessibility, equitably across racial/ethnic groups, should become a priority, from policy to the family unit. The impact of discrimination demands continued advocacy via education and policy.

Keywords

Discrimination; gender affirmation; mental and physical health; transgender

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Disclosure statement

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Data availability statement

The data were drawn from the 2015 United States Transgender Survey (USTS), conducted by the National Center for Transgender Equality (NCTE), who granted the authors use of confidential data for the current analyses and are the owners of these data. To find out more about the U.S. Transgender Survey, visit http://www.ustranssurvey.org/.

Introduction

The health of transgender individuals globally has become a public health priority,[1–5] given the deep stigma- and discrimination-driven inequities these groups face structurally (e.g., insufficient or nonexistent rights and protections),[6,7] institutionally (e.g., inadequate health resources and service provision, low educational, and professional opportunities),[8] and interpersonally (victimization, rejection, isolation).[4,9] Intersecting multilevel negative forces gravely impact individual-level outcomes,[10] yielding severe mental health issues (e.g., depression, psychological distress, suicidality),[11–14] internalized stigma (e.g., poor self-worth),[15,16] and negative behavioral consequences (e.g., substance use, avoidance of healthcare, sexual risk, and poor outcomes on the HIV continuum).[12,17] These represent socially determined explanatory factors behind the high morbidity and mortality recorded to date among diverse transgender groups, globally [3,10,18–21]

At the individual level, transgender persons experience striking health inequities in HIV, mental health, and drug and alcohol use compared to cisgender individuals.[12,18,22–25] HIV and STI rates are highest among transgender women, especially of color.[3,22–29] Psychosocial health inequities include drug use,[9,11,30–34] often as a coping mechanism against and a consequence of stigma and discrimination,[10,31] depression,[13,14,35,36] anxiety,[13,37] attempted suicide[9,11,14,38,39] and violence,[5,11,14,20,40] including intimate partner violence,[10,19,29,40] and sexual assault.[9,11,14,41]

Health inequities are driven at the institutional level by stigma in healthcare. Transgender persons' presenting concerns are unique to a healthcare context[42,43] organized around binary sex categories assigned at birth,[44] imposing unique barriers.[11,12,29,45,46] Health insurance often limits gender affirmation procedure coverage (surgery) and sex-specific procedures (prostate tests for transgender women).[10,47] Provider competence is a common barrier to health.[11,43,45,48–52] Trans-specific training is rare,[11,53] affecting preventive and emergency care, mental health, social services, and gender-related care.[12,43,45,47–52,54–61] Anticipated stigma leads many transgender persons to postpone or forgo care,[11,31,38,62–66] yielding less preventive screenings.3,11,25,26,29,67

Nevertheless, coping skills and resilience have led to improved health and life quality for transgender persons to some degree.[68] Shifting the dominant discourse from adversity toward a strengths-based approach seems warranted in supporting transgender persons' resilience. Conceptually diverse across disciplines,[69] resilience is defined as reaching positive outcomes despite adversity; it is dynamic based on context and heterogeneous based on manifestation.[69–71] Scholars have begun highlighting the significant potential for resilience within transgender groups,[72] as they become more visible and supported from outside and inside their communities.[12,68] The socioecological model,[73,74] which posits that progression through the life course may be mapped on several levels (structural/institutional, interpersonal, and individual),[75] is instrumental in accounting for multiple forms of resilience a transgender person may demonstrate.

At a structural/institutional level, resilience may be reached by advocating for and finding resources for legal documentation changes and supportive healthcare. Support for resilience may come from healthcare system reconfiguration to provide transgender affirming care,[76–78] in response to overwhelming evidence of stigma and discrimination within most existing healthcare settings.[11,12,55,58,65,76] At an interpersonal level, communities and social networks, and therefore social connectedness and sense of belonging, have been associated with increased coping skills and better mental health.[13,79,80] Various types of social support, from families to work settings, transgender peers, ballroom communities, and online and virtual reality communities, have led to improved well-being, mental health, and resilience.[75,81–88]

Finally, at the individual level, a form of resilience unique to transgender individuals is gender affirmation, the process by which individuals feel recognized and valued in their gender.[46,89,90] Gender affirmation has been theorized to encapsulate four related domains[91]: 1) psychological aspects,[89] 2) social acceptance,[46,90] 3) legal changes for identification documentation, and 4) medical intervention.[76] Steps to gender affirmation[10,46] vary across persons qualitatively (e.g., undergoing select medical procedures or none at all) and by age (from pre-puberty to late adulthood).[78] The entire spectrum of gender affirmation is not needed or desired uniformly across individuals. In fact, each path to gender affirmation and steps taken toward affirmation are different, based on individual needs.[89,90]

Within the premise of a resilience-based gender affirmation paradigm, uncovering what particular aspects of gender affirmation may be associated with positive health outcomes would provide guidance on modifiable aspects to support transgender health and well-being. Indeed, affirmation across social, psychological, and medical realms among transgender women is associated with lower depression and higher self-esteem.[89] Guidance on gender affirmation would apply to families (for social support and acceptance), practitioners (for affirming care), and policy (for making name and gender marker modification processes accessible and transparent).

The current study examined data captured by the 2015 United States Transgender Survey (USTS) to investigate whether having attained certain aspects of gender affirmation (e.g., legal gender and name changes, having undergone certain medical gender-affirming procedures) would predict improved health. As gender affirmation may spam across multiple domains (e.g., social, medical, legal), examining their individual impact on health would provide a partial understanding of their benefits. Therefore, we set out to 1) create a latent gender affirmation variable based on legal documentation, surgery, hormonal therapy, and familial support and test its robustness, 2) test whether this latent affirmation construct is associated with psychological (i.e., suicidal ideation, psychological distress), and behavioral (substance use, HIV-testing, recent medical care) health outcomes, and 3) investigate whether gender affirmation may buffer against the negative impact of discrimination,[11,12] measured via a latent discrimination variable (inequitable treatment, verbal harassment, attacks) we constructed.

Methods

The USTS, led by the USTS team and the National Center for Transgender Equality (NCTE), is the largest survey ever conducted to document experiences of transgender individuals in the US. Questions cover a broad range of topics, from identity and demographics, to health and healthcare access, employment, education, housing, law enforcement, and public accommodations. A descriptions of the survey's development and dissemination may be found elsewhere.[12] The survey took approximately one hour to complete, was accessible on mobile devices, included respondents with disabilities, and was available in English and Spanish. Eligible participants were of age 18 or above and identified as transgender, genderqueer, nonbinary, and other identities on the transgender spectrum. The first page contained the informed consent. Data were collected in the summer of 2015, yielding a sample of 27,715 respondents residing in 50 states, the District of Columbia, American Samoa, Guam, Puerto Rico, and US military bases overseas. Ethical approval for data collection and analyses was provided by the Institutional Review Boards of University of California Los Angeles and Rutgers University, respectively.

Current study

The present analyses focused on a subset of the USTS questions/variables, guided by our scope to uncover indicators that may form a latent gender affirmation variable with impact on health. In selecting these, we first conducted a literature review on gender affirmation, resilience, and adversity among transgender individuals. Guided by this review, a list of aspects of gender affirmation and discrimination was identified by extensive examination of the USTS codebook. A similar process identified outcomes relevant to transgender individuals' physical and mental health hypothesized to be associated with the latent variables.

Gender affirmation latent variable

To reflect the multidimensional affirmation potential, we adopted the socioecological model[73] to map the components of the latent variables we aimed to construct and test. This framework may be instrumental in creating future guidelines for increased support for transgender people in their gender affirmation process in multiple areas of their lives. A latent gender affirmation variable consisted of three indicators: legal documentation, medical affirmation, and familial affirmation. As noted in the Limitations section, an individual-level affirmation indicator was not available in the dataset; therefore, we were unable to include one.

Legal documentation (structural-level affirmation)

We estimated legal documentation as a latent variable with two variables as indicators: legal ID gender affirmation and legal ID name affirmation. We assessed legal ID gender affirmation by recoding six categorical items into a single ordered categorical variable. One of these items inquired "which statement is most true," and the answer options included "all my IDs list the gender I prefer," "Some of my IDs list the gender I prefer," "none of the IDs list the gender I prefer." The other five items asked about specific forms of identification (e.g., birth certificate) and participants responded regarding the circumstances associated

with having or not having the ID on a scale with these options: “I do not have this ID,” “I changed my gender on this ID,” “I was denied a gender change,” “I’m in the process of a gender change,” “I’ve not tried but I want to,” and “I don’t want to change my name on this ID.” Participants who reported having their gender on all their IDs consistent with their preferences (e.g., not wanting or receiving any ID gender change; having all their IDs changed) were coded as “affirmed” (2), participants who reported their IDs were partially consistent with their preference were coded as “partially affirmed” (1), and participants who reported that none of their IDs were consistent with their preferences were coded as “not affirmed” (0). We conducted the same coding to create the legal ID name affirmation variable.

Medical affirmation (institutional-level affirmation)

We estimated medical affirmation as a latent variable with two variables as indicators: hormonal affirmation and surgical affirmation. We assessed hormonal affirmation by recoding four dichotomous items into an ordered categorical variable. These four items inquired about desire for and receipt of hormone treatment and puberty blockers. Two questions asked about desire: “have you ever wanted hormone treatment?” and “have you ever wanted puberty blockers?” Two additional questions asked about receipt: “have you ever had hormone treatment?” and “have you ever had puberty blockers.” Response scales for these four items were dichotomous yes/no scales. Participants who were consistent across all four items (e.g., no desire for hormones nor puberty blockers and did not receive either; desire for hormones and puberty blocks and received both) were coded as “affirmed” (2), participants who were consistent on only some of the four items (e.g., desire for both hormones and puberty blocks, but only received hormones) were coded as “partially affirmed” (1), and participants who were not consistent on any of the four items (e.g., desire for both hormones and puberty, but did not receive either) were coded as “not affirmed” (0).

We assessed surgical affirmation by recoding fourteen dichotomous items into an ordered categorical variable. These items inquired about desire for and receipt of specific forms of surgical transition (e.g., “top/chest surgery,” “vaginoplasty/labiaplasty/SRS”). Item administration depended on the participants’ sex assigned at birth. The response scale included these options: “Have had it,” “Want this someday”, “Not sure if I want this,” and “Do not want this.” Participants who responded “Have had it” or “Do not want this” to all items were coded as “affirmed” (2). Participants who responded that they had had surgery, but that they would like or were unsure about additional surgeries, were coded as “partially affirmed” (1). Those who indicated that they had not had any of their desired surgery were coded as “not affirmed” (0).

Familial affirmation (interpersonal-level affirmation)

Family support is a composite variable that summed responses (Yes/No) across eight questions pertaining to different types of support one may have received from their family, such as follows: “Did any of your immediate family members you grew up with [mother, father, sisters, brothers, etc.] do any of these things to support you?” with some examples of support being “did research to learn how to support you,” or “helped you change your name/gender on ID docs.”

Discrimination latent variable

We selected three variables to include in the latent discrimination construct, indicative of institutional and interpersonal discrimination: past-year 1) denial of equitable treatment, 2) verbal harassment, and 3) physical attack targeting trans identity, all coded dichotomously (Yes/No).

Outcome variables (individual level)

HIV-related—Participants were asked whether they had been tested for HIV in the past year (Yes/No).

Mental and general health—We included the six-item Kessler Distress Scale ($\alpha = 0.89$), [92] which asked about the frequency of experiencing various symptoms in the previous 30 days (e.g., "so sad nothing could cheer you up," "hopeless"), with response options between 0 *none of the time* and 4 *all of the time*. This scale was recoded dichotomously, with a score of ≥13 indicating distress.[93] Participants were also asked about suicidal ideation in the past 12 months (Yes/No). Additionally, participants were asked to reflect on their "general health" based on Likert-type response options between 1 = poor and 5 = excellent.

Healthcare engagement—Participants indicated having seen a healthcare provider in the past 12 months (Yes/No).

Alcohol and substance use—Participants were asked whether they currently engaged in binge drinking and/or illicit substance use (Yes/No), hereafter referred to as "substance use."

Data analysis

Prior to testing the hypothesized model, we ran separate CFAs on the affirmation and discrimination latent variables described above within M*plus*.[94]

We then tested the primary hypotheses using structural equation modeling. In this model, we tested main effects of the latent affirmation and discrimination variables on the health outcomes while adjusting for the effects of age, relationship status, education, sexual orientation, race, and immigration status on the independent and dependent variables. We specified all dependent variables as categorical. We clustered analyses by US census region (i.e., Northeast, Midwest, South, West) using the CLUSTER command to adjust for regional variations in study variables. We assessed model fit using accepted standard fit indices.[95] We estimated all models with a variance-adjusted weighted least squares (WLSMV) estimator with a probit link in M*plus* 8.2.[94]

To examine whether the affirmation moderated the associations between discrimination and the dependent variables, we used the XWITH command to estimate latent variable interactions between the affirmation and discrimination variables. We regressed the dependent variables on these latent variable interactions in a separate model from the main effect model. To aid in model convergance, we specified medical and legal affirmation as observed variables in this interaction model. Regarding missing data, rates of missing data

were low, ranging from 0% to 2.5%. In the case of missing data, we used the M*plus* 8.2 default which uses a full information maximum-likelihood estimator to use all available data to estimate the model.[94]

Results

Table 1 presents the sample demographics by the five variables of the latent affirmation variable. Of the 17,188 participants, the majority (54%) identified as transgender women and white (83%), had at least some college education (47%), were employed (67%), identified as lesbian, gay or bisexual (71%). Significant associations were observed among sample characteristics and most gender affirmation components (Table 1). Table 2 displays the descriptive statistics and bivariate correlations for each variable included in our final model.

Regarding the CFA specification of latent variables, the affirmation CFA revealed that a three-indicator one-factor model fit the data well, $\chi^2(4) = 18.89$, $p = .00$, CFI = 1.00, TLI = 1.00, RMSEA = .02, and standardized factor loadings ranged from .86 (legal affirmation) to .96 (medical affirmation), with family support automatically constrained to 1.00. We retained this model although the p value for the χ^2 was significant given the strong values for the other fit indices[95] and the tendency for χ^2 values to be inflated with large samples. The latent medical and legal affirmation variables had factor loadings ranging from .71 (surgical affirmation) to .82 (hormonal affirmation) for medical affirmation and from 1.00 (ID gender affirmation for gender) to .87 (ID name affirmation) for legal affirmation. The discrimination CFA was a just-identified model (three-indicator model); thus, we report factor loadings and not model fit indices. For the discrimination CFA, standardized factor loadings were high and ranged from .70 to .91.

Figure 1 depicts the structural equation model in which we regressed outcomes on the affirmation and discrimination latent variables. Fit indices suggested good model fit: $\chi^2(140)$ 463.46, $p = .00$; CFI = .97, TLI = .94, RMSEA = .01. The affirmation latent variable was associated with lower odds of suicidal ideation ($\beta = –.22$, S.E. = .02, $p < .001$) and psychological distress ($\beta = –.30$, S.E. = .01, $p < .001$), and higher odds of substance use ($\beta = .14$, S.E. = .003, $p < .001$), past-year healthcare use ($\beta = .51$, S.E. = .01, $p < .001$), better self-rated general health ($\beta = .23$, S.E. = .02, $p < .001$), and past-year HIV-testing ($\beta = .28$, S.E. = .01, $p < .001$). The discrimination latent variable was negatively associated with self-rated general health ($\beta = –.17$, S.E. = .01, $p < .001$) and associated with higher odds of substance use ($\beta = .19$, S.E. = .02, $p < .001$), suicidal ideation ($\beta = .32$, S.E. = .01, $p < .001$), psychological distress ($\beta = .28$, S.E. = .01, $p < .001$), and HIV-testing ($\beta = .25$, S.E. = .01, $p < .001$). Discrimination was not significantly associated with past-year healthcare use ($\beta = .03$, S.E. = .02, $p = .08$). Affirmation and discrimination were not significantly correlated ($r = .004$, S.E. = .01, $p = .61$).

Regarding model covariates, older age ($\beta = .37$, S.E. = .01, $p < .001$), higher education ($\beta = .29$, S.E. = .01, $p < .001$), being in a couple ($\beta = .03$, S.E. = .004, $p < .001$), and having citizenship ($\beta = .06$, S.E. = .01, $p < .001$) or permanent resident status ($\beta = .05$, S.E. = .01, $p < .001$) were more likely than people of other immigration statuses to report affirmation. LGBQ participants were more likely than asexual ($\beta = .06$, S.E. = .005, $p < .001$) and less

likely that heterosexual (β = .08, S.E. = .003, p < .001) to report affirmation. Native American (β = –.02, S.E. = .003, p < .05) participants reported minimally less affirmation than White participants.

With regard to discrimination, older age (β = –.08, S.E. = .01, p < .001), higher education (β = –.07, S.E. = .01, p < .001), and having citizenship compared to other immigration statuses (β = –.07, S.E. = .02, p < .001) were negatively associated with discrimination. LGBQ participants were more likely than asexual (β = .04, S.E. = .01, p < .001) and heterosexual (β = .05, S.E. = .01, p < .001) participants to report discrimination. Native American (β = .07, S.E. = .002, p < .001) and biracial persons (β = .03, S.E. = .01, p < .01) reported more discrimination than White participants.

Interaction analyses showed that the interaction between affirmation and discrimination was associated with higher odds of substance use (b = .08, S.E. = .03, p < .01) and past-year HIV-testing (b = .14, S.E. = .03, p < .001), and lower odds of suicidal ideation (b = –.10, S.E. = .04, p < .01). These interactions indicate that the positive association between discrimination and substance use is stronger at higher levels of affirmation, the positive association between discrimination and past-year HIV-testing is stronger at higher levels of affirmation, and the positive association between discrimination and suicidal ideation is weaker at higher levels of affirmation. The interaction term was not significantly associated with any other outcomes.

Discussion

These analyses are the first, to our knowledge, to create and test the impact of a latent gender affirmation construct on health, to demonstrate the clear benefits of supporting transgender persons' affirmation processes. Our examination of the 2015 USTS data, the largest survey of persons on the transgender continuum in the US,[12] revealed several distinct yet related constructs: gender and name congruence on legal documents, having undergone surgical transition, having received hormonal treatment, and having received familial support toward affirmation. Gender affirmation on a structural and interpersonal level was significantly associated with outcomes on the individual level: higher odds of past-year healthcare engagement and HIV-testing, and lower odds of past-year suicidal ideation and psychological distress.

Critically, affirmation mitigated the association between discrimination and past-year suicidal ideation, an outcome implicated in one of the leading causes of death for transgender communities: suicide.[9,12] The protective role of affirmation in the relationship between discrimination and past-year suicidal ideation has enormous implications for policy and practices facilitative of affirmation processes. By not removing the complex barriers to gender affirmation, we are contributing toward loss of lives, unjustifiably. Our results suggest that facilitating gender affirmation has a broad and potentially highly impactful effect on transgender health. To foster mechanisms for change, the discussion section is structured around recommendations for action for policy makers, advocates, clinicians, families, and allied entities.

First, structurally, it is imperative to legalize name and gender marker changes across all states, across all documents of identification. Next, making legal and medical affirmation processes clear, accessible, and affordable is essential. One way to pave the way to most of these goals would be to follow the suit of Argentina's 2012 Gender Identity Law.[96] Among other stipulations supportive of transgender individuals' rights, the law eliminated the need to obtain several types of documentation (e.g., proving having undergone surgery or hormonal treatment, or mental health services) to legally change one's name and/or gender. Gender-affirming medical procedures are also covered under the country's Compulsory Medical Plan. Furthermore, as affirmation efforts may involve risk-taking when resources are limited (e.g., increased HIV risk for transgender women, especially of color, due to power dynamics with cisgender male partners, sex work for survival),[46] there is urgency in creating accessible systems for legal document changes and medical transition. Informational resources in multiple languages may be created at various levels of accessibility, from legal advocates to social support professionals for families and individuals of all ages seeking affirmation. Having these systems become normative would likely promote transgender persons' psychological, behavioral, sexual well-being.

Second, institutionally, our findings extend two decades of research documenting the essential need for affirming and accessible healthcare for transgender persons.[7,58,65,66,76,77,97] We found that gender affirmation is associated with better self-reported health and past-year healthcare visits. Conversely, and consistent with previous work,[8,21,62] our latent discrimination construct was associated with significantly higher likelihood of current substance use, past-year suicidal ideation, and psychological distress. Some of the most thoroughly documented and impactful manifestations of discrimination are nested within the healthcare system, which is uniquely meaningful for transgender persons given medical gender-affirming intervention and mental health treatment many of them seek. We thus add our voice to the demand for wide-canvassing of transgender competency training, consultation, and support programs, for all healthcare providers and staff, while in training and thereafter. This is a critical action step still awaiting systemic implementation.[77,97,98]

We also found that reports of higher discrimination were associated with past-year HIV-testing. Discrimination may have been experienced while testing, likely reflecting discrimination in healthcare.[11,12,47,65,66] Additionally, as transgender individuals are often economically marginalized due to employment discrimination and barriers to educational and vocational opportunities,[11,12] they are often forced to into sex work for survival purposes and to afford gender-affirming medical intervention.[46] As sex work increases vulnerability to discrimination, violence, and HIV,[99,100] more frequent HIV-testing might be sought for these reasons. The results also indicate that affirmation moderated the association between discrimination and HIV-testing, such that, at higher levels of affirmation, there was a stronger positive association between discrimination and HIV-testing. It is possible that those who are affirmed, especially if they had sought hormonal treatment or surgical intervention, had also engaged more frequently with the healthcare system. HIV testing is recommended for groups perceived to be at high risk for HIV contraction, while healthcare engagement with most facilities continues to increase one's chances for being mistreated. These associations clearly warrant further investigation, especially given that HIV testing

and healthcare engagement are desirable outcomes, however, minimizing encounters of discrimination while engaging in healthcare is essential.

Substance use has been posited to serve as a coping strategy against societal stigma and discrimination.[17,30,33,101,102] Additionally, transgender persons often find social support in their own networks and those of lesbian, gay, or bisexual individuals, where high rates of stigma-driven substance use have been documented.[102,103] We found that those affirmed and with high experiences of discrimination were more likely to report current substance use, although these associations were weak, raising the question of their clinical significance. However, our findings signal that trans-specific substance use treatment programing continues to be a much-needed structural point of intervention,[101] as this programing is rare and not significantly efficacious.[101] It is vital to create treatment programs that account for transgender persons' unique syndemics, acknowledge the relationship between gender affirmation and substance use, and ensure transgender-specific competency of staff (e.g., often best delivered by peers).[77,101] Lastly, alcohol and substance use screening and referral to adequate treatment may be bundled with gender-affirming care visits (e.g., hormonal treatment, mental health support, surgical consultation) and are likely to be acceptable, feasible, and efficient in identifying treatment substance use needs.

On an interpersonal level, confirming previous literature, families who have transgender members will benefit from education and support to understand the gender affirmation process and provide support.[104–106] Our findings demonstrate that trans-affirming families have a positive impact on health. Importantly, we found no evidence for racial differences in familial gender affirmation. Therefore, family-focused intervention efforts can seek to foster aspects of support and resilience, rather than focusing on aspects of unsupportiveness and weaknesses among families.

Of note, affirmation was not associated with discrimination in this analysis. This suggests that experiences and systems of affirmation do not negate experiences and systems of discrimination. Indeed, in the present analyses, affirmation did not moderate the harmful effects of discrimination on general health and psychological distress. As such, our imperative as a society remains to advocate against discriminatory laws, healthcare practices, and other structural oppression, while promoting systems of gender affirmation.

Several limitations are noted. We were limited in our ability to construct a comprehensive latent affirmation variable as we were not able to include the fourth component of gender affirmation, namely the individual aspects.[91] We deemed that the dataset does not contain an adequate construct/variable that would represent the psychological aspect of affirmation. Additional research is needed to examine models in which all four components are included. Further, although the USTS intended to recruit a sample that was as representative as possible of transgender people in the US, respondents were not randomly sampled and were mostly white, limiting generalizability. More research is needed to examine the intersections of different forms of discrimination and affirmation for marginalized transgender communities in the US. Black transgender communities face higher levels of murder than other race/ethnicities.[107] Moreover, gender affirmation is difficult to attain by persons of color who face racism and, as a result, fewer socioeconomic resources and opportunities.

[10,46] Continued mobilizing efforts by coalitions of legal, advocacy, public health, social services, academics, and policy entities are urgently needed to further facilitate gender affirmation for people of color, for whom these complex processes are even more onerous than for white transgender persons. Additionally, this is a cross-sectional analysis which limits our ability to make inferential causal statements. Cohort studies would enrich our understanding of how gender affirmation may lead to improved mental health or healthcare engagement over time. Findings are also a partial representation of gender affirmation among individuals on the transgender spectrum, given our focus on gender-binary identified persons, pointing to the need for future research on unique affirmation needs of gender nonbinary groups, especially given their pronounced health inequities.[12]

Conclusions

Our findings align with emerging studies that define affirmation, its importance for well-being, and how by being affirmed transgender persons demonstrate resilience.[46,89,108] We extend previous research by furthering a strengths-based framework that recognizes transgender persons' resourcefulness and potential to thrive as they are affirmed. Our findings suggest that undertaking various steps leading to gender affirmation is positively associated with improved health. Efforts to clarify steps to gender affirmation, as well as make it accessible to all, especially transgender people of color, should be prioritized, from policy to family levels. Resource allocation to facilitate more affordable and less risky affirmation processes for transgender people of color is essential. Additionally, it is important to recognize that each individual will present various types/degrees of need for intervention for affirmation, while perceptions of personhood are subjective, necessitating tailored support. Lastly, the stark impact of discrimination on well-being remains evident, demanding our continued efforts, on all levels, to diminish its occurrence via education and policy.

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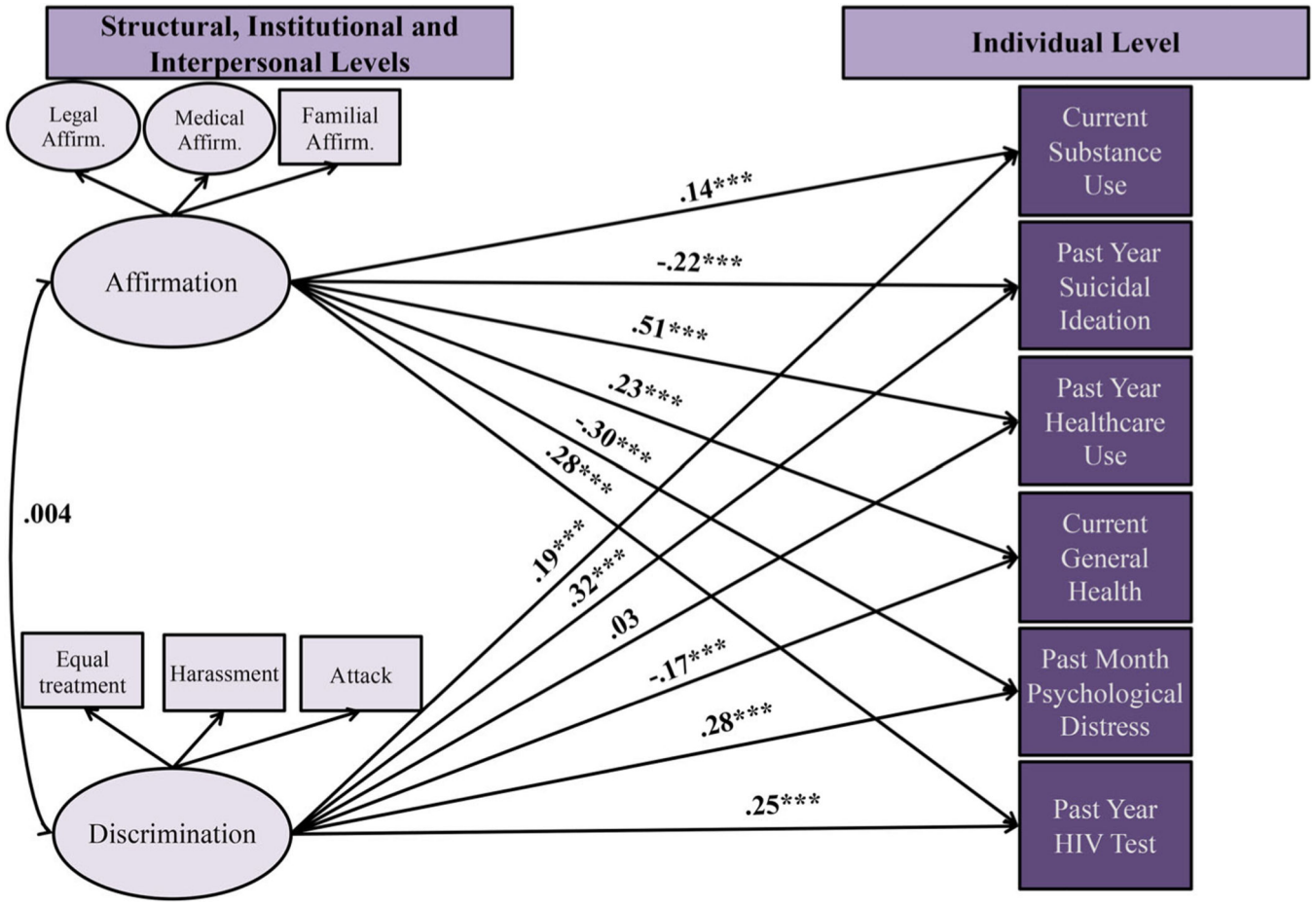

Figure 1. Structural equation model examining associations from gender identity affirmation and discrimination on psychological and behavioral health outcomes.

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

All outcomes are estimated as categorical outcomes. This model is adjusted for age, education, relationship status, sexual identity, racial/ethnic identity, and immigration status. Observations were clustered by US region.

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Table 1.

Sample characteristics by gender identity affirmation indicators.

		Gender listed on IDs			Name listed on ID			Received surgeries			Received hormones			Family Support
	Total N (%)	**Not consistent**	**Some consistent**	**All consistent**	**Not consistent**	**Some consistent**	**All consistent**	**Not consistent**	**Some consistent**	**All consistent**	**Not consistent**	**Some consistent**	**All consistent**	***N* (mean, SD)**
Gender		$\chi^2(2) = 16.32$, $p \leq .001$			$\chi^2(2) = 17.76$, $p \leq .001$			$\chi^2(2) = 381.46$, $p \leq .001$			$\chi^2(2) = 178.66$, $p \leq .001$			$t(14,736) = -11.25$, $p \leq .001$
Trans women	9,238 (54)	5,206 (53)	2,616 (55)	1,383 (57)	4,412 (55)	2,283 (51)	2,529 (55)	4,273 (47)	4,322 (61)	551 (68)	2,380 (47)	1,239 (64)	5,521 (55)	7,686 (M = 3.1, SD = 1.86)
Trans men	7,950 (46)	4,709 (48)	2,173 (45)	1,055 (43)	3,644 (45)	2,190 (49)	2,107 (45)	4,859 (53)	2,803 (32)	258 (32)	2,674 (53)	696 (36)	4,517 (45)	7,052 (M = 3.5, SD = 1.95)
Education		$\chi^2(6) = 1,341.33$, $p \leq .001$			$\chi^2(6) = 1,221.21$, $p \leq .001$			$\chi^2(6) = 2,021.97$, $p \leq .001$			$\chi^2(6) = 1,387.94$, $p \leq .001$			F (3,14,734) = 36.65, $p \leq .001$
Less than high school	525 (3)	430 (4)	58 (1)	35 (1)	374 (5)	61 (1)	88 (2)	418 (5)	93 (1)	10 (1)	295 (6)	56 (3)	166 (2)	435 (M = 3.1, SD = 1.99)
High school/GED	2,189 (13)	1,661 (17)	339 (7)	180 (7)	1,437 (18)	330 (7)	415 (9)	1,648 (18)	495 (7)	37 (5)	1,064 (21)	227 (12)	869 (9)	1,834 (M = 3.0, SD = 1.95)
Some college	7,844 (47)	5,070 (51)	1,956 (41)	800 (33)	4,162 (52)	1,914 (43)	1,760 (38)	4,905 (54)	2,693 (38)	212 (26)	2,644 (52)	993 (51)	4,136 (41)	6,685 (M = 3.2, SD = 1.93)
Bachelor's degree+	6,630 (39)	2,754 (28)	2,436 (51)	1,423 (59)	2,083 (26)	2,168 (49)	2,373 (51)	2,161 (24)	3,844 (54)	550 (68)	1,051 (21)	659 (34)	4,867 (49)	5,784 (M = 3.5, SD = 1.86)
Employment		$\chi^2(4) = 234.72$, $p \leq .001$			$\chi^2(4) = 265.13$, $p \leq .001$			$\chi^2(4) = 442.84$, $p \leq .001$			$\chi^2(4) = 419.04$, $p \leq .001$			F (2,14,658) = 22.58, $p \leq .001$
Employed	11,457 (67)	6,262 (64)	3,443 (72)	1,727 (71)	4,985 (62)	3,180 (71)	3,280 (71)	5,542 (61)	5,274 (74)	559 (70)	2,901 (58)	1,305 (68)	7,168 (72)	9,940 (M = 3.4, SD = 1.88)
Unemployed	2,111 (12)	1,521 (15)	416 (9)	169 (7)	1,316 (16)	419 (9)	374 (8)	1,518 (17)	538 (8)	47 (6)	964 (19)	255 (13)	872 (9)	1,778 (M = 3.2, SD = 1.99)

	Gender listed on IDs				Name listed on ID			Received surgeries			Received hormones			Family Support
	Total N (%)	**Not consistent**	**Some consistent**	**All consistent**	**Not consistent**	**Some consistent**	**All consistent**	**Not consistent**	**Some consistent**	**All consistent**	**Not consistent**	**Some consistent**	**All consistent**	***N* (mean, SD)**
Out of labor force	3,533 (21)	2,076 (21)	912 (19)	531 (22)	1,710 (21)	851 (19)	965 (21)	2,019 (22)	1,285 (18)	198 (25)	1,162 (23)	365 (19)	1,952 (20)	2,943 (M = 3.1, SD = 1.97)
Sexual Orientation		$\chi^2(6) = 325.16$, $p \leq .001$			$\chi^2(6) = 273.74$, $p \leq .001$			$\chi^2(6) = 180.07$, $p \leq .001$			$\chi^2(6) = 219.93$, $p \leq .001$			F (3,14,734) = 22.75, $p \leq .001$
Asexual	1,250 (7)	892 (9)	230 (5)	124 (5)	750 (9)	235 (5)	261 (6)	793 (9)	399 (6)	54 (7)	535 (11)	113 (6)	588 (6)	999 (M = 2.9, SD = 1.86)
LGB+	12,125 (71)	7,083 (71)	3,434 (72)	1,576 (65)	5,739 (71)	3,230 (72)	3,144 (68)	6,530 (72)	4,978 (70)	535 (66)	3,517 (70)	1,347 (70)	7,147 (71)	10,410 (M = 3.3, SD = 1.89)
Heterosexual	2,843 (17)	1,325 (13)	878 (18)	632 (26)	1,040 (13)	772 (17)	1,026 (22)	1,235 (14)	1,404 (20)	178 (22)	643 (13)	335 (17)	1,836 (18)	2,507 (M = 3.5, SD = 1.96)
Not listed	970 (6)	615 (6)	247 (5)	106 (4)	527 (7)	236 (5)	205 (4)	574 (6)	344 (5)	42 (5)	359 (7)	140 (7)	467 (5)	822 (M = 3.3, SD = 1.98)
Relationship		$\chi^2(2) = 55.83$, $p \leq .001$			$\chi^2(2) = 58.38$, $p \leq .001$			$\chi^2(2) = 75.17$, $p \leq .001$			$\chi^2(2) = 66.46$, $p \leq .001$			t(14,736) = −0.82, p = .41
Not partnered	8,882 (52)	5,356 (54)	2,357 (49)	1,143 (47)	4,412 (55)	2,194 (49)	2,263 (49)	5,002 (55)	3,440 (48)	380 (47)	2,828 (56)	1,038 (54)	4,930 (49)	7,682 (M = 3.3, SD = 1.94)
Partnered	8,306 (48)	4,559 (46)	2,432 (51)	1,295 (53)	3,644 (45)	2,279 (51)	2,373 (51)	4,130 (45)	3,685 (52)	429 (53)	2,226 (44)	897 (46)	5,108 (51)	7,056 (M = 3.3, SD = 1.87)
Outness		$\chi^2(6) = 1,417.86$, $p \leq .001$			$\chi^2(6) = 1,503.16$, $p \leq .001$			$\chi^2(6) = 1,004.68$, $p \leq .001$			$\chi^2(6) = 2,430.33$, $p \leq .001$			F (2,14,284) = 373.51, $p < .001$
Out to no one	132 (1)	123 (1)	0 (0)	8 (0)	104 (1)	0 (0)	26 (1)	120 (1)	7 (0)	5 (1)	106 (2)	2 (0)	22 (0)	-
Out to some	4,565 (27)	3,610 (38)	546 (12)	394 (17)	3,157 (40)	530 (12)	871 (20)	3,222 (36)	1,196 (17)	127 (17)	2,558 (52)	329 (17)	1,631 (17)	2,970 (M = 2.5, SD = 1.73)
Out to most	10,147 (59)	5,227 (54)	3,383 (73)	1,517 (65)	4,060 (52)	3,211 (74)	2,865 (65)	4,903 (55)	4,713 (69)	467 (61)	2,016 (41)	1,330 (70)	6,716 (70)	9,665 (M = 3.5, SD = 1.90)

	Gender listed on IDs				Name listed on ID			Received surgeries			Received hormones			Family Support
	Total N (%)	**Not consistent**	**Some consistent**	**All consistent**	**Not consistent**	**Some consistent**	**All consistent**	**Not consistent**	**Some consistent**	**All consistent**	**Not consistent**	**Some consistent**	**All consistent**	***N* (mean, SD)**
Out to all	1,773 (10)	674 (7)	686 (15)	405 (17)	499 (6)	592 (14)	680 (15)	620 (7)	961 (14)	169 (22)	221 (5)	235 (12)	1,299 (13)	1,652 (*M* = 3.7, *SD* = 1.89)
Age		$\chi^2(6) = 2{,}257.05$, $p \leq .001$			$\chi^2(6) = 1{,}594.99$, $p \leq .001$			$\chi^2(6) = 3{,}491.82$, $p \leq .001$			$\chi^2(6) = 2{,}023.83$, $p \leq .001$			F (3,14,734) = 87.19, $p < .001$
18–24	5,834 (34)	4,625 (47)	900 (19)	298 (12)	3,842 (48)	1,081 (24)	903 (20)	4,697 (51)	1,071 (15)	58 (7)	2,863 (57)	707 (37)	2,219 (22)	4,947 (*M* = 3.4, *SD* = 2.07)
25–44	7,486 (44)	3,885 (39)	2,547 (53)	1,037 (43)	3,071 (38)	2,306 (52)	2,101 (45)	3,341 (37)	3,851 (54)	260 (32)	1,543 (31)	1,021 (53)	4,872 (49)	6,697 (*M* = 3.4, *SD* = 1.85)
45–64	3,291 (19)	1,233 (12)	1,159 (24)	888 (36)	1,009 (13)	936 (21)	1,340 (29)	958 (11)	1,931 (27)	349 (43)	557 (11)	191 (10)	2,496 (25)	2,688 (*M* = 2.9, *SD* = 1.68)
65+	577 (3.4)	172 (2)	183 (4)	215 (9)	134 (2)	150 (3)	292 (6)	136 (2)	272 (4)	142 (18)	91 (2)	16 (1)	451 (5)	406 (*M* = 2.5, *SD* = 1.55)
Race		$\chi^2(6) = 28.88$, $p \leq .001$			$\chi^2(6) = 27.85$, $p \leq .001$			$\chi^2(6) = 54.95$, $p \leq .001$			$\chi^2(6) = 41.28$, $p \leq .001$			F (3,27,711) = 1.24, $p = .29$
Black/ African American	796 (3)	499 (3)	180 (4)	117 (3)	315 (3)	159 (3)	322 (3)	485 (3)	233 (3)	71 (3)	225 (3)	71 (3)	491 (3)	796 (*M* = 2.01, *SD* = 2.15)
Latino/ Hispanic	1,473 (5)	1,032 (6)	247 (5)	189 (5)	742 (6)	249 (5)	479 (5)	990 (6)	383 (5)	92 (4)	538 (6)	130 (6)	788 (5)	1,473 (*M* = 4.79, *SD* = 51.94)
White	22,873 (83)	15,218 (82)	4,294 (83)	3,274 (84)	10,492 (82)	4,420 (83)	7,902 (82)	14,199 (82)	6,804 (85)	1,728 (82)	7,492 (82)	1,674 (80)	13,456 (83)	22,873 (*M* = 4.63, *SD* = 49.75)
Other	2,573 (9)	1,801 (10)	446 (9)	317 (8)	1,194 (9)	483 (9)	890 (9)	1,730 (10)	612 (8)	212 (10)	901 (10)	229 (11)	1,410 (9)	2,573 (*M* = 5.88, *SD* = 49.75)

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Table 2.

Descriptives and correlations between study variables.

	1.	2.	3.	4.	5.	6.	7.	8.
1. Affirmation	-							
2. Discrimination	−.11***	-						
3. Substance use	.05***	.20***	-					
4. Suicidal ideation	−.35***	.36***	.09***	-				
5. Past-year healthcare	.48***	−.01	.04***	−.10***	-			
6. General health	.27***	−.19***	−.03	−.30***	.14***	-		
7. Psychological distress	−.46***	.33***	.11***	.68***	.23***	−.43***	-	
8. Past-year HIV test	.26***	.24***	.21***	−.01	.36***	.08***	−.09***	-
Mean	-	-	.41	.47	.90	3.40	.35	.25
SD	-	-	.49	.50	.31	1.02	.48	.43

Note.

*** $p \leq .001$.

Correlations are with affirmation and discrimination latent variables. For this reason, there are no means or SDs for these two variables. We ran correlations in one model within Mplus. Correlations between continuous variables are estimated as Pearson correlations, correlations between continuous and dichotomous variables are point biserial correlations, correlations between continuous and ordinal variables are point polyserial correlations, correlations between ordinal and other ordinal or binary variables are polychoric correlations, and correlations between binary variables are tetrachoric correlations.