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Article

Correlations between healthcare provider interactions and mental health among transgender and nonbinary adults

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ABSTRACT

Transgender and nonbinary patients have a wide array of experiences when attempting to access healthcare, including discrimination and having to educate providers about trans people. This study examines the mental health factors connected to transgender and nonbinary patients' experience with providers to determine the likelihood of transgender or nonbinary patients receiving respectful care after a provider knows about the patient's gender identity, and patients' experience of having to educate providers about trans people, controlling for sociodemographic factor. Using data from the 2015 United States Trans Survey ($N = 27{,}715$), chi-square tests of independence and multivariate logistic regressions were used to explore the odds of transgender or nonbinary individuals having a positive experience with a doctor or healthcare provider. Of the respondents, 24.31% experienced having to educate a provider about trans people when seeking care, and 62.90% experienced a provider knowing they were transgender or nonbinary and treating them with respect. Those experiencing depression and suicidal thoughts were significantly less likely to have had a provider treat them with respect, and significantly more likely to need to educate their providers. Gender, age, disability status, and educational level were significant across both variables; income was significant regarding having to educate a provider. Healthcare providers need ongoing training and education to improve their care of transgender and nonbinary patients, specifically around acknowledging the multiple backgrounds and experiences of such patients, including those related to mental health, gender, race, age, income, educational level, and disability.

Introduction

Transgender and nonbinary (TNB) individuals are those whose gender identity does not align with the social expectations associated with their sex assigned at birth (Devor & Thomas, 2019). This can include trans women, trans men, nonbinary people, a gender individuals, genderfluid or genderqueer people, two-spirit members of indigenous communities, and other evolving identities. The United States Census and more representative government surveillance systems do not reliably collect data on gender identity. However, surveys have suggested that this population makes up 0.4% of the general adult population (Meerwijk & Sevelius, 2017), and 0.7%–3.2% of young adults age 24 years or younger (Eisenberg et al., 2017; Herman, Flores, Brown, Wilson, & Conron, 2017; Wilson, Choi, Herman, Becker, & Conron, 2017), with more young people identifying as a gender other than cisgender (non-transgender) men and women. It should be noted that trans and nonbinary themselves are fluid categories; some trans people identify as nonbinary (including, for example, as a nonbinary trans woman), and some nonbinary people identify as trans. However, not all nonbinary people are trans. These categories are neither completely overlapping nor completely separate, as may be common with identity based labels.

The TNB population has high rates of mental health concerns, especially depression, anxiety, and suicidal thoughts (James et al., 2016). Much of the literature documents the alarming rates of health disparities and discrimination faced by this population (Cruz, 2014; Kcomt, 2019; Reisner, White, Bradford, & Mimiaga, 2014). Yet little is known about how mental health is related to interactions with healthcare providers, including experiences of being treated with respect by a provider, or having to educate a provider about one's own identity group.

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Mental health outcomes

Prevalence of mental health concerns among TNB individuals is not as thoroughly researched as it is for cisgender individuals, as gender identity data are not often collected about TNB patients (Heck, Mirabito, LeMaire, Livingston, & Flentje, 2017). Both stigma and internalized transphobia can reduce the likelihood of accurate and comprehensive data collection (Scandurra et al., 2018). However, the United States Transgender Survey (USTS) found that members of the TNB population have higher rates of depression, anxiety, and suicidal ideation than the general population (James et al., 2016). Many mental health concerns in the TNB population can develop in response to living in a transphobic world, in contrast to the erroneous notion that being TNB is a mental health concern itself (Staples, Neilson, Bryan, & George, 2018). Internalized transphobia experienced by the TNB population can worsen mental health outcomes (Scandurra et al., 2018).

Mental health needs, including non-suicidal self-injury, suicidality, psychological distress, depression, anxiety, substance use, and experiences of victimization and stigma are greater among TNB youth and adults than among their cisgender peers, and many nonbinary individuals face higher rates of mental health distress than their transgender peers who identify as men or women (James et al., 2016; Matsuno & Budge, 2017; Perez-Brumer, Day, Russell, & Hatzenbuehler, 2017; Rimes, Goodship, Ussher, Baker, & West, 2019; Veale, Watson, Peter, & Saewyc, 2017). The 2015 USTS found that 39% of TNB adults had experienced psychological distress in the month prior to taking the survey, and 40% had attempted suicide in their lifetime (James et al., 2016). Other studies corroborate these high rates of TNB mental health issues. One study found that depression is twice as prevalent in TNB young adults as compared to cisgender peers, affecting 52% of this population, while anxiety was experienced by 38% of the TNB participants (Reisner, Katz-Wise, Gordon, Corliss, & Austin, 2016). Another study found that the most prevalent types of anxiety among TNB individuals include specific phobia, social anxiety, obsessive-compulsive disorder, and panic disorder (Millet, Longworth, & Arcelus, 2017). Depression among TNB adults has been correlated with negative self-perceptions of community tolerance (Owen-Smith et al., 2017).

TNB mental health can benefit greatly from accessing empowering healthcare and social support (Bockting, Miner, Swinburne Romine, Hamilton, & Coleman, 2013; Farrell, 2018; Gower et al., 2018). For example, suicidal ideation has been shown to decrease when transgender veterans receive affirming medical interventions compared with veterans who want but do not receive interventions (Tucker et al., 2018). Transgender youth who transition and are supported in this process do not have different rates of depression and only slighter higher rates of anxiety than their cisgender peers (Olson, Durwood, DeMeules, & McLaughlin, 2016). Social anxiety may also be reduced when TNB patients receive affirming medical care (Butler et al., 2019). Additionally, TNB adults who have providers that they consider to be trans affirming have reported significantly lower rates of current depression and suicidal ideation (Kattari, Walls, Speer, & Kattari, 2016). Mandatory mental health assessments can be a problematic barrier to receiving transgender-affirming services and treatment (Ettner, 2018; Gridley et al., 2016).

Healthcare experiences and intersectional identities

Different groups within the larger TNB population may have differential healthcare experiences (Tabaac, Sutter, Wall, & Baker, 2018). TNB people of color experience report higher rates of discrimination across both healthcare and mental health services than their White counterparts (Kattari, Walls, Whitfield, & Langenderfer-Magruder, 2015, Kattari, Walls, Whitfield, & Langenderfer Magruder, 2017). Disabled TNB adults experience higher rates of discrimination when accessing mental health services than their non-disabled peers (Kattari, Walls, & Speer, 2017). Older adults with increasing care needs benefit from additional culturally responsive care to understand how their gender identities and expressions have evolved over their lifetimes; concerns about privacy and safety when receiving care (Ansara, 2015), and varied experiences of healthcare discrimination throughout the life course (Kattari & Hasche, 2016) should be taken into account.

Healthcare provider interactions

Negative healthcare provider interactions can include providers not understanding the healthcare needs of TNB patients, or the difference between sex, gender, and sexual orientation, which can lead to providers pathologizing their patients and denying care (Lefkowitz & Mannell, 2017). Uncertainty and ambivalence regarding serving diverse patient populations amongst providers have been shown to be correlated with a lack of TNB exposure and education (Poteat, German, & Kerrigan, 2013). Due to this, clinicians may try to fit their patients into binary gendered medical schema and not provide transgender-affirming interactions (Paine, 2018). Transgender patients who identify along the gender binary may face less misgendering by providers than their nonbinary counterparts, and experience less mental health distress (Goldberg, Kuvalanka, Budge, Benz, & Smith, 2019). Negative experiences with healthcare may correlate with reduced quality of life and higher rates of self-reported disability among TNB patients (Beckwith, Reisner, Zaslow, Mayer, & Keuroghlian, 2017; Zeluf et al., 2016).

All healthcare staff and providers can play a role in affirming TNB patients in their care needs (Lindroth, 2016). Healthcare is considered transgender-affirming when it respectfully supports TNB patients' own self-identified gender identity. TNB patients have reported positive experiences receiving healthcare when providers have used inclusive, respectful language and allowed their patients more control over their own procedures (Baldwin et al., 2018). Transgender-affirming care can significantly improve patients' mental health (Waldman, Waldman, & Grant-Kels, 2018).

TNB patients may need a comfortable environment in which to disclose their gender identities to providers. This is particularly true when these identities are medically relevant to their chief complaint *and* their providers may be unsure about the best way to ask about these identities (Maragh-Bass et al., 2017). One challenge is when providers rely on their TNB patients to serve as educators about their population, which can be very harmful for provider/patient interactions (Farrell, 2018). This is likely an outcome of lack of appropriate training for providers about the TNB population; a recent study found that 88% of emergency department professionals provided care for trans people, yet 82.5% had never received formal training on working with this population and most lacked basic clinical knowledge about trans care (Chisolm-Straker et al., 2018). This lack of information—in combination with stigma, harassment, and mistreatment—contributes to the fear and victimization of TNB people in healthcare settings.

TNB patients have a wide array of experiences when attempting to access healthcare. Little is known about the mental health and sociodemographic factors connected to interactions with healthcare providers, including having a provider who is respectful of the patient's TNB identity, and/or the experience of having to educate a provider about TNB people. Therefore, this study addresses three questions: (1) How common is the experience of having a provider who treats a patient respectfully when knowing about their TNB status? (2) How common is the experience of a TNB patient having to educate their provider about trans people; and (3) How is mental health, when controlling for sociodemographic factors such as gender, race, age, class, educational level, and disability, related to these experiences?

Methods

Study design

The USTS was conducted in 2015 to ascertain the breadth of life

experiences of TNB individuals in the United States. It is the largest survey of this population to date. Online convenience sampling and purposive sampling through organizational partners was used to gather respondents. The survey could be taken in English or Spanish as long as the individual identified as transgender or nonbinary, and was age 18 years or older. After data cleaning, the final USTS set contained data on 27,715 individuals. The USTS dataset was utilized in this study for secondary data analysis of TNB experiences in healthcare settings.

Data analysis

This study focused on the odds of a TNB individual having a positive experience with a doctor or healthcare provider. Two dependent variables, "a doctor knew I was trans and treated me with respect" and "[I] had to teach a doctor or healthcare professional about trans people," were used with mental health and various sociodemographic control variables using chi-square tests and multivariate logistic regression analysis. Those USTS survey takers who indicated they had seen a provider in the prior year were asked if they had experienced either type of healthcare interaction 12 months prior to taking the survey. All respondents who answered either of the two questions were included in our analytical sample.

Independent variables related to mental health included having suicidal thoughts in the previous 12 months, as well as a variable for the Kessler (K6) Psychological Distress Scale, a six-measure, 24-point self-rated scale of anxiety and depression across areas like hopelessness and restlessness (National Comorbidity Survey, n. d.); the USTS dataset contains a recoded binary variable where all respondents who scored 13 or higher on the Kessler scale were coded as "yes," indicating "serious psychological distress" (James et al., 2016). Sociodemographic control variables included educational attainment, disability, age, race, income, and gender identity.

Chi-square tests analyzed the significance of the association between the two dependent variables and gender identity. These bivariate tests were conducted using a 4-category variable for gender, called "gender 5" in the USTS dataset. This included two transgender categories, trans women and trans men, and two genderqueer/nonbinary categories, assigned female at birth (AFAB) genderqueer/nonbinary, and assigned male at birth (AMAB) genderqueer/nonbinary. These categories were based on survey respondents' self-reported sex-assigned-at-birth and current gender identity. In the survey data, genderqueer/nonbinary was a single identity option that collapsed together two umbrella terms, both of which indicate a lack of personal fit with binary gender identity (Monro, 2019; Richards et al., 2016). Another category, "crossdresser," was dropped from analysis as this study sought to understand experiences specific to transgender and nonbinary individuals.

We produced two logistic regression models, one for each dependent variable. There were minor differences in final sample size between the models due to differences in missing data for the dependent variables. No missingness patterns were detected.

The models and variables underwent several specification tests. First, variables were tested for sufficient data. The Native American (n = 136) and Middle Eastern (n = 75) race categories were dropped due to low sample size that resulted in a lack of events for these variables. Second, the variable for age was evaluated as a quadratic term. After including this term in each regression model, post-hoc F tests concluded that inclusion of the age quadratic term strengthened the model, suggesting a polynomial property to age. Finally, the USTS dataset contains an oversampling of those who were 18 years old and White. Due to this, the USTS study team created, and recommended the use of a standard sample weight to bring the sample more in line with what is understood to be the general demographics of the TNB population in the United States (James et al., 2016). These weights were utilized across analyses.

Results

Descriptive results (Table 1) of the analytical sample are presented for both the unweighted and weighted samples, but all analyses were conducted using the latter. Approximately two-thirds of the weighted sample identified as transgender, 31.56% being trans men and 35.19% being trans women. While 63.44% of the weighted sample identified as White, 16.40% identified as Latino/a/Hispanic and 12.64% identified as Black. The vast majority of weighted sample respondents had at least some college education (88.41%); however, 36.83% earned an income of $25,000 or less. The mean age was 31.24 years old and 28.48% of the respondents were disabled. Nearly half of all respondents in the weighted sample (48.36%) had suicidal thoughts and 37.68% scored 13 or higher on the K6 scale, indicating serious psychological distress.

Bivariate results (Table 2) demonstrated a significant relationship between gender identity and both being treated with respect ($F = 812.81$, $p < 0.001$) and teaching about trans people ($F = 57.79$, $p <$

Table 1
Descriptive Results.

Categorical variable	Unweighted ($n = 20,672$)		Weighted ($n = 20,195$)	
	n	%	*n*	%
Kessler 6 Scale				
Yes	7678	37.14	7609	37.68
No	12,994	62.86	12,586	62.32
Suicidal thoughts				
Yes	9957	48.17	9765	48.36
No	10,715	51.83	10,430	51.64
Gender (2 categories)				
Transgender	13,639	65.98	13,459	66.64
Genderqueer or nonbinary	7033	34.02	6736	33.36
Gender (4 categories)				
Trans women	7346	35.54	7106	35.19
Trans men	6293	30.44	6353	31.46
(AFAB GQ/NB)	5717	27.66	5474	27.11
(AMAB GQ/NB)	1316	6.37	1262	6.25
Race				
White	17,276	83.57	12,811	63.44
Latino/a/Hispanic	1075	5.20	3313	16.40
Black	597	2.89	2552	12.64
Asian/Pacific Islander	599	2.90	1027	5.09
Biracial/Multiracial	1125	5.44	492	2.43
Education attainment				
Less than high school	565	2.73	435	2.15
High school	2282	11.04	1907	9.44
Some college	7691	37.20	8012	39.68
Associate's degree	1733	8.38	1792	8.87
Bachelor's degree	5456	26.39	5250	26.00
Graduate or professional degree	2945	14.25	2798	13.86
Income				
No income	785	3.80	834	4.13
Low income ($1 - $10k)	2506	12.12	2673	13.24
Low-mid income ($10k - $25)	4004	19.37	3930	19.46
Mid income ($25 - $50k)	4599	22.25	4541	22.49
Mid-high income ($50k - $100)	5242	25.36	4919	24.36
High income ($100k +)	3536	17.11	3297	16.33
Disability				
Yes	5907	28.57	5752	28.48
No	14,765	71.43	14,443	71.52
Continuous variable	**Unweighted**		**Weighted**	
	Mean	**Standard deviation**	**Mean**	**Standard error**
Age	31.54	13.38	31.24	0.12
Age quadratic term	1174.0	1074.55	1140.63	9.04

Note. AFAB GQ/NB = Assigned female at birth, genderqueer/nonbinary; AMAB GQ/NB = Assigned male at birth, genderqueer/nonbinary.

Table 2
Interactions With Healthcare Providers: Chi-square Results for Gender Identity.

	Gender Identity					Design-Based F[a]
	Trans Women (%)	Trans Men (%)	Assigned Female at Birth Genderqueer/ Nonbinary (%)	Assigned Male at Birth Genderqueer/ Nonbinary (%)	Row Total *n* (%)	
Doctor knew I was trans and treated me with respect (weighted $n = 20,166$)						
Yes	81.16	78.93	27.45	34.42	12,702 (62.99)	812.81***
No	18.84	21.07	72.55	65.58	7464 (37.01)	
Had to teach doctor or healthcare professional about trans people (weighted $n = 20,117$)						
Yes	25.69	31.20	16.51	15.83	4891 (24.31)	57.79***
No	74.31	68.80	83.49	84.17	15,226 (75.69)	

Note. *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.
[a] With weighted data, chi-square tests are converted into a design-based F statistic to provide a more accurate p-value.

0.001). While the overall majority of respondents were treated with respect (62.99%), the majority of AFAB genderqueer/nonbinary individuals (72.55%) and AMAB genderqueer/nonbinary individuals (65.58%) did not have a doctor that knew they were trans and treated them with respect. Conversely, a greater proportion of transgender respondents than genderqueer/nonbinary respondents had to teach a doctor or healthcare professional about trans people, including 25.69% of trans women and 31.20% of trans men. In total, 24.31% ($n = 4891$) of the weighted sample had to teach their healthcare providers about trans people .

Overall, both multivariate logistic regression models were statistically significant ($p < 0.001$), see Table 3. All results assume we were controlling for other variables in the model. Those individuals assessed as having serious psychological distress on the K6 scale had lower odds (OR: 0.67; $p < 0.001$) of being treated with respect, and greater odds (OR: 1.17; $p < 0.01$) of needing to teach about trans people, in comparison with those without serious psychological distress. Similarly, those individuals with suicidal thoughts had lower odds (OR: 0.88; $p < 0.05$) of being treated with respect and greater odds (OR: 1.33; $p < 0.001$) of needing to teach about trans people, in comparison with those who did not have suicidal thoughts.

In comparison with transgender respondents, those who were genderqueer or nonbinary had lower odds (OR: 0.11; $p < 0.001$) of having a doctor who knew they were trans and being treated with respect. However, this group also had lower odds (OR: 0.46; $p < 0.001$) of having to teach their providers about trans people in comparison with those who identified as transgender. In terms of income, those who were low income (OR = 1.47, $p < 0.001$), low-mid income (OR = 1.16, $p < 0.05$), and mid-income (OR = 1.26, $p < 0.01$) had greater odds of needing to teach doctors and other healthcare professionals about trans people in comparison with those who were high income. However, no income categories were significantly associated with being treated with respect. Similarly, no racial categories were associated with either dependent variable. Those whose highest level of educational attainment was an associate's degree or lower had decreased odds of being treated with respect in comparison with those with a bachelor's degree as their highest level of attainment. However, those with a graduate or professional degree were more likely to have to teach providers about trans people (OR = 1.18, $p < 0.05$). Additionally, those who were disabled had 1.55 greater odds of needing to teach about trans people ($p < 0.001$) but also 1.19 greater odds ($p < 0.01$) of being treated with respect. Increased age was associated with greater odds of both being treated with respect (OR = 1.15, $p < 0.001$) and needing to teach providers about trans people (OR = 1.08, $p < 0.001$).

Table 3
Multivariate Logistic Regression of Interactions with Healthcare Providers.

	Doctor knew I was trans and treated me with respect ($n = 20,637$) (weighted $n = 20,166$)[a]		Had to teach doctor or healthcare professional about trans people ($n = 20,587$)< (weighted $n = 20,117$)[a]	
	OR	Robust SE	OR	Robust SE
Mental health				
Kessler 6 Scale	0.67***	0.037	1.17**	0.07
Suicidal thoughts	0.88*	0.046	1.33***	0.07
Gender				
Transgender (ref)	1.0		1.0	
Genderqueer/nonbinary	0.11***	0.01	0.46***	0.03
Income				
High income ($100K+) (ref)	1.0		1.0	
Mid-high income ($50K-$100K	0.96	0.07	1.05	0.07
Mid income ($25K-$49,999)	1.04	0.08	1.26**	0.09
Low-mid income ($10K-$24,999)	1.05	0.08	1.16*	0.09
Low income (<10K)	1.19	0.13	1.47***	0.15
No income	0.76	0.12	1.15	0.19
Race				
White (ref)	1.0		1.0	
Latino/a/Hispanic	0.93	0.08	0.92	0.07
Black	1.29	0.18	0.89	0.12
Asian/Native Hawaiian/Pacific Islander	1.15	0.12	0.84	0.09
Biracial/Multiracial	1.02	0.08	1.08	0.08
Age	1.15***	0.01	1.08***	0.01
Age quadratic term	1.0***	0.00	1.0***	0.00
Disability	1.19**	0.07	1.55***	0.08
Education				
Bachelor's degree (ref)	1.0		1.0	
Less than high school	0.64*	0.14	0.74	0.15
High school grad (including GED)	0.63***	0.06	0.63***	0.06
Some college (no degree)	0.70***	0.04	0.80***	0.05
Associate's degree	0.73**	0.07	0.86	0.07
Graduate or professional degree	1.08	0.08	1.18*	0.08

Note. *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

Discussion

Our results clearly indicate that there are major differences in who is able to access respectful healthcare providers. Over one-third of the total sample (37.01%) had experienced a provider not treating them respectfully when knowing about their TNB identity. Those experiencing depression and suicidal thoughts were significantly less likely to have had a provider treat them with respect. This finding leads to the question of whether mental health status impacts TNB people's access to affirming providers or if having a disrespectful provider increases depression and suicidal thoughts in this population.

Minority Stress Theory posits that people who experience high levels of stigma around their marginalized identity (ies) are more likely to have

elevated levels of depression, anxiety, substance use, and other mental health concerns (Meyer, 1995). While Meyer's model of minority stress focuses on the experience of lesbian, gay, and bisexual individuals, many researchers have used this model to explain some of the high rates of mental health concerns among the TNB population (Rood et al., 2016; Scandurra, Amodeo, Valerio, Bochicchio, & Frost, 2017; Seelman, Colón-Diaz, LeCroix, Xavier-Brier, & Kattari, 2017) and other researchers have found that many of these assumptions and domains can be similarly applied to this population (Testa, Habarth, Peta, Balsam, & Bockting, 2015). Therefore, it is likely that some of the negative mental health outcomes are due to experiencing providers who are disrespectful when knowing of one's TNB identity, or the process of having to educate one's provider. However, it is also possible that those TNB individuals experiencing high rates of depression or anxiety may be less likely to access a respectful provider due to the elevated stress that mental health concerns can place on an individual. This additional stress may further reduce an individual's capacity to search for and/or access a more respectful provider. More research is needed to understand the directionality of this association.

Similarly, those experiencing depression and suicidal thoughts were significantly more likely to have had to educate their providers about trans people than their counterparts without these mental health experiences. As with the findings regarding disrespectful providers, it is possible they were less likely to have the capacity to seek out providers who had more experience with TNB care. However, in line with minority stress theory, is likely that the process of having to their educate providers increased their experiences of depression and/or anxiety. It is important for longitudinal research to explore this relationship more deeply.

Regarding the control variables, nonbinary individuals (including both AMAB and AFAB) were significantly less likely to have had a provider who knew they were trans and treated them with respect than either trans men or trans women, which is interesting, given that a recent study found that nonbinary individuals were less likely to delay care due to fear of discrimination than their transfeminine counterparts (Kattari, Atteberry-Ash, Kinney, Walls, & Kattari, 2019). Nonbinary individuals were less likely to have had to educate providers; it is possible that they were also less likely to share (i.e., to be out about) their gender identity with their providers.

Those with lower levels of education were less likely to have a respectful provider than those with a bachelor's degree, though there was no significant difference for those with graduate degrees. Lower education attainment has been associated with lower rates of access to transgender-affirming care (White Hughto, Rose, Pachankis, & Reisner, 2017). Those with a high school diploma or some college were less likely to have had to educate a provider than those with a bachelor's degree. Income was not significant regarding respectful provider interactions, indicating that fiscal access may not be directly related to having a respectful provider, although those with low to mid-levels of income were significantly more likely to have had to educate providers about TNB people than those with higher income, which may indicate that those with a higher income were able to select providers they already knew to be knowledgeable about the trans population. Increase in age and disability status also increased the likelihood of having a provider who treated them with respect when knowing their TNB status, as well as the likelihood of having to educate a provider about trans people.

Implications

There is a need to support providers both in gaining knowledge about the TNB population and their healthcare needs and in providing respectful and responsive care to this group of patients. At each micro, mezzo, and macro level, providers can update practices to help their TNB patients feel cared for and affirmed (Matsuno, 2019), which may be associated with more positive mental health outcomes. To help providers offer affirming care to TNB patients, provider education embedded into the medical school curriculum, as compared to one-off trainings throughout providers' careers, is recommended (MacFarlane, 2018, p. 2046344875). Practitioners in some fields, such as nursing (Kellett & Fitton, 2017), obstetrics and gynecology (Stroumsa & Wu, 2018), and primary care (Shires, Stroumsa, Jaffee, & Woodford, 2018), have already called for less gendered language and more education for providers throughout their training, as well as continuing education as knowledge changes and new research becomes available.

Increased provider exposure to and education about gender and the TNB population could foster positive and respectful interactions with healthcare providers (Frohard-Dourlent, Dobson, Clark, Doull, & Saewyc, 2017). Additionally, some TNB patients may prefer regular opportunities to provide feedback to their providers and to maintain decision-making control throughout their care process (Eyssel, Koehler, Dekker, Sehner, & Nieder, 2017). Interdisciplinary health teams can best support a TNB patient's care when they are well versed in TNB identities, procedures, and the individual patient's healthcare goals and desires (Salibian, Levitt, Zhao, & Bluebond-Langner, 2018).

Knowledgeable providers who use patients' correct names and pronouns help patients to feel safe and support them in continuing their care with these providers; this is particularly true when providers such as therapists and counselors check in regularly with their patients about evolving identities (Goldberg et al., 2019). Simple language changes can welcome and include more patients in formerly gendered provider spaces, and routinizing gender and identity questions can help all patients feel safe in disclosing their identities over time (Baldwin et al., 2018; Stroumsa & Wu, 2018). This includes the use of welcoming forms and appropriate options for sex and gender on all forms, even when gender is unrelated to the care being sought or provided by the office, including primary care (Whitlock et al., 2019). Moreover, when anatomy is related to health care needs (such as assessing whether a pap smear or a prostate exam might be needed), providers should ensure that all patients are asked similar questions (rather than just TNB patients) and that explanations are given as to why the information is being collected.

However, simply educating providers about diverse genders and having organizations update their forms is not enough. This study shows that nonbinary patients are less likely to have respectful providers who know they are TNB than other trans individuals, so there is also a need to have ongoing discussions about diverse identities within the TNB community. Additionally, given the differences across age, disability status, education status, and income level, these conversations need to take into account the fact that many patients hold multiple marginalized identities. Additionally, while race was not significant in this model, evidence has shown that TNB people of color also experience high levels of discrimination, so information around this intersection of identities should also be acknowledged. Providers should be having conversations about ableism, including related to mental health, ageism, classism, and racism, and have a better understanding of how the intersection of oppressions may change the type of treatment their patients receive in the healthcare system and even in their own offices.

Limitations

As with any study involving secondary data analysis, there are limitations associated with this methodology. These include not having input on the phrasing or design of any of the survey questions. For example, the dependent variable, "doctor knew I was trans and treated me with respect," may have resulted in inconsistent measurement across participants by measuring both outness and respect in one variable. Further, measurement error could have been introduced through participants' subjective interpretations of "respect" and having to "teach." It would also have been useful to know the type of provider that the participant felt treated them with respect and/or had to educate; interactions may have differed in primary care, specialists' care, and transgender-affirming care. Secondly, this survey collected cross-

sectional data, providing only a snapshot of the healthcare experiences of TNB patients, rather than allowing us to determine impact and directionality. Future responses could differ based on different policies and laws across cities, counties, and states; the political climate at the time; and even different experiences with different providers. Given these challenges, there is a clear need for research studies using both cohort and longitudinal models of the TNB population.

It should also be noted that this sample was based in the United States. Therefore, additional research is needed to determine if these findings may be similar or different to findings in other countries. Additionally, there are no representative data in the United States on this specific population; therefore, we cannot determine how accurately this sample reflects the TNB population within the United States. Given policy, political, and other attitudinal differences between states and even within larger states, there is a strong need for representative data to be collected on and with diverse TNB populations, including by geographical location, in order to better assess experiences and eventually inform interventions. This is particularly true of subgroups within the TNB population, such as Native American and Middle Eastern TNB people, whose experiences were dropped due to low sample size, but could be captured in the future through oversampling. Additionally, studies that specifically focus solely on the experiences of these racial/ethinic groups would be a good beginning to understanding better the needs and experiences of these subgroups.

Conclusion

TNB patients have a wide array of experiences with providers when attempting to access healthcare. Findings from the study indicate that patients have a variety of experiences with providers, both positive, in being respected by their providers, and challenging, in having to educate their providers. These experiences are associated with mental health factors. Providers need ongoing training and education to improve their care of TNB patients, specifically in acknowledging the multiple backgrounds and experiences of such patients including gender, race, age, class, educational level, and disability. Incorporating proactive approaches to the inclusive treatment and care of TNB patients will ensure these patients are treated not just with respect but also that they do not have to take on the role of educator for their provider.

Ethics

This study was found to be exempt from full review by the University of Michigan Institutional Review Board in 2018.

Author statement

Shanna K. Kattari – Conceptualization, methodology, writing (original draft), writing (review and editing), supervision.

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