

Attitudes toward transgender people of Mexican university students

Actitudes hacia las personas transgénero de estudiantes universitarios mexicanos

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Abstract:

Introduction: At the national level, research on attitudes towards transgender people is incipient, especially in academic field; therefore, the present study aimed to evaluate attitudes towards transgender people among Mexican college students and their associations with sociodemographic characteristics, orientation to social dominance and egalitarianism. **Methods:** The sample consisted of 471 undergraduate students between 16 and 29 years old from public universities of México City and Estate of Mexico. The Scales of Attitudes towards Transgender People and of Social Dominance Orientation were applied; socioeconomic characteristics were evaluated.

Results: It was observed that college students had a medium level of acceptance towards transgender people; however, between 2% and 5% of them still maintain attitudes of rejection. Men, religious people, and participants who scored higher on social dominance orientation expressed more negative attitudes toward transgender people and less positive in activism and interest in the topic. The opposite trends were observed among participants with higher levels of egalitarianism.

Conclusions: Negative attitudes toward transgender people can contribute to a hostile environment for this population group in educational institutions. Understanding and recognizing of human diversity by college students, especially health professionals, will enable them to respect this vulnerable population in their future professional activities

Keywords:

Attitudes, behaviors, transgender, gender role beliefs

Resumen:

Introducción: A nivel nacional, la investigación sobre las actitudes hacia personas transgénero es incipiente, especialmente en el ámbito académico. Por ello, el objetivo del presente estudio fue evaluar las actitudes hacia personas transgénero en estudiantes universitarios mexicanos y sus asociaciones con características sociodemográficas, orientación a la dominancia social y al igualitarismo.

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Métodos: La muestra estuvo conformada por 471 estudiantes de pregrado entre 16 y 29 años, de las universidades públicas de la Ciudad y del Estado de México. Se aplicaron las Escalas de Actitudes hacia las Personas Transgénero y de Orientación a la Dominancia Social, además de que se evaluaron características socioeconómicas.

Resultados: se observó que los estudiantes universitarios tuvieron un nivel medio de aceptación hacia las personas transgénero; sin embargo, entre 2% y 5% de ellos aún mantienen actitudes de rechazo. Los hombres, las personas religiosas y los participantes con una puntuación más alta en las escalas de la orientación a dominancia social expresaron actitudes más negativas hacia las personas transgénero y menos positivas en activismo e interés en el tema. Las tendencias opuestas se observaron entre participantes con niveles más altos de igualitarismo.

Conclusiones: Las actitudes negativas hacia las personas transgénero pueden contribuir a un ambiente hostil para este grupo poblacional en las instituciones educativas. Comprender y reconocer la diversidad humana por parte de los estudiantes universitarios, especialmente estudiantes de ciencias de la salud, permitirá respetar a esta población vulnerable en sus futuras actividades profesionales

Palabras Clave:

Actitudes, comportamientos, transgénero, creencias sobre roles de género

INTRODUCTION

Transgender is an umbrella term that refers broadly to individuals whose common denominator is that sex assigned at birth does not match their identity and/or expressions of their gender.¹⁻⁴ In Mexico, research on the topic uses the term 'trans' interchangeably to encompass all gender-non-conforming expressions and identities.⁵ In the Mexican context, "trans" refers to transgender, transsexual, transvestite or non-binary individuals.⁶

The most frequent bioethical questions in transgender medicine are related to the optimal treatment of adolescents, sterilization as a requirement for legal recognition, the role of fertility and paternity, as well as regret after a sex change.⁷

In the United States, approximately 1.9% of the adult population identified as transgender.⁸ An average of 2% was observed in most western European countries, Brazil and Australia, with the exception of Germany and Sweden where the prevalence was 3%.^{9,10} In Mexico in 2021, 0.9% of adults were transgender men or women according to National Survey on Sexual and Gender Diversity.¹¹

Transgender people are subject to discrimination and abuse due to social marginalization and lack of access to basic rights, especially to health care. They are less likely to have health insurance and access to medical services despite the fact that safe and effective hormonal support for the development of physical characteristics that affirm their gender identity has always raised numerous bioethical issues.^{12,13}

Although the growing number of transgender people make public her/his identity all over the world, they still suffer from non-compliance with their specific needs regarding diagnosis, hormone therapy or surgical treatment, as well physical and mental health inequalities in comparison to their cis counterparts.¹⁴ The vulnerability of these people is

very high due to the disrespectful attitude towards them that prevents transgender people from seeking help.¹³ These experiences frequently lead them to homelessness, drug, and alcohol abuse.¹⁵⁻¹⁷ In an online sample of Mexican sexual minorities, it has been shown that of 12,331 participants 3.3% were trans women (TW) and 4% trans men (TM).¹⁸ The survey reported that 74.8% of TM and 74.4 % of TW had been discriminated. Due to family problems, 31.7% of transgender individuals felt excluded and had to leave home at an early age. In addition, 50.3% of TW and 40.9% of TM reported being unjustifiably denied opportunities to work, enter a business, study or access justice. These experiences of prejudice, faced by trans people, could be attributed to the negative attitudes that people have toward non-normative gender identities.¹⁸

Most evidence about attitudes to trans-people has been produced in high-income countries, such as the United States of America and Australia. In these contexts, attitudes toward transgender people are more negative among heterosexual men, Caucasians, as well as in people with a traditional binary conception of gender roles, higher levels of authoritarianism, political conservatism, anti-egalitarianism, and lack of personal contact with sexual minorities.^{15,19-24} In some groups, such as mental health practitioners, most participants have positive attitudes to trans people.¹⁹

Research about Mexican college students' perceptions of trans people is scarce. Low level of knowledge (average of 20% of correct answers) on the biological bases of transsexuality was observed in a sample of Mexican college students of physical activity careers.²⁵ In Mexican social work students, a medium level of rejection towards trans people was identified by Rodríguez-Otero and Treviño-Martínez.²⁶ These attitudes were related to sex, age, religion, and education.

At the national level, research on attitudes towards transgender people is incipient, especially in the academic

field. In order to recognize human diversity and improve the environment for this population group in educational settings, the aim of the present study was to evaluate attitudes towards transgender people among Mexican college students and their associations with sociodemographic characteristics, as well as with orientation to social dominance and/or egalitarianism.

Method

A quantitative, descriptive and cross-sectional study was carried out.

Participants

A questionnaire was applied to a convenience sample that consisted of 488 students from public universities in Mexico City during their regular classes. The participants answered the questionnaire using their computer or cell phone. The information was downloaded to the Google Drive platform. The participants were from areas with the highest human contact such as Health Sciences, Social Sciences and Humanities, as well as from Biomedical Engineering. Students who had 30 years old or older (17 participants) were discarded from analysis. Therefore, the sample consisted of 471 students between 16 and 29 years old. Time to answer the survey was approximately 20 minutes and the response rate was 100%.

For the descriptive analysis, sociodemographic characteristics were collected. Three age groups were formed: 16 to 19, 20 to 24, and 25 to 30 years old. For religion, there were three response options: Catholic, non-religious and others (Jehovah's Witnesses, Christian or Jewish). Regarding socio-economic level, participants could choose three categories of monthly family income: less than 10,000; from 10,000 to 20,000 and more than 20,000 pesos. It was asked if the participants have ever known a trans person with dichotomic answer: yes or no.

Scale of Attitudes towards Transgender People

To assess attitudes towards transgender people, the scale developed in Mexico by Chon, Burgos and Barajas²⁷ was applied. The scale consists of 34 items, which were grouped into four subscales (Cronbach's alpha of the original scale was 0.89). Likert scale with options 'totally disagree', 'partially disagree', 'neutral', 'partially agree', and 'totally agree' was used. A score from 1 to 5 was assigned to these options. When necessary, the scores were reversed. Cronbach's alpha of the total scale in the present study was 0.96.

The first subscale named "negative attitudes towards trans people" includes fifteen items (e.g. "I feel uncomfortable when I interact with a transgender person"). The score on this subscale can range from 15 to 75 and its Cronbach's alpha was 0.92 in the present study. The second subscale "authority and aggression" includes 11 items (e.g. "I have

verbally assaulted a transgender person") and had also adequate internal consistency in our sample (Cronbach's alpha = 0.90), and can have values from 11 to 55. The third and fourth subscales implied positive attitudes towards transgender people and were named "activism" and "interest in the topic". Each subscale included three items (e.g. "I would support a university policy for the dissemination of information on the topic of transgender people" and "I have researched the topic of transgenderism because it is of my interest"). The scores of these subscales ranged from 3 to 15 and their Cronbach's alphas were 0.80 and 0.71, respectively.

Social Dominance Orientation Scale

Research on attitudes towards trans people is relatively incipient, and traditionally studies on sexual prejudice have focused on leaning the determinants or explanatory factors of negative attitudes towards sexual minorities. Anti-transgender violence requires a conceptual framework from which the hatred of some people directed to this community can be understood. According to the Theory of Social Dominance,²⁸ all human societies tend to be structured as systems based on hierarchies, in which one of the groups is considered hegemonic, while other groups are perceived as subordinate or inferior (Sidanius and Pratto, 2004). In addition to age and sex, there are a series of arbitrary divisions, among which exist elements related to the rights of people with sexual and gender diversity.

A person oriented to social dominance, as a value, perceives hierarchies justifiable and therefore, is "normal" for him/her that one group is hegemonic while other groups are perceived as subordinate or inferior.²⁹

The Social Dominance Orientation Scale, adapted to Spanish by Silván-Ferrero and Bustillos,³⁰ was applied to a subsample of 141 students in the present study (Cronbach's alpha of the original scale was 0.91). The inventory contains two subscales: group-based dominance (Cronbach alpha = 0.77) and egalitarianism (Cronbach alpha = 0.84). The first subscale contains seven items (e.g. "It is probably good that certain groups are in a higher position and others in a lower position") and it had adequate internal consistency (Cronbach's alpha = 0.89) in the present study. The second subscale includes eight items (e.g. "We should increase social equity") and also had adequate internal consistency (Cronbach's alpha = 0.90). The scale has Likert format with answer options from totally disagree for totally agree was applied, for which the scores of the scales could be from 7 to 35 and from 8 to 40, respectively. Considering that in the present study there were low scores on the group-based dominance subscale, three groups were formed: without group-based dominance (score 7), low group-based dominance (8 to 11), and moderate group-based dominance (12 to 29). For the subscale of egalitarianism, three groups were created: low (scores from 11 to 34), moderate (35 to 38), and a high score (39).

Analysis

The statistical analysis was performed with the STATA program, version 16. The absolute and relative frequencies of participants' sociodemographic characteristics were estimated. The means of the four subscales on attitudes towards transgender people were compared with participants' sociodemographic characteristics and with a score of the Social Dominance Orientation Scale. Linear regression models were estimated, in which the dependent variables were the four subscales of Attitudes towards Transgender People and the independent variables were sociodemographic characteristics, social dominance and egalitarianism variables.

Ethical aspects

This study has been carried out following the Code of Ethics of the Declaration of Helsinki.³¹ The participants were assured of the data confidentiality, and their participation was voluntary. Written informed consent was obtained from participants. Tutors were asked for permission to apply the survey to participants under 18 years of age. The results reported herein are part of a large project entitled "Prejudice, discrimination and mental health". The ethical aspects of the project were granted by the Divisional Board of Biological and Health Sciences of the Metropolitan Autonomous University, Xochimilco Campus.

Results

From the total of 471 participants, most of them were women (76.4%), between 20 and 24 years old (56.3%), single (76.9%), professing the Catholic religion (62.4%) and with a low family income, less than 10,000 pesos (58.2%) (Table 1). Almost half of the participants had previous contact with a trans person (55.2%). Most of the students (79.4%) had low scores of the group-dominance orientation subscale, but high and moderate levels of the egalitarianism subscale (76.6%).

Table 1. Sociodemographic characteristics of college students (n=471)

Variables	n	%
<i>Sex</i>		
Men	111	23.6
Women	360	76.4
<i>Age, years</i>		
16 – 19	158	33.5
20 – 24	265	56.3
25 – 30	48	10.2
<i>Marital status</i>		

Married or cohabitation	17	3.6
Engagement	92	19.5
Single	362	76.9
<i>Religion</i>		
Catholic	294	62.4
Without religion	130	27.6
Other (Christian)	47	10.0
<i>Income, pesos</i>		
< 10,000	274	58.2
10,000-20,000	161	34.2
>20,000	36	7.6
<i>Had previous contact with a trans person</i>		
No	211	44.8
Yes	260	55.2
<i>Group-based dominance</i>		
Without	65	46.1
Low	47	33.3
Moderate	29	20.6
<i>Egalitarianism</i>		
Low	33	23.4
Moderate	38	26.9
High	70	49.7

With regard to Scale of Attitudes towards Trans People, the participants answers were mostly positive. Nevertheless, between 20% and 30% of students showed a medium and low level of acceptance of transgender people. In the question "Would you totally accept transgender people" 76.2% answered positively, 19.1% had a medium level (neutral answer) and 4.7% a low level of acceptance. In the question "Would you feel comfortable with a transgender person", 64.8% answered positively, 30.1% had a medium level (neutral answer) and 5.1% a low level of acceptance. In the question "Would you avoid dealing with a transgender person at the university?", 81% answered that they would not; however, 17.3% expressed the medium level of acceptance and 2.4% high level of rejection. Additionally, 3.9% of the students reported that they definitely do not accept trans people, 2.8% do not accept them as teachers and 3.3% prefer traditional social roles.

In comparison with men, the mean scores in women of negative attitudes and authority/aggression subscales were lower (p<0.0001), whereas the mean scores in the activism and interest in the topic subscales were higher, p<0.0001 (Table 2). Students who professed Catholic and other religions had a higher mean score in negative attitudes and authority/aggression subscales (p<0.0001), and a lower in activism and interest in the topic subscales. Participants who

had a previous contact with a trans person had a higher mean score in the interest in the topic subscale ($p=0.001$), but a lower mean score in the negative attitude subscale ($p=0.063$); however, in the latter the difference was marginal. Regarding orientation to social dominance (group-based dominance subscale of the Scale of Social Dominance Orientation), students with a moderate level of group-based dominance had more negative attitudes ($p<0.0001$) and authority/aggression ($p<0.0001$) towards trans people, as well as less activism ($p<0.0001$) and interest in the topic ($p<0.0001$) than students without or low level of social dominance. The opposite occurred with egalitarianism: students with a higher score of egalitarianism had lower scores in negative attitudes ($p<0.0001$) and authority/aggression ($p<0.0001$) subscales, but higher scores in activism and interest in the topic subscales ($p<0.0001$). There were no differences according to the age and income. Only students with a higher family income had a higher mean in activism subscale; however, the differences were marginally significant ($p=0.080$).

In multivariate linear regression models, having the four subscales of Attitudes towards Trans People as dependent variables and sociodemographic characteristics, social dominance and egalitarianism as independent variables, women had lower levels of negative attitude towards trans people ($p=0.018$) and authority/aggression subscales ($p=0.001$), but higher levels in activism ($p=0.006$) and interest in the topic ($p=0.083$) subscales, although in the latter case, the differences were marginally significant (Table 3).

Regarding religion, those who did not profess any religion had lower values in negative attitudes towards trans people ($p=0.015$) and authority/aggression ($p=0.032$) subscales. In contrast, students who professed Christian and other religions had more negative attitudes ($p=0.038$) and aggression ($p=0.015$) toward trans people.

Compared to their counterparts, students who had previous contact with a trans person scored higher in the interest in the topic subscale ($p=0.081$), although the difference was marginal.

Higher level of social dominance was positively related to the negative attitudes towards trans people ($p=0.005$) and the authority/aggression ($p<0.0001$) subscales, but negatively related to the activism ($p=0.072$) and interest in the topic ($p=0.024$) subscales; however, the relationship with activism was marginally significant. Egalitarianism was negatively related to the negative attitudes towards trans people ($p=0.001$) and aggression/authority ($p<0.0001$) subscales, but positively related to the activism ($p<0.0001$) and interest in the topic ($p=0.009$).

Discussion

In the present study, although most responses were positive, between 20% and 30% of the students presented a medium and low level of acceptance of trans people. Similarly, Rodríguez-Otero and Treviño-Martínez²⁶ identified medium level of rejection in Mexican college students towards transgender people. Furthermore, a low level of

knowledge on biological basis of transsexuality has been found among college students in Mexico.²⁵

In our sample, men expressed more negative and less positive attitudes toward trans people than women. This finding has been consistent across high- and medium-income countries.^{15,19-23} The difference between sexes can be attributed to the social construction of masculinity. From a sociocultural perspective, there is a rigid expectation that men are masculine; therefore, they should not tolerate non-normative gender roles and identities.^{32,33}

Regarding different religious beliefs, findings of our study reveal that participants who did not profess any religion had the lowest negative attitudes toward trans people, followed by catholic participants. The novelty of the study was that non-Catholic religious participants (Christian, Jewish, among others) exhibited the highest level of negative attitudes, which may be related with more conservative values. Previous research showed that religiosity was positively associated with negative attitudes;¹⁹⁻²⁴ however, there were less evidence on differences among religious denominations. This finding is relevant because in Mexico the proportion of Catholic people has decreased, whereas Christian denominations have increased in the last decades.³⁴ Among Mexican college students, those who had a contact with trans people presented more positive attitudes; nevertheless, the difference disappeared when other variables were adjusted. Similarly to our study, in other samples at the international level, those who have known trans people before have lower negative attitudes.^{20,21} These finding can be used to disseminate information about trans people for those who are not familiar with them.

In our study, participants with a higher score of group-based dominance subscale had more negative attitudes toward trans people and less positive ones. The opposite trends were observed among those with higher levels of egalitarianism. Individuals with higher level of group-based dominance perceive hierarchies as justifiable values and, therefore, for them is "normal" that one group is hegemonic while other groups are perceived as subordinate and inferior.²⁹ Orientation to group-based dominance was infrequent in our sample; therefore, this data can be used to identify students who can focus on certain topics to promote acceptance of diversity in the university campus.

Although in our sample, positive attitudes were reported by the majority of the participants, it has been shown that some students maintain a low or no acceptance of trans people. Negative attitudes of some students and teachers, which still exist, can contribute to a hostile environment for transgender people in educational institutions. In Mexico, discrimination based on gender identity and expression is a social phenomenon, and exclusion practices represent an obstacle to human development. Discrimination is based on prejudice, and part of the solution should come from social, legal, and medical sciences that may help understand and combat preconceptions and prejudices, as well as recognize and value human diversity.^{6,35}

University programs that may help provide services without discrimination are still insufficient; therefore, it is necessary

to prepare professionals who will respect human rights and sex-gender diversity.

For health professionals, teaching of bioethics can empower them not only to make decisions and act in accordance to their own values, but also guide them to use the understanding of diversity as a legitimate and desirable attribute of reality.¹³

Among the limitations of our study was using a self-report questionnaire to measure attitudes toward trans people, as well as the composition of the sample- the majority of the participants were women, who generally have more empathy towards sexual minorities than men. The answers depended on participants' experiences in the past toward individuals who assumed they were transgender. However, given the relatively small estimated proportion of trans people, it may be unlikely that participants in this study had encounters with transgender individuals previously or they were not aware of that. Additionally, participants may have been tempted to present themselves in a more positive attitudes than they have in reality; however, to obtain a real information would be both difficult and unethical.

Including other population groups in the sample would also allow to analyze how these attitudes and behaviors differ between young and older people. Replicating this study with a larger, more diverse sample could add important information about the aspects which contribute in the relationship between individual factors and attitudes/behaviors toward trans people. Future research is important about traditional gender roles beliefs, which are strongly related to attitudes toward transgender and LGBT people.

Conclusions

Some students still maintain negative attitudes towards trans people, which may contribute to an unfavorable environment for this group in educational settings. Variables such as sex, religious beliefs, having a previous contact with transgender people, orientation to social dominance/egalitarianism were associated with attitudes towards trans people among Mexican students.

The population groups with diverse needs should be visible in their access and participation. Challenging hetero-cis-normative assumptions can lead to more accepting behaviors and, consequently, to more accepting environments for transgender individuals. For this reason, professional educational programs with ethical issues on human rights and sex-gender diversity perspectives are required.

Understanding and recognizing of human diversity by college students will enable them to respect this vulnerable population in their future professional activities.

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Table 1. Sociodemographic characteristics of college students (n=471)

Variables	n	%
Sex		
Men	111	23.6
Women	360	76.4
Age, years		
16 – 19	158	33.5
20 – 24	265	56.3
25 – 30	48	10.2
Marital status		
Married or cohabitation	17	3.6
Engagement	92	19.5
Single	362	76.9
Religion		
Catholic	294	62.4
Without religion	130	27.6
Other (Christian)	47	10.0
Income, pesos		
< 10,000	274	58.2
10,000-20,000	161	34.2
>20,000	36	7.6
Had previous contact with a trans person		
No	211	44.8
Yes	260	55.2
Group-based dominance		
Without	65	46.1
Low	47	33.3
Moderate	29	20.6
Egalitarianism		
Low	33	23.4
Moderate	38	26.9
High	70	49.7

Table 2. Means of Attitudes towards Trans People subscales according to sociodemographic characteristics and Social Dominance Orientation subscales

Variables	Negative attitudes		Authority and aggression		Activism		Interest in the topic	
	M	p	M	p	M	p	M	p
Total	23.0		15.0		13.0		11.4	
Sex								
Men	27.7	0.000	18.4	0.000	11.8	0.000	10.5	0.000
Women	21.6		13.9		13.3		11.7	
Age, years								
16 – 19	23.7	0.503	15.0	0.870	12.8	0.415	11.3	0.491
20 – 24	22.9		15.0		13.1		11.6	
25 – 30	21.9		14.5		13.1		11.1	
Religion								
Catholic	22.8	0.000	14.8	0.000	13.2	0.000	11.6	0.000
Without religion	21.4		14.0		13.0		11.7	
Others	29.0		18.7		11.6		9.7	
Income, pesos								
< 10,000	23.3	0.806	15.3	0.330	13.0	0.080	11.3	0.423
10,000-20,000	22.6		14.7		12.7		11.5	
>20,000	23.1		13.8		13.7		11.9	
Had previous contact with a trans person								
No	23.8	0.063	15.4	0.116	12.8	0.097	11.0	0.001
Yes	22.4		14.6		13.1		11.8	
Group-based dominance								
Without	17.8	0.000	10.8	0.000	14.3	0.000	12.8	0.000
Low	23.8		14.2		12.8		10.8	
Moderate	34.3		21.4		10.6		8.8	
Egalitarianism								
Low	32.5	0.000	20.2	0.000	10.8	0.000	9.0	0.000
Moderate	24.5		14.3		12.6		10.6	
High	18.0		11.1		14.3		12.9	

Table 3. Attitudes towards Trans People subscales and associated characteristics: multivariate lineal regression models

Variables	Negative attitudes		Authority and aggression		Activism		Interest in the topic	
	B	p	B	p	B	p	B	p
Sex								
Men	Ref.		Ref.		Ref.		Ref.	
Women	-3.7	0.018	-2.7	0.001	0.9	0.006	0.8	0.083
Religion								
Catholic	Ref.		Ref.		Ref.		Ref.	
Without religion	-3.6	0.015	-1.7	0.032	0.5	0.169	0.1	0.851
Other (Christian)	4.7	0.038	2.9	0.015	-0.6	0.255	-0.9	0.163
Income, pesos								
< 10,000	Ref.		Ref.		Ref.		Ref.	
10,000-20,000	-1.0	0.515	-0.4	0.593	0.1	0.798	0.3	0.477
>20,000	0.8	0.729	-0.2	0.888	0.7	0.138	0.2	0.796
Had previous contact with a trans person								
No	Ref.		Ref.		Ref.		Ref.	
Yes	-2.1	0.118	-1.0	0.155	0.5	0.115	0.7	0.081
Group-based dominance	0.7	0.005	0.4	0.000	-0.01	0.072	-0.2	0.024
Egalitarianism	-0.7	0.001	-0.5	0.000	0.2	0.000	0.2	0.009

Ref., reference group