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Reducing Transphobic Attitudes: a Cross-National Investigation of College Students in Japan and the United States

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Reducing Transphobic Attitudes: A Cross-National Investigation of College Students in
Japan and the United States

by

Kazusa Seko

A thesis submitted in partial fulfillment of the
requirements for the degree of

Master of Arts
in
Sociology

Thesis Committee:
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Portland State University
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Abstract

Transgender people routinely experience discrimination and mistreatment. Although transphobic attitudes vary from country to country, a more in-depth understanding of these attitudes is needed. Using a semi-structured online survey, this study investigates college students' attitudes toward transgender people in Japan and the United States, a cross-national comparison that aims to deepen our understanding of how transphobic attitudes are shaped and what opportunities exist to reduce transphobia amongst college students. Results show that Japanese students express more transphobic attitudes than U.S. students do; and that U.S. students had more experience with gender-based educational content and were more likely to know someone who identified as transgender, while most Japanese students learned about transgender people through social media. These findings suggest that gender-based content in higher education courses is useful for reducing transphobic attitudes.

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Table of Contents

Abstract..... i

Acknowledgments ii

List of Tablesv

List of Figures vi

Introduction.....1

SIGNIFICANCE OF THE STUDY3

Literature Review5

SUMMARY OF U.S. AND JAPANESE ATTITUDES TOWARDS TRANSGENDER PEOPLE.....5

FACTORS THAT IMPACT ATTITUDES TOWARDS TRANSGENDER PEOPLE: GENDER, AGE, GEOGRAPHY, EXPOSURE7

IMPROVING ATTITUDES AND REDUCING BIAS.....9

Higher Education’s Impact on Gender Attitudes 10

Higher Education: Reducing Bias for Marginalized Groups..... 11

Methods.....13

RECRUITMENT AND RESEARCH SITES 13

SURVEY TOOL 14

SAMPLE..... 16

DATA ANALYSIS..... 21

Statistical Analyses 21

Qualitative Analyses 23

Findings.....25

QUANTITATIVE RESULTS 25

QUALITATIVE RESULTS..... 31

University Learning: College Courses Enhancement of Positive Attitudes 33

Increased Opportunity to Meet Trans People in College 34

Lack of Education Leads to Misinformation..... 35

SUMMARY STATEMENT OF RESULTS..... 38

Conclusion40

POLICY RECOMMENDATIONS..... 42

LIMITATIONS AND FUTURE RESEARCH 44

References.....46

Appendix A: Survey Questionnaire52

List of Tables

TABLE 1: DESCRIPTIVE STATISTICS (JAPAN & THE U.S. COMBINED).....	18
TABLE 2: DESCRIPTIVE STATISTICS (JAPAN).....	19
TABLE 3: DESCRIPTIVE STATISTICS (THE UNITED STATES).....	20
TABLE 4: LINEAR REGRESSION MODELS PREDICTING ATTITUDES TOWARD TRANSGENDER PEOPLE AMONG JAPANESE AND U.S. STUDENTS	26
TABLE 5: LINEAR REGRESSION MODELS PREDICTING ATTITUDES TOWARD TRANSGENDER PEOPLE AMONG JAPANESE STUDENTS	28
TABLE 6: LINEAR REGRESSION MODELS PREDICTING ATTITUDES TOWARD TRANSGENDER PEOPLE AMONG U.S. STUDENTS	29

List of Figures

FIGURE 1. TOTAL PERCENTAGES OF “STRONGLY AGREE” AND “AGREE” FROM WILLIAMS INSTITUTE REPORT (2018).....	5
FIGURE 2. NUMBER OF RESPONDENTS FOR SHORT ANSWER QUESTION ABOUT ATTITUDES TOWARD TRANSGENDER PEOPLE, STRATIFIED BY COUNTRY	32
FIGURE 3. NUMBER OF RESPONDENTS FOR SHORT ANSWER QUESTION ABOUT KNOWLEDGE, STRATIFIED BY COUNTRY	36
FIGURE 4. NUMBER OF RESPONDENTS FOR SHORT ANSWER QUESTION ABOUT TRANS FIGURE'S IMPACT, STRATIFIED BY COUNTRY	37
FIGURE 5. NUMBER OF RESPONDENTS FOR SHORT ANSWER QUESTION ABOUT FIRST LEARN ABOUT TRANSGENDER PEOPLE, STRATIFIED BY COUNTRY.....	38

Introduction

In recent years, attitudes toward transgender people (i.e., those whose birth sex does not match their gender identity) have become more positive (Worthen 2013, p. 719). A 2018 report by the Williams Institute surveyed attitudes towards transgender people in 27 countries and found global shifts in support of transgender people and their rights, although negative attitudes persist (Ipsos 2018).

The Williams Institute report's findings from Japan and the U.S. suggest interesting cultural differences that warrant further exploration (Ipsos 2018). For example, Japanese people tend to show moderate positivity and less negativity, while Americans tend to think of trans people in either highly positive or highly negative terms, suggesting more polarization of people's attitudes. Across various social and legal questions, the Williams report finds that Americans hold more negative views on transgender people's *social status* but have greater acceptance of *legal rights*. In contrast, Japanese people may have slightly more positive attitudes but are more reluctant to believe trans people should have the same rights as cisgender people.

The unique cultural contexts of both the U.S. and Japan are likely tied, in many ways, to these varied attitudes. The U.S. has a long-standing history of LGBTQ social movement activity, multiple public legal challenges related to transgender people's rights to use restrooms and locker rooms that align with their gender, and several openly transgender public figures. In contrast, Japan lacks the same robust system of organizations and individuals pushing for social and legal protections, and there is far less visibility of transgender people in Japan and a great deal of social stigma (McLelland 2004; Ikuta et al. 2017). Though transgender studies are a growing field, much of this

research has remained focused on one country or engaged in large-scale survey research. Cross-national studies remain an underutilized approach in transgender studies; this paper intends to contribute to the scholarship in this area.

Although previous research has investigated attitudes toward transgender people, comparisons between the U.S. and Japan are lacking (though Elischberger et al. 2018 conducted a comparison between the U.S. and India, so some cross-cultural comparisons between the U.S. and Asian countries do exist). According to Ikuta et al. (2017), the prevalence of transgender students among university students in Japan is 0.8%, higher than in the U.S. (at 0.3% according to the American Psychiatric Association 2017). Although the visibility of transgender people has increased in Japanese media (Ikuta et al. 2017; Ikuta et al. 2018), their visibility in the real world is still very low; 9% of Japanese respondents to the Williams Institute report knew a transgender person and 0% of respondents reported being transgender (Ipsos 2018). In contrast, 38% of U.S. respondents knew a transgender person, and 5% of respondents were transgender (Ipsos 2018). The demographic in Japanese universities reflects a remarkably rapid shift amongst younger Japanese students identifying as transgender, yet research on college student populations and related shifts in attitudes remain underexplored.

Therefore, in this study, I will explore the variation in attitudes towards transgender people amongst college students in the United States and Japan. The proposed study will expand the scholarship on cross-cultural comparisons of college students' attitudes towards transgender people by comparing two distinct cultural settings: Japan and the U.S. This study centers on two main research questions:

1. How do attitudes toward transgender people vary amongst college students in Japan and the U.S.?
2. How have college students in Japan and the U.S. become familiar with transgender people and culture?
3. How does higher education influence college students' attitudes toward transgender people in Japan and the United States?

I explore these research questions using a self-administered online survey of undergraduate students in Japan and the U.S. The data were collected in 2020-21 through an anonymous online survey in both Japanese and English. The survey questions were adapted from the Transgender Attitudes and Belief Scale (TABS), a tool developed by Kanamori et al. (2017), and included some additional short answer questions. More than 300 students completed the survey. In this paper, I find that there are important differences between Japanese and U.S. college student's understanding of transgender people, and I use these data to argue that colleges and universities (through college-level learning, exposure to transgender people, and in creating safe spaces to discuss transgender-related issues) are an important cultural aspect of reducing transphobia.

Significance of the Study

Understanding attitudes towards trans people is necessary because negative attitudes can lead to discrimination, which affects the physical and psychological health of trans individuals (Grossman and D'Augelli 2007; Keuroghlian et al. 2014; American Psychiatric Association 2017). Previous researchers in the U.S. have suggested that

transgender individuals are at higher risk of poorer mental health outcomes than cisgender individuals (Grossman and D'Augelli 2007; Keuroghlian et al. 2014; American Psychiatric Association 2017; Hanna et al. 2019). In a study of transgender youth (age 15 to 21), half of the participants had seriously thought of suicide, and a quarter of them had attempted suicide, both of which were higher rates than LGB youth (Grossman and D'Augelli 2007). In addition, transgender youth, compared to LGB youth, are also at higher risk of homelessness, mental illness, substance abuse, HIV, and violent victimization (Keuroghlian et al. 2014). In both Japan and the United States, adolescents are especially vulnerable to discrimination (Breyer 2017; DiStefano 2008; Grossman and D'Augelli 2007; Ikuta et al. 2018; Keuroghlian et al. 2014; Worthen 2012; McGuire et al. 2010). Therefore, it is essential that research continues to investigate international attitudes towards trans people; any data that clarifies how positive attitudes emerge may indicate where interventions to reduce discrimination and transphobia may have the most impact. This is particularly true in Japan, where this topic remains less well understood.

Literature Review

In order to contextualize current findings on college students' attitudes towards transgender people, it is important to explore the existing literature on these attitudes. I review the literature on U.S. and Japanese attitudes towards transgender people to capture the present situation in each country. Then I assess factors that influence those attitudes and finally discuss approaches to reduce transphobic attitudes.

Summary of U.S. and Japanese Attitudes Towards Transgender People

According to the Williams Institute report (2018), people living in the U.S. tend to have either strongly positive or negative attitudes toward transgender people compared to other countries. For example, most Americans support legal protections for transgender people (73%), gender reassignment surgery (71%), entering the military (65%), conceiving children (70%), or adopting children (64%). At the same time, approximately one-third believe that transgender people commit a sin, have a form of mental illness, or violate their culture. The report also finds that Americans hold more negative views on transgender people's social status but greater acceptance of legal rights (Figure 1).

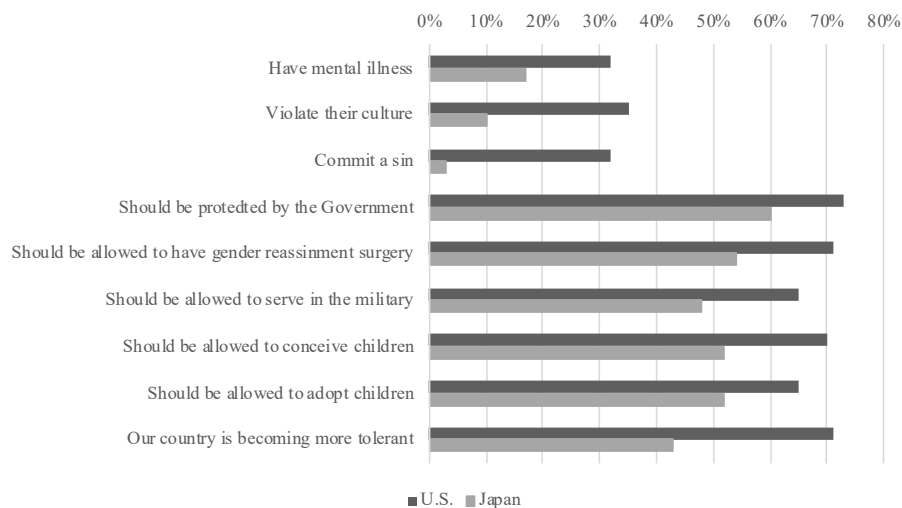


Figure 1. Total Percentages of “Strongly Agree” and “Agree” from Williams Institute Report (2018)

Despite those supportive attitudes toward transgender rights, transgender people are still one of the most vulnerable communities in the United States (Worthen 2012), and discrimination is prevalent in various situations. In 2014, a female-to-male transgender student was denied the right to move into an on-campus dormitory aligned with their gender (Bailey 2014). The same year, a transgender woman was also denied work with the State Department of Corrections because she had not undergone sexual reassignment surgery. Though she was able to resolve the issue with mediation and gain employment, this incident shows that discrimination in the workplace remains an issue in the U.S. (Transgender Law Center 2014). Transgender people are also exposed to discrimination in healthcare settings; an analysis of national survey data shows that transgender people who are recognized as trans by a health care provider experience routine discrimination (Rodriguez et al. 2018). Those discriminatory attitudes negatively impact transgender people's physical and mental health (Grossman and D'Augelli 2007; Keuroghlian et al. 2014; American Psychiatric Association 2017).

The 2018 Williams Institute report finds that Japanese people tend to believe that transgender people are not sinful or mentally ill but are reluctant to support and protect their rights. Japanese college students show similar attitudes; more than 70% of them respect inner gender identity other than the sex assigned at birth and accept coming out from transgender people (Ikuta et al. 2018). In addition, Ikuta et al. (2018) showed that students who had encountered transgender people displayed more knowledge (self-reported), respect, and acceptance for coming out than those who had not. Although the relatively rapid acceptance of transgender people in Japan is remarkable, Japanese trans people have suffered from discrimination and are still a vulnerable population

(McLelland 2004; DiStefano 2008). Recent examples include a court's rejection of a change in the census registration for a group of transgender men in 2001 and the historical belief that trans people are different from "normal" people, all contribute to the repression of trans people's desire to be publicly visible and to pursue legal protections or medical treatments that would allow them to live more authentic lives (McLelland 2004).

Yamazaki et al. (2020) examined how prevalent lectures about sexual and gender minorities are among Japanese medical schools and found that more than 70% of schools they surveyed do not provide lectures about gender minorities. This suggests that transgender visibility in Japan is still low and that Japanese transgender people continue to struggle with coming out, believing they will experience negative responses from friends and family (Tamagawa 2018; Tamagawa 2018; Ishii 2018). Thus, additional research must consider how familiarity with transgender people occurs in Japan to make broader cultural shifts toward acceptance and visibility for trans people.

Factors that Impact Attitudes Towards Transgender People: Gender, Age, Geography, Exposure

Given the variation in global attitudes and the somewhat more positive cultural context for transgender people in the U.S., an exploration of previous research examining the factors that influence attitudes towards gender minorities is relevant. In general, younger people and cisgender women hold more positive attitudes towards trans people (Nagoshi et al. 2008; Worthen 2012; Norton and Herek 2013; Greenburg and Gaia 2019). Religiosity is one of the predictors that previous research has found to have inconsistent results. Although Norton and Herek (2013) reported that religious women, and not men, tend to have more negative thoughts toward transgender people, other scholars found that

greater religiosity significantly predicts negative attitudes toward transgender people (Greenburg and Gaia 2019; Gegenfurtner and Gebhardt 2017). Nagoshi et al. (2019) also found that religious fundamentalism is positively correlated with anti-trans ideologies regardless of gender.

Geography also influences attitudes. The American Psychiatric Association (2017) mapped the prevalence of LGBT people by state. Considering that previous contact with LGBT individuals influences attitudes and that a larger population increases the probability of the previous contact, people in more populated states are more likely to have more positive attitudes toward transgender individuals (Worthen 2012; Norton and Herek 2013). In addition, LGBT individuals in rural areas struggle with disclosure more than those in urban areas (Lee and Quam 2013). Fisher et al. (2014) pointed out that lower levels of social engagement and self-acceptance, lower coming-out rates, and a higher probability of depressive symptoms were seen among transgender individuals in rural areas. Abelson (2016) finds some trans men prefer rural areas where they perceive less harassment than in cities, though she finds that the reported differences did not come from fundamental understanding or respect for transgender people; therefore, challenges persist for increasing the visibility of rural transgender people in the U.S.

Another significant factor in shaping attitudes is exposure, either directly or indirectly, to transgender people (Ikuta et al. 2018; Worthen 2012; Norton and Herek 2013; Barbir et al. 2017; Tadlock et al. 2017; Flores et al. 2018; Gillig et al. 2018). In the U.S., Greenburg and Gaia (2019) found that interpersonal contacts with transgender people positively influence attitudes toward transgender people and that having a transgender friend is correlated with more positive attitudes (Barbir et al. 2017). Among

Japanese college students, those who have encountered transgender people show more positive attitudes toward them than those who have not (Ikuta et al. 2018). The same tendency is observed among U.S. college students and adults; in the United States, those who have LGBT family members or friends show more positive attitudes toward transgender people (Worthen 2012; Norton and Herek 2013; Barbir et al. 2017).

Similarly, the previous contact with transgender people influences people's positive views of transgender rights (Tadlock et al. 2017). Even indirect exposure can change attitudes; Flores et al. (2018) found that participants improved their attitudes toward transgender people after simply being presented with images of transgender and gender-nonconforming individuals; Gillig et al. (2018) discovered that people who watched an episode from a TV storyline that was focused on transgender issues showed more positive attitudes toward transgender people and policies than those who have not (Gillig et al. 2018; Sharma 2020). Positive images of transgender characters in popular media are especially associated with positive attitudes (Sharma 2020).

Improving Attitudes and Reducing Bias

A specific area of interest for this study is the role of higher education and college-level training in reducing negative social attitudes. Social scientists have revealed that lower levels of education are associated with more negative attitudes toward LGBTQ people, suggesting that higher education plays an important role in reducing homophobia and transphobia (Gegenfurtner and Gebhardt 2017). In this section, I review the research that has: 1) explored college or graduate-level education related to transgender people or LGBTQ populations; 2) considered how to improve attitudes or reduce bias towards other minority groups.

Higher Education's Impact on Gender Attitudes

A range of research has explored the impact of education related to gender minorities within the medical field. Cornelius and Carrick (2015) find that more knowledgeable nursing students have more positive attitudes toward LGBTQ people and argue the importance of education. As they point out, education influences their attitudes. After receiving a two-hour session, including a lecture, interactive exercises, discussions, and a film, health care workers improved their knowledge, skills, and attitudes toward LGBTQ people (Bristol et al. 2018). Another study showed that medical students who received a lecture or more than two hours of instruction increased their skills and adopted more positive attitudes toward transgender people (Dowshen et al. 2013). An educational intervention developed by White Hughto et al. (2017) successfully improved cultural competence, knowledge, and willingness to provide care for transgender people among healthcare providers. Not only does in-person education reduce transphobic attitudes, but online education is also effective. A study with a pre-post design intervention found that after participating in an educational webinar, undergraduates and healthcare providers lessened transphobic attitudes (Mizock et al. 2017). Despite these promising findings from the U.S., in 2020 Yamazaki et al. (2020) found that more than 70% of medical schools in Japan did not provide lectures about sexuality and gender minorities. In contrast, a study of 160 U.S.-based emergency medicine residency programs found that nearly 75% provided at least a lecture on LGBTQ topics, while 33% included an LGBTQ-specific curriculum (Moll et al. 2014). While education for medical students is more specialized than general knowledge, increased education (Arora et al. 2016), ally training programs (Worthen 2011), and school environments (Domínguez-Martínez and

Robles 2019) have been found to promote supportive attitudes toward LGBTQ people among general college students.

Even college-level education that is not explicitly tied to an LGBTQ curriculum can positively impact people's gendered attitudes. Taracuk and Koch (2021) found that a "media intervention" amongst college undergraduates in the U.S. in which students watched a gender-inclusive episode of the show *Star Trek* reported more positive views of transgender and gender diverse individuals compared to those who watched a standard episode of the show, suggesting that media interventions in the college classroom can also contribute to greater acceptance of marginalized groups. Relatedly, Madžarević and Soto-Sanfiel (2019) examined the relationship between appreciation of a gay-friendly film and homophobia among college students. They found that students with a greater appreciation of the film reduced homophobic attitudes.

A study by Ikuta et al. (2018) shows a relationship between knowledge and attitudes toward transgender people among Japanese college students: Students who believe they have sufficient knowledge on transgender people have more positive attitudes than those who do not have knowledge do. Therefore, empowering students to understand LGBTQ topics, even if they are not part of the queer community, can help to reduce bias, improve attitudes, and increase visibility for gender and sexual minority students.

Higher Education: Reducing Bias for Marginalized Groups

Research on higher education's capacity to reduce bias applies to the current study as findings of the impact of various classroom training or interventions may be transferable to the context of transgender people. Racism is one of the most significant

social issues in the United States, and previous research suggests that education can help to reduce racist attitudes (Hochman and Suyemoto 2020; Soble et al. 2011; Rivas 2020). Soble et al. (2011) find that showing a video clip about racism increases awareness of racism among White students. Rivas (2020) administered pre-post design research to investigate the effect of ethnic studies courses on racial biases. The author showed that racist attitudes were significantly reduced among European American male students after 16-week class sessions (Rivas 2020). In addition, nursing students' negative attitudes toward migrants improved by receiving a specialized curriculum designed to increase cultural understanding (Sánchez-Ojeda et al. 2020). An additional year of schooling also lowers negative attitudes toward immigrants, linking higher educational outcomes to more cultural sensitivity and less bias (Margaryan, Paul, and Siedler 2021).

Although previous research has begun to examine the relationship between higher education and more accepting attitudes towards racial and sexual or gender minorities, further exploration of the role of higher education in reducing transphobia is warranted, particularly in the cross-cultural context, and with a specific emphasis on transgender people.

Methods

Drawing from an online survey of undergraduate students in Japan and the U.S., this paper investigates attitudes toward transgender people in a cross-cultural context. The data were collected through an anonymous online survey administered through Qualtrics in both Japanese and English. I excluded anyone who was not a college student and could not take an online survey in either Japanese or English. Online surveys were utilized because of the COVID-19 pandemic and a lack of in-person recruitment opportunities.

Recruitment and Research Sites

This study utilized convenience cluster sampling by recruiting students from larger, lower-level social science and art undergraduate courses. Data were collected at Teikyo University and Nihon University in Tokyo, Japan, and Portland State University, Oregon. These universities were adequate for comparison because those had something in common, such as the size (large, approximately 25,000 students) and the place (liberal and urban area) where various types of students were enrolled.

Between December 2020 and January 2021, a request email was sent to professors in each university to share the survey link with their students. A total of 1,622 students received the survey link, and 360 students responded to the survey (22.19% response rate). At Portland State, the recruitment information was shared in the undergraduate sociology newsletter, which reaches 631 students. One hundred thirty students at PSU completed the survey, suggesting a response rate of 20.6%. The actual response rate may be slightly lower, as some additional faculty or students likely shared the email. For the Japanese universities, I contacted two faculties in Teikyo University

and one faculty in Nihon University. Each class included 520, 421, and 50 students, and they all received the survey link. With 230 responses from Japanese students, a response rate was assumed to be 23.21%.

Survey Tool

The survey questions were adapted from the Transgender Attitudes and Belief Scale (TABS), a tool developed by Kanamori et al. (2017). A total of 37 questions were asked. Of the 37 questions, nine asked participants' demographic information such as age, gender, racial/ethnic identity, and others. The other 28 questions included 23 multiple choice and five open-ended questions. The TABS uses a scale numbered assessment from 1 (Strongly Agree) to 5 (Strongly Disagree) and is relevant to measure attitudes toward transgender people in more generalized situations. In addition, this scale categorizes the questions into three factors (interpersonal comfort, sex/gender beliefs, and human value), capable of measuring attitudes toward transgender people from different perspectives. Questions about interpersonal comfort measure the extent to which a person is comfortable sharing personal space with transgender people. For example, this category includes a question "I would feel comfortable having a transgender person into my home for a meal." The sex/gender beliefs category measures how a person understands sex or gender is. Questions such as "Whether a person is male or female depends upon whether they feel male or female" are included in this category. The human value category measures the extent to which a person evaluates transgender people's human value. For example, "Transgender individuals are valuable human beings regardless of how I feel" is included in this category.

Building on the TABS survey approach, I revised and adapted scale-based questions to reflect student status. For example, for the question “I would be uncomfortable if my boss was transgender,” “my boss” was changed to “my teacher.” “My child” in the question “If my child brought home a transgender friend, I would be comfortable having that person into my home” was changed to “my family member” because many college students may be less likely not to have a child. A question that includes a “housemate” was excluded because a shared house is not typical in Japan. I excluded a question related to full-time work, given the student status of all participants. I additionally supplemented two new questions that were relevant to my research questions. For the close-ended questions, I added a question asking about attitudes toward transgender use of public bathrooms, one of the most public debates around transgender rights in the U.S. In addition, a question, “I would feel comfortable dating a transgender person,” was added to measure whether a respondent considers transgender people’s gender according to their gender identity. The full survey is included in the Appendix.

After adding the supplemented questions, I calculated the Cronbach’s alpha to know the reliability level, using data analysis software Stata. With the additional questions, the reliability was still high ($\alpha=.91$).

A total of five open-ended qualitative questions were also presented after all the close-ended questions in order to allow more in-depth answers and to offer more opportunities for cross-national comparisons. The questions were written in order to get at how people learn about and understand transgender issues. Two questions were related to exposure (how they first learned about transgender people and named famous transgender individuals). If respondents knew any famous transgender individuals,

respondents were asked the impacts of those public figures on their attitudes toward transgender people. Another question asked about the impacts of the university setting on the respondent's attitude toward transgender people. The final question covered more general attitudes toward transgender people ("What do you feel about transgender people today"). Demographic questions, including age, gender, race/ethnicity, religion, and a city and state they grew up in, were also asked to explore variations across the sample. Informed consent was gathered from all participants prior to the start of the survey.

All the questions, including close- and open-ended questions, were originally written in English. In order to adapt this survey for Japanese respondents, a two-level translation was completed. First, I translated the survey questions, and the questions were then examined by a Japanese woman who has been a U.S. citizen for more than 20 years. Both the woman and I are fluent in English and Japanese.

Sample

With a total of 360 responses, I excluded students who did not answer the question of primary interest to this study: their attitude toward transgender people. This resulted in an analytic sample of 306; 194 students from Japanese universities (77 men, 103 women, and 14 non-binary) and 112 students from the U.S. (22 men, 84 women, and six non-binary). Six students in the Japanese sample and seven students in the U.S. sample identified as transgender. 32 Japanese students (16.49%) and approximately half of the U.S. sample (49.11%) answered they were definitely or probably a member of LGBTQIA+. Attitudes ranged from one to five, with one as the minimum. In this study, a smaller value indicated reduced transphobia. Although students in both countries had relatively positive attitudes toward transgender people, Japanese students were more

transphobic ($M=1.77$, $SD=0.55$) than U.S. students ($M=1.32$, $SD=0.35$). The Japanese sample was predominantly Japanese (97.42%) and a small number of other racial/ethnic groups (2.58). Half of the U.S. sample was White (50.00%) and included Black/African American (4.46%), Latinx (14.29%), Asian (13.39%), multiracial (15.18%), and other race/ethnicity groups (2.68%). The age of the Japanese participants ranged from 18 to 41 ($M=20.32$, $SD=2.11$) with six missings, and the U.S. participants were from 18 to 62 ($M=25.90$, $SD=9.28$). A majority of the participants in both countries were atheistic (89.18% for Japanese and 58.04% for Americans). The Japanese respondents' religious affiliation included Catholic/Christian (0.52%), Buddhism (7.73%), Shinto—a religion that originated in Japan—(1.55%), and others (1.03%). The U.S. sample included Catholic/Christian (22.32%), Buddhism (7.14%), Jewish (1.79%), Muslim (2.68%), and others (8.04%). In both countries, more than half of the respondents grew up in urban areas (59.79% for Japanese and 63.39% for Americans).

Table 1: Descriptive Statistics (Japan & the U.S. combined)

	Mean/ Frequency	SD/ Percentage	Range
Attitudes	1.61	(0.53)	[1.00,5.00]
<i>Demographic Factors</i>			
Age	22.37	(6.44)	[18,62]
Gender identity:			
Male	99	32.35	[0,100]
Female	187	61.11	[0,100]
Non-binary	20	6.54	[0,100]
Identify as Trans	13	4.25	[0,100]
Identify as LGBT	87	28.43	[0,100]
Religion:			
Atheistic	238	77.78	[0,100]
Catholic/Chistian	26	8.50	[0,100]
Buddhism	23	7.52	[0,100]
Jewish	2	0.65	[0,100]
Muslim	3	0.98	[0,100]
Shinto	3	0.98	[0,100]
Others	11	3.59	[0,100]
Geography:			
Urban	187	61.11	[0,100]
Suburban	58	18.95	[0,100]
Rural	22	7.19	[0,100]
Others	39	12.75	[0,100]
<i>Social Factors</i>			
Personally know trans	188	61.44	[0,100]
Close trans	102	33.33	[0,100]
Students (n)	306		

Notes: All values in parentheses are standard deviations

Table 2: Descriptive Statistics (Japan)

	Mean/ Frequency	SD/ Percentage	Range
Attitudes	1.77	(0.55)	[1.00,5.00]
<i>Demographic Factors</i>			
Age	20.32	(2.11)	[18,41]
Gender identity:			
Male	77	39.69	[0,100]
Female	103	53.09	[0,100]
Non-binary	14	7.22	[0,100]
Identify as Trans	6	3.09	[0,100]
Identify as LGBT	32	16.49	[0,100]
Race:			
Japanese	189	97.42	[0,100]
Others	5	2.58	[0,100]
Religion:			
Not religious	173	89.18	[0,100]
Catholic/Christian	1	0.52	[0,100]
Buddhism	15	7.73	[0,100]
Shinto	3	1.55	[0,100]
Others	2	1.03	[0,100]
Geography:			
Urban	116	59.79	[0,100]
Suburban	27	13.92	[0,100]
Rural	19	9.79	[0,100]
Others	32	16.49	[0,100]
<i>Social Factors</i>			
Personally know trans	97	50.00	[0,100]
Close trans	56	28.87	[0,100]
Students (n)	194		

Notes: All values in parentheses are standard deviations

Table 3: Descriptive Statistics (the United States)

	Mean/ Frequency	SD/ Percentage	Range
Attitudes	1.32	(0.35)	[1.00,5.00]
<i>Demographic Factors</i>			
Age	25.90	(9.28)	[18,62]
Gender identity:			
Male	22	19.64	[0,100]
Female	84	75.00	[0,100]
Non-binary	6	5.36	[0,100]
Identify as Trans	7	6.25	[0,100]
Identify as LGBT	55	49.11	[0,100]
Race:			
White	56	50.00	[0,100]
Black/African American	5	4.46	[0,100]
Latinx	16	14.29	[0,100]
Asian	15	13.39	[0,100]
Multiracial	17	15.18	[0,100]
Others	3	2.68	[0,100]
Religion:			
Not religious	65	58.04	[0,100]
Catholic/Chistian	25	22.32	[0,100]
Buddhism	8	7.14	[0,100]
Jewish	2	1.79	[0,100]
Muslim	3	2.68	[0,100]
Others	9	8.04	[0,100]
Geography:			
Urban	71	63.39	[0,100]
Suburban	31	27.68	[0,100]
Rural	3	2.68	[0,100]
Others	7	6.25	[0,100]
<i>Social Factors</i>			
Personally know trans	91	81.25	[0,100]
Close trans	46	41.07	[0,100]
Students (n)	112		

Notes: All values in parentheses are standard deviations

Data Analysis

Data analysis for this study combined quantitative analysis of closed-ended questions in STATA and qualitative data analysis of open-ended questions in Dedoose. Although this is not necessarily a true mixed-methods project, I wanted to capture all the relevant information from the open-ended survey questions by coding these data in Dedoose.

Statistical Analyses

Descriptive statistics showed the mean/frequency, standard deviation/percentage, and range of the sample. Regression analysis was used to show how demographic factors related to attitudes toward transgender people. Three separate models were estimated for Japanese participants, U.S. participants, and combined. Independent variables included seven demographic factors (age, gender identity, whether they self-identify as transgender, whether they self-identify as LGBTQIA+, race, religion, where they grew up) and two social factors that measure exposure (whether they personally know transgender individuals and whether they have close friends or family who are transgender). For a sample with students in one country, some inapplicable categories of demographic factors were omitted. For example, the Japanese sample only included Japanese and “Other” for the race category because more than 95% of the Japanese sample was Japanese while the U.S. sample had White, Black/African American, Latinx, Asian, Multiracial, and Other. Besides that difference, all models used the same factors as independent variables.

Some variables were recoded for analyses. The TABS employed some reverse-worded questions in order to avoid the acquiescence bias. Therefore, I recoded to reverse

those questions to create a scale for the dependent variable. The question that measured whether they self-identify as LGBTQIA+ originally had four possible answers; however, I recoded it dichotomously, with one indicating yes. Open-ended questions were employed for measuring race, religion, and where they grew up (geography). The race included a variety of categories, but I recoded them into six categories for the U.S. sample and two categories for the Japanese sample. Also, to compare Japanese and U.S. attitudes toward transgender people, I created a dummy variable for each country. I recoded respondents' unique religious affiliation into seven categories. Shinto is usually included in "Other." However, this study considers it an independent category because Shinto originated in Japan and is one of the common religions in Japan. Geography was recoded into four categories (urban, suburban, rural, and others) according to definitions provided by Welfare and Medical Service Agency (WAM) (2021) and United States Census Bureau (2021). The definition by WAM was used for the Japanese sample. According to WAM, an urban city is where the population is a million or more, or the population density is two thousand per square kilometer or more, a suburban city is where the population is 200,000 or more and fewer than a million, or the population is 100,000-200,000 and the population density being two hundred per square kilometer or more, and a rural city is where both definitions are not applicable. U.S. Census defines the categories according to population; an urban area has 50,000 or more inhabitants, a suburban area with a population of 2,500 or more and fewer than 50,000, and a rural area with fewer than 2,500 inhabitants. Places where all the definitions were not applicable (e.g., other countries) were considered as others. The social factors were asked with four

levels in the survey, but I recoded them dichotomously, with one indicating yes for analyses.

Qualitative Analyses

Open-ended survey questions were analyzed in the Dedoose qualitative data analysis program using an inductive approach (Thomas 2006). More than 95% of U.S. respondents answered at least one of the short answer questions; roughly three-quarters of Japanese respondents answered at least one short answer question. Not every person responded to every short answer question, but I report the frequencies of responses in the discussion below. I translated all the Japanese questions and responses into English before data analysis, then uploaded the data into Dedoose. I read through the English and translated responses multiple times, and then I identified six principal codes that emerged from the data: Attitudes, Exposure, Famous person, Learning, Perception of transgender people, and Social Change. I briefly summarize these codes below.

Attitudes: Was a statement made in response to a question positive, negative, or neutral? Attitudes codes were mainly tied to the final open-ended question: “How do you feel about transgender people today?” Attitudes were coded as positive if respondents supported transgender rights or used positive words (e.g., “people should accept them” or “they are great people”). In contrast, if respondents used judgmental phrases, such as “they are overthinking,” those responses were coded as negative. Responses that showed neither positive nor negative attitudes were coded as neutral (e.g., “all people are equal”).

Exposure: This code identified how respondents learned about transgender people and included four sub-categories: Family/Friends, (Social) Media (includes TV, movie, news, books, and online), School, and Other.

Famous person: This code captured the impact of famous transgender figures, including whether respondents’ knowledge of those famous people was accurate (e.g., did they incorrectly state that Sam Smith was transgender when they are

non-binary?) and how important the person was in their understanding of other transgender people.

Learning: This code captured relevant information about the role of universities in educating students about transgender people. This code included responses directly related to education about transgender topics (i.e., classes) and indirectly (i.e., being in a class with a transgender person who increased a respondent's understanding of transgender people).

Perception of transgender people: This code captured whether respondents discussed transgender topics from individual or social-level perspectives. An "Individual Perspective" sub-code was applied when respondents shared their personal attitudes toward transgender people (e.g., I love them). Responses that discussed macro-level transgender issues or attitudes such as "the public understanding is not enough" were coded as Social-level.

Social change: This final code captured how respondents perceived transgender social change efforts. This code included three minor codes: Better Than the Past; Too Much Push/Change Is Too Fast; and What Change or Support Needed. Responses such as "transgender people have been gradually accepted" were coded as Better Than the Past. Too Much Push or Change Is Too Fast was applied to responses that showed negative attitudes toward social changes (e.g., we worry too much about them). When respondents shared supportive attitudes such as "I wish to increase learning opportunities," the What Support or Change Needed tag was applied.

Findings

The quantitative findings demonstrate that: 1) Japanese college students express more transphobic attitudes than U.S. college students do; 2) some demographic factors are associated with either positive or negative attitudes toward transgender people in both countries or one country; 3) personally knowing transgender people is associated with reduction of transphobic attitudes among Japanese college students. The qualitative survey data support the quantitative findings and suggest that universities play an important role in reducing transphobic attitudes. Given these findings, I argue that gender-based education is an essential element for reducing transphobia.

Quantitative Results

Table 4 shows results from a linear regression analysis examining attitudes toward transgender people among both Japanese and U.S. students. This study measures transphobic attitudes by 5-point-Likert-scale questions, one being the minimum. Therefore, increased values indicate more transphobic attitudes and vice versa. Compared to the U.S. students, Japanese students have significantly more transphobic attitudes ($p < .001$). Participants' transphobic attitudes increase by 0.28 on average when they are in Japanese colleges. Within the other demographic factors, being female ($p < .001$) and self-identifying as LGBT ($p < .01$) are correlated with reduced transphobia, which is consistent with previous research. In addition, those who personally know transgender people tend to show less transphobic attitudes than those who don't: When they know transgender people personally, their transphobic attitudes decrease 0.27 on average ($p < .001$).

Table 4: Linear regression models predicting attitudes toward transgender people among Japanese and U.S. students

	Coef.	P-value	(SE)
<i>Demographic Factors:</i>			
Country:			
Japan	0.28 ***	0.000	(0.07)
The United States (ref)	-		
Gender:			
Male (ref)	-		
Female	-0.25 ***	0.000	(0.06)
Non-binary	-0.15	0.233	(0.12)
Identify as trans	-0.14	0.305	(0.14)
Identify as LGBT	-0.23 **	0.001	(0.07)
Age	0.00	0.734	(0.00)
Religion:			
Not religious (ref)	-		
Catholic/Christian	0.14	0.163	(0.10)
Buddhism	-0.02	0.840	(0.10)
Jewish	-0.01	0.964	(0.31)
Muslim	0.43	0.101	(0.26)
Shinto	-0.25	0.317	(0.25)
Other	-0.09	0.535	(0.15)
Geography:			
Urban (ref)	-		
Suburban	-0.03	0.700	(0.07)
Rural	-0.16	0.101	(0.10)
Other	0.04	0.629	(0.08)
<i>Social Factors:</i>			
Personally know trans	-0.27 ***	0.000	(0.06)
Close trans	-0.04	0.572	(0.06)
Constant	1.81 ***	0.000	(0.15)
R-squared	0.39		
Students	306		

Notes: All values in parentheses are standard deviations
 $p^+ < 0.10$, $p^* < 0.05$, $p^{**} < 0.01$, $p^{***} < 0.001$.

Table 5 shows coefficients from a linear regression model in the Japanese sample and Table 6 for the U.S. sample. Whereas being female is associated with reduced transphobic attitudes among Japanese students ($p < .001$) and the combined sample, the

U.S. sample does not have the same tendency. Being a member of an LGBT community is significantly correlated with reduced transphobia in all sample groups. Their transphobic attitudes decrease 0.23 on average when they are LGBT in all sample groups. Latinx ($p < .05$) and multiracial students ($p < .1$) show significantly less transphobic attitudes compared to White students in the U.S. sample. In contrast, “Other” racial groups tend to have transphobic attitudes in both Japanese and U.S. samples. Although no religious group shows the significant difference in the combined U.S. and Japanese samples, Catholic/Christian ($p < .01$) and Muslim ($p < .1$) religious backgrounds are significantly associated with more transphobic attitudes as compared to Atheists among U.S. students. Similarly, only U.S. students who grew up in areas that were not categorized as rural/urban/suburban but classified as “other areas” show significantly transphobic attitudes ($p < .01$). Japanese students who personally know transgender people have significantly less transphobic attitudes than those who do not ($p < .01$). Interestingly, this association is not statistically significant in the U.S. sample: Transphobic attitudes decrease by 0.31 on average when they are Japanese who know transgender people personally.

Table 5: Linear regression models predicting attitudes toward transgender people among Japanese students

	Coef.		P-value	(SE)
<i>Demographic Factors:</i>				
Gender:				
Male (ref)	-			
Female	-0.27	***	0.000	(0.08)
Non-binary	-0.18		0.329	(0.19)
Identify as trans	-0.08		0.747	(0.24)
Identify as LGBT	-0.23	+	0.053	(0.12)
Age	0.01		0.762	(0.02)
Race:				
Japanese (ref)	-			
Others	0.68	**	0.004	(0.23)
Religion:				
Not religious (ref)	-			
Catholic/Christian	-0.17		0.730	(0.48)
Buddhism	-0.02		0.910	(0.13)
Shinto	-0.25		0.377	(0.28)
Other	-0.48		0.178	(0.36)
Geography:				
Urban (ref)	-			
Suburban	-0.02		0.822	(0.11)
Rural	-0.19		0.107	(0.12)
Other	-0.13		0.231	(0.11)
<i>Social Factors:</i>				
Personally know trans	-0.31	**	0.001	(0.09)
Close trans	-0.03		0.805	(0.06)
Constant	2.06	***	0.000	(0.35)
R-squared	0.32			
Students	194			

Notes: All values in parentheses are standard deviations
 p+ < 0.10, p* < 0.05, p** < 0.01, p*** < 0.001.

Table 6: Linear regression models predicting attitudes toward transgender people among U.S. students

	Coef.	P-value	(SE)
<i>Demographic Factors:</i>			
Gender:			
Male (ref)	-		
Female	-0.06	0.462	(0.08)
Non-binary	-0.09	0.559	0.16
Identify as trans	0.02	0.881	(0.14)
Identify as LGBT	-0.23 ***	0.000	(0.06)
Age	-0.00	0.614	(0.00)
Race:			
White (ref)	-		
Black/African American	0.09	0.538	(0.15)
Latinx	-0.21 *	0.036	(0.10)
Asian	0.00	0.969	(0.11)
Multiracial	-0.17 +	0.050	(0.08)
Others	0.40 +	0.054	(0.21)
Religion:			
Not religious (ref)	-		
Catholic/Christian	0.27 **	0.001	(0.08)
Buddhism	-0.02	0.891	(0.13)
Jewish	0.12	0.573	(0.21)
Muslim	0.37 +	0.067	(0.20)
Other	0.05	0.644	(0.12)
Geography:			
Urban (ref)	-		
Suburban	0.05	0.463	(0.07)
Rural	0.07	0.709	(0.18)
Other	0.39 **	0.003	(0.13)
<i>Social Factors:</i>			
Personally know trans	-0.05	0.568	(0.08)
Close trans	-0.05	0.414	(0.07)
Constant	1.52 ***	0.000	(0.16)
R-squared	0.44		
Students	112		

Notes: All values in parentheses are standard deviations
 p+ < 0.10, p* < 0.05, p** < 0.01, p*** < 0.001.

Overall, the quantitative survey data indicate three major findings. First, Japanese students have more transphobic attitudes toward transgender people as compared to U.S.

students. Second, some demographic factors are correlated with more transphobic attitudes: self-identifying as LGBTQ is associated with reduced transphobia in both countries. In Japan, being female is a predictor of less transphobic attitudes, and *not identifying* as Japanese is correlated with more transphobic attitudes than the larger sample of Japanese-identified students. Among U.S. respondents, Latinx and Multiracial students have less transphobic attitudes than White students, while students with other racial identities have more transphobic attitudes than White students do. In addition, religion matters in the U.S.; Catholic/Christian and Muslim students have more transphobic attitudes than Atheists. Additionally, geography matters, with findings suggesting that students who grew up in urban areas have less transphobic attitudes. Finally, personally knowing someone who is transgender is a predictive factor of reduced transphobia only for Japanese students. Since the factor has the largest effect size of all variables with statistical significance associated with positive attitudes, interpersonal exposure to transgender people can be considered one of the most critical factors that improve attitudes toward transgender people among college students in Japan.

Those findings suggest that U.S. students have environmental factors that reduce transphobic attitudes, which Japanese students do not. Environmental factors, in this case, mean factors surrounding college students, not individual demographic factors. Those individualistic factors do make differences *within* a country but do not influence in the combined sample. The interesting finding of the quantitative data is that interpersonal contact has an impact only on Japanese students. This suggests that U.S. students have another social factor that has more substantial impacts on their attitudes than

interpersonal contact, which Japanese students do not have. The qualitative data from open-ended questions partly explain what differentiates their attitudes.

Qualitative Results

The qualitative data complement the quantitative findings. First, of all the open-ended responses concerning attitudes in both Japan and the United States (n=251), ONLY Japanese students (N=22) showed negative attitudes toward transgender people, and no U.S.-based students expressed a negative attitude in an open-ended question. A Japanese cisgender female student expressed negative attitudes toward a college that respects transgender people and transgender people themselves:

I don't like a college atmosphere that excessively respects transgender people, excusing its diversity. I am completely tired of a climate where transgender people label the majority as an enemy and be narcissistic about minority status.

Moreover, more than half of the U.S. students showed positive attitudes toward transgender people, whereas approximately one-third of Japanese responses did so.

Second, the majority of negative attitudes came from respondents who do not personally know transgender people. In contrast, more than half of the positive attitudes in the short answer questions were written by respondents who personally know transgender people.

Those results were consistent with quantitative findings.

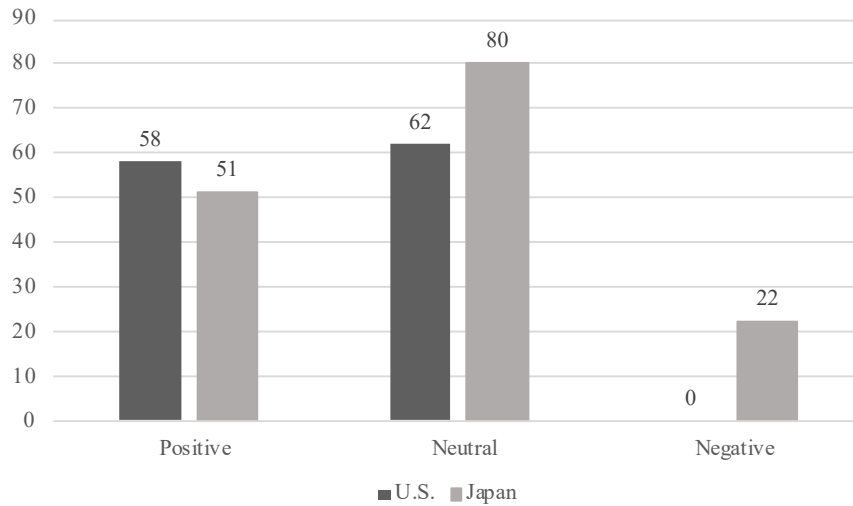


Figure 2. Number of Respondents for Short Answer Question about Attitudes toward Transgender People, Stratified by Country

Additional findings from open-ended questions also suggest that college courses covering gender topics can enhance positive attitudes; colleges create increased opportunity to meet trans people, which in turn is linked to more positive attitudes; and a lack of college-level gender-based education leads to misinformation about trans people, as demonstrated by the fact that many Japanese respondents misunderstood transgender identities, and also attended a university that does not have gender-based courses frequently offered. The total number of short answer responses about the impacts of being in the university setting was 65 for the U.S. sample and 45 for the Japanese sample. When coded into smaller categories, these data showed that the most commonly discussed topics were college courses (31 for the U.S. and 23 for Japan) and the larger college environment, specifically the opportunity to meet people (20 for the U.S. and 13 for Japan). In reporting my findings below, I focus on the most common responses in both countries (Learning and Meeting Trans People).

University Learning: College Courses Enhancement of Positive Attitudes

The qualitative data, however, suggests unique findings that were not indicated in the quantitative data. That is the importance and influence of (college) education on attitudes toward transgender people. Whereas 45 out of 194 Japanese respondents learn about transgender people in a university, 65 out of 112 U.S. students do so. About half of all students who learn about transgender people in both countries shared experiences in a class or lecture. For example, a cisgender female student aged 28 in the U.S. college expressed new experience:

I took a few women's studies classes that touched on gender identity. Definitely opened my eyes to my own ignorance. I grew up in a Christian household where my family didn't aggressively hate on trans people, but rather preferred to keep their distance because they 'just didn't understand it.'

Similarly, a 21-year-old non-binary student in the Japanese college pointed out the difference between college learning and online information: "I feel we are able to touch the background such as knowledge or history, which we would not have known through the internet." Also, a 20-year-old cisgender straight student in the Japanese college noted that "I had only known transgender as a name of some people and never got involved, but I would like to accept them since I learned about them in this college lecture."

College learning is a critical factor that reduces transphobia for both students who have knowledge of transgender people and those who do not. On the one hand, college learning can deepen their understanding for students who already have relatively positive attitudes. On the other hand, students with more negative attitudes can improve their attitudes through college learning if transphobia derives from a lack of knowledge. College learning is particularly effective for students who do not have knowledge because it broadens their perspectives, as students in this study mentioned.

Increased Opportunity to Meet Trans People in College

A university provides an opportunity to meet transgender people personally. This is one of the essential roles of a university since interpersonal exposure is an influential factor in attitudes. A 19-year-old female student who identified as LGBTQIA+ shared college experience as “I have been able to interact with more people who identify as trans or non-binary, and therefore be able to understand their experience better.” The same tendency was seen in Japanese college students. For example, a 20-year-old cisgender female student who identifies as LGBTQIA+ shared increased awareness after meeting transgender people in a college: “I would be more open-minded because of overwhelmingly increasing opportunities that I actually get involved with transgender people and sexual minorities.” Approximately one-third of students in both countries pointed out that meeting transgender people in college impacted their attitudes.

Some respondents mentioned that a university setting increases the opportunity to be exposed to transgender topics. Such as a 20-year-old cisgender female student in the U.S. college who identify as LGBTQIA+ answered that “Portland State's setting is much more liberal and understanding over things like sexuality and gender than where I'm originally from, so being here has given me exposure and education on those topics more.” A Japanese college student aged 18 cisgender straight female also stated that “I have considered about it more often since I entered college and heard a lot of opinions about transgender topics.” As those students pointed out, a university is a more open space where various discussions arise compared to K-12 education. Of all students who mentioned university impacts, approximately a quarter of U.S. respondents and a third of Japanese respondents mentioned the importance of university settings.

An interpersonal contact positively influences students' attitudes, providing them with more personal experiences or thoughts. Students can consider transgender issues more closely, which increased knowledge alone may not be able to. As the quantitative data suggest, interpersonal contact is a significant factor in reducing transphobia particularly for Japanese students. Due to the low visibility, Japanese students have fewer opportunities to meet transgender people than U.S. students. Therefore, an increased opportunity is a vital role of college, particularly for Japanese students.

Lack of Education Leads to Misinformation

The qualitative data suggest that lack of education leads to incorrect knowledge about transgender people. The online survey provided definitions of transgender and cisgender people for participants who might not know who transgender people are. For the question "Can you name any famous transgender public figures? If yes, name them," about half of the 96 Japanese respondents who answered the question listed non-transgender people such as public figures who dress in drag or gay people even with the definitions, whereas only one out of 88 U.S. students provided non-transgender people.

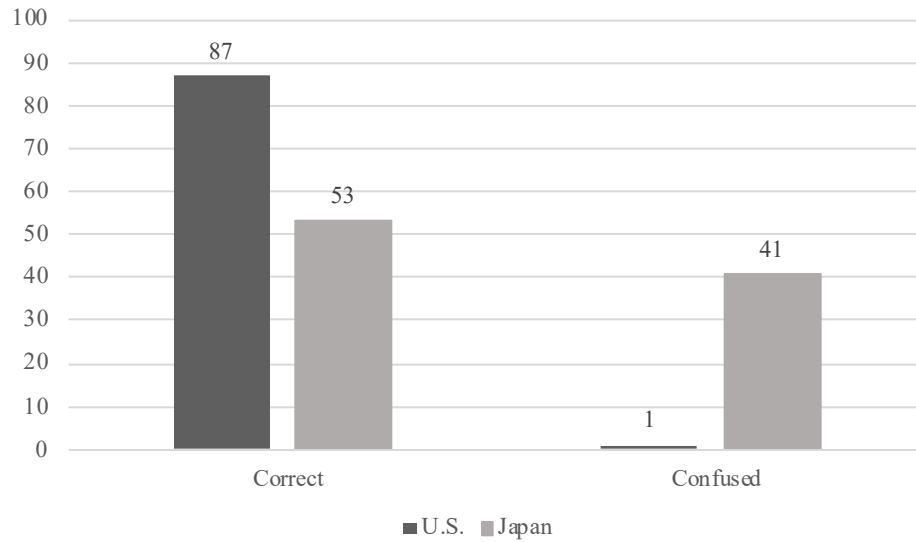


Figure 3. Number of Respondents for Short Answer Question about Knowledge, Stratified by Country

Similarly, some Japanese students’ short answers demonstrated transphobic or trans-exclusionary statements. For example, a 19-year-old cisgender female Japanese student who identifies as LGBTQIA+ shared a trans-exclusionary view, writing:

In the news, I saw a transgender person trapped into a traditional gender ideology, “being a woman by cross-dressing.” The pain that transwomen have received and that ciswomen have received is different. I feel that something is wrong with discussing it in the same field. I can understand “transwomen are women,” but I am deeply concerned that transwomen are taking away conventional women’s positions.

Given the lack of college-level gender education in Japan, this student formed many opinions from popular news media rather than being directly exposed to transgender people or topics. Another Japanese student, a cisgender straight male aged 22, believed transgender people are mentally ill: “I feel sorry for them because I understand it as a disease. I wish they could have been born with the sex that matches their gender identity.”

In contrast, U.S. respondents typically reported that the impact of a transgender public figure was increased knowledge of transgender people, as a 22-year-old white cisgender straight female answers that “It made me better understand what kind of struggles transgender people face in different social contexts.” For U.S. students, college-level courses had often provided enhanced opportunities for exposure and learning about transgender topics, so the reliance upon transgender celebrities as a primary source of information and learning was diminished.

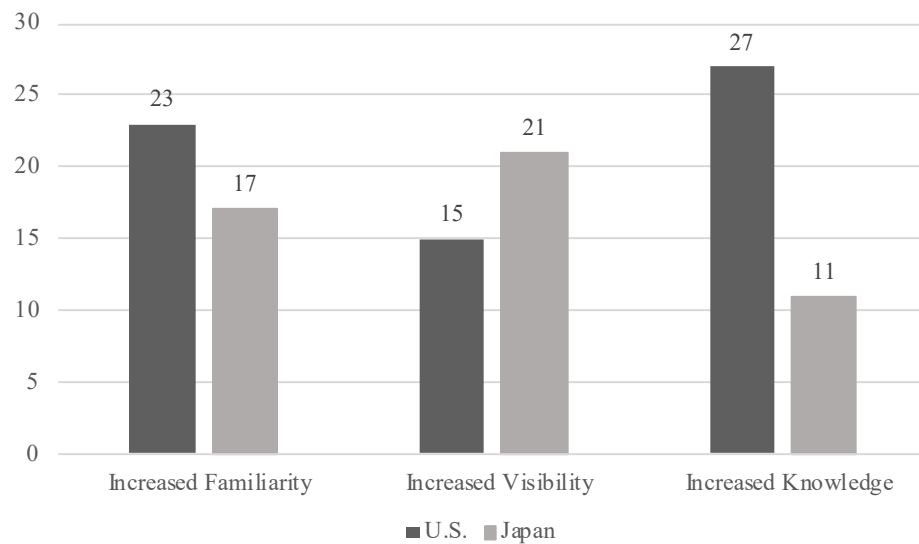


Figure 4. Number of Respondents for Short Answer Question about Trans Figure's Impact, Stratified by Country

One of the notable differences between Japan and the United States was how they first learned about transgender people. Whereas answers of U.S. respondents are roughly distributed, 136 out of 147 Japanese respondents first learned about transgender people from social media. Although social media increases the visibility of transgender people in Japan, it does not provide in-depth knowledge about them. This suggests that Japanese college students have few reliable resources to learn about transgender people, which leads to confusion and misunderstanding.

The qualitative findings suggest that college has important roles that reduce transphobia by providing education and opportunities to be exposed to transgender people and discussion. Although students in both countries mentioned that those positively influenced their attitudes, lack of knowledge among Japanese students suggests that Japanese college education about transgender people and culture is not prevalent compared to U.S. college as previous research suggests. Lack of education leads to misunderstandings and confusion, which often results in negative attitudes toward transgender people.

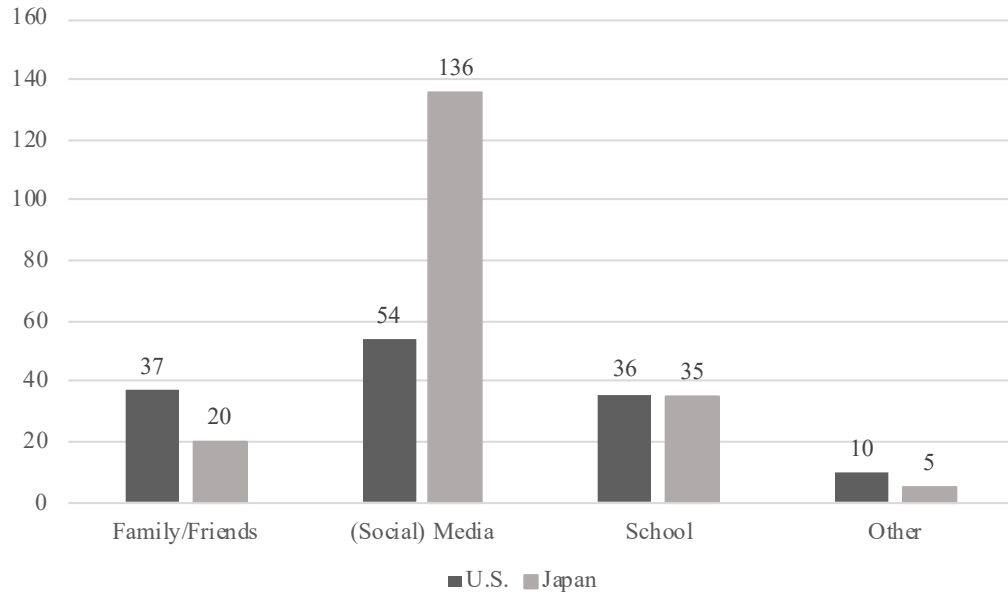


Figure 5. Number of Respondents for Short Answer Question about First Learn about Transgender People, Stratified by Country

Summary Statement of Results

The quantitative data shows that Japanese college students have more transphobic attitudes than U.S. college students do, and exposure to transgender people is associated with a reduction in transphobic attitudes, especially among Japanese students. Qualitative results supplement the quantitative findings: U.S. college students have more

opportunities to learn and meet transgender people than Japanese students, which suggests U.S. students have more appropriate knowledge and more positive attitudes. Taken together, this means that higher education has an important role to play in reducing transphobia, particularly in Japan.

Conclusion

This study aims to deepen our understanding of college students' attitudes toward transgender people in the United States and Japan, using quantitative multiple-choice questions and qualitative short answer questions. The quantitative data show that Japanese students have more transphobic attitudes compared to U.S. students and that exposure to transgender people and gender-based education are key factors in reducing transphobia. The qualitative data partly explain the quantitative results. It suggests that U.S. students are more likely to personally know transgender people, have a better sense of LGBTQ culture and are more likely to have had discussions in a university about LGBTQ topics than Japanese students are; helping to explain why attitudes towards trans people amongst Japanese college students may be more negative.

One of the critical differences is that U.S. students reported viewing transgender people the same as other people——such as “I respect them like everyone else” —— while Japanese students tended to see trans people as special or different, often in a negative way. Because transgender and gender-based education are not prevalent in Japan, their source of information is mainly social media that sometimes leads to misunderstandings. For example, Matsuko-deluxe is a person whom many Japanese students named as a famous transgender figure, but he publicly came out as a *joso-ka* (which translates to “cross-dresser” in English), and he identifies as a gay man who prefers male pronouns, not as someone who is transgender. Almost all confused Japanese students mentioned his name because he has received significant media exposure as an LGBTQ person, and they did not fully understand the difference between sexual or gender minorities, *joso-ka*, and transgender people. A 21-year-old cisgender straight male

student in the Japanese sample critically pointed out educational issues in Japan and showed a supportive attitude:

I feel the prejudice and discrimination toward transgender people firmly remain (even though the efforts have gradually progressed). Personally, I consider that those problems occur because few people know who transgender people are. In the future, I wish to increase learning opportunities about the way “gender” ought to be, including transgender, and I want to consider what I can do to put it into practice.

Although U.S. students also obtain information from the media, they have a clearer understanding of who transgender people and other sexual/gender minorities are due to richer learning opportunities and a different cultural landscape. A 33-year-old cisgender woman in the U.S. college appreciated university settings that impact her attitudes toward transgender people:

I’m able to grasp an appropriate understanding of transgender identities. I also have been exposed to material that expanded my knowledge and understanding of this identity and the hardships it may bring in today’s societal expectations of what is the norm in gender.

Obviously, a college education is not the only source for correct information for U.S. students: the accuracy of media information and transgender people around them as an information resource would make the difference. However, the findings of this study suggest that college education is a reliable place in which to learn about transgender people. One U.S. transgender respondent shared a feeling toward transgender public figures:

I have mixed feelings about modern trans representation; I think it’s heading in the right direction but I feel generally cringe about most trans public figures, [I don’t know] if that’s me projecting or just having weirdly high standards for how I expect or want trans public figures to act/be like.

Transgender public figures have contributed to increasing familiarity, visibility, and knowledge of transgender people, and their experience impacts attitudes toward transgender people. However, as this person pointed out, transgender public figures may not always be the best representation of transgender communities, which can also lead to broader misunderstandings of queer and trans culture and individuals. College education can provide more reliable research-based information and knowledge, which reduces transphobic attitudes.

Policy Recommendations

In closing, I would like to suggest some recommendations to reduce transphobia in Japan and the U.S. First, gender-based learning in college-level classes (not only transgender-studies classes but also ones that cover transgender issues such as women and gender studies) are shared in U.S. colleges. Many U.S. survey respondents mentioned that those classes deepen their understanding or open their eyes. However, studies have found that cisgender men are less likely to take those classes, and previous research points out that men are more likely to have negative attitudes toward transgender people (Nagoshi et al. 2008; Worthen 2012; Norton and Herek 2013; Greenburg and Gaia 2019). Indeed, positive responses about college classes in the U.S. sample mainly were from cisgender women or non-binary respondents.

Thus, requiring gender-based courses or including gender studies in more general courses would be suggested for U.S. colleges. In contrast, few Japanese colleges have classes about gender and sexual minorities (Yamazaki et al. 2020). Therefore, the first step would be to increase topical courses or encourage faculty to add lectures about gender and sexual minorities to their classes. A meta-analysis of diversity training by

Bezrukova et al. (2016) found that long-term, integrated (instead of standalone) training that aims to increase both awareness and skills is more effective. Therefore, I suggest that incorporating transgender topics into a mandatory class of each student's field (e.g., transgender issues from a psychological view, from a humanities view, from a legal studies view) so that students can learn with interest and, ideally, keep raising the topic throughout their college learning. Utilizing this method, homophobic and transphobic attitudes in the U.S. may be reduced.

Secondly, training educators is essential to providing comprehensive gender education. A 26-year-old transgender respondent in the U.S. survey pointed out that negative attitudes from people who are supposed to support transgender people: "As a transgender person, I've learned how many ways allies and researchers can still be transphobic. We rarely get acknowledged." Therefore, diversity training for educators needs to be established. A meta-analysis of the effects of cultural diversity training for pre-service teachers emphasizes that diversity training positively impacts teachers' cultural beliefs, and more theory-based training is preferred (Civitillo et al. 2018). Combined with the knowledge on characteristics of practical training (Bezrukova et al. 2016), developing an educational program that raises awareness and skills for both working teachers and pre-service teachers is recommended. Not only for transgender people but also other diverse populations, mandatory training is preferred.

Finally, colleges are not the only places to provide transgender education, but earlier education is also essential. Warin and Price (2020) argue that discussions of transgender identity in early education are beneficial in protecting transgender children from bullying and confusion and in growing awareness amongst young children. A 19-

year-old cisgender Japanese survey respondent reported that they first learned about transgender people from a transgender figure on TV when she was a child and shared their memory of that time; “I thought they were ‘odd people’ when I was a naïve child, but now I liked them after knowing they are funny and lovely people.” Although she changed her attitudes positively since her childhood, she also believed society is too sensitive to transgender people. With a combination of appropriate early and college education, they may not have thought of transgender people as “odd” nor had negative attitudes toward cultural changes. As mentioned above, social media may deepen misinformation, yet it is a massive resource for information on transgender people, especially in Japan. In addition, it is important to note that college education is not accessible to everyone. Early education before misunderstanding is constructed and to reach a broader population is critical and strongly suggested.

Limitations and Future Research

The primary limitation of this study is low generalizability. This study used convenience sampling in order to maximize the number of participants. Using convenience sampling, the results of this study cannot generalize to a broader population outside these two university settings. Another limitation is that the majority of participants were recruited by contacting social science professors. Students in these professors’ classes may already be more tolerant and accepting of transgender people than those majoring in other fields. The U.S. university, Portland State University, also has a much more politically liberal and queer-friendly cultural context than the rest of the U.S. In addition, approximately half of the U.S. sample self-identified as LGBTQ, which could partly explain friendlier attitudes of U.S. students. However, the fact that negative

or problematic attitudes persisted and that many students appreciated increased knowledge and awareness even in these more welcoming contexts suggests that relevant conclusions may still be drawn from these data.

This study contributes to the literature by understanding the differences in college students' attitudes toward transgender people between Japan and the United States and finds that gender-based education is a critical factor in reducing transphobic attitudes. This study is one of the few studies that explore transgender topics in a Japanese context, and the literature on the cultural aspects of transphobia is still underdeveloped. Therefore, future research could focus on more cross-cultural investigation, especially in Asian countries. Ethnographic research that investigates the present situation of Japanese transgender students could further the field of transgender studies in Japan. Another potential direction is the perspective of the gender educators; how do they teach these topics? How do they combat the misinformation created by the media? Since this study's findings suggest the importance of education to reduce transphobia, future research should examine education or media interventions or strategies to increase understanding and awareness of trans-related issues.

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Appendix A: Survey Questionnaire

Demographics

1. What is your age?
2. What is your gender identity?
3. Do you identify as transgender?
4. What is your racial or ethnic background?
5. Do you have a religion affiliation? If so, what?
6. Do you identify as LGBTQIA+?
7. Where did you grow up?
8. Do you know any transgender people personally?
9. Do you have any close family or friends who are trans?

Interpersonal Comfort

1. I would feel comfortable having a transgender person into my home for a meal.
2. I would feel comfortable being in a group of transgender individuals.
3. I would feel uncomfortable working closely with a transgender person in my workplace.
4. I would feel uncomfortable if my teacher was transgender.
5. If I knew someone was transgender, I would still be open to forming a friendship with that person.
6. I would feel comfortable if my next-door neighbor was transgender.
7. If my family member brought home a transgender friend, I would feel comfortable having that person in my home.
8. I would be upset if someone I'd known for a long time revealed that they used to be another gender.
9. If I knew someone was transgender, I would tend to avoid that person.
10. I would feel uncomfortable finding out that I was alone with a transgender person.
11. If someone I knew revealed to me that they were transgender, I would probably no longer be as close to that person.
12. If I found out my doctor was transgender, I would want to seek another doctor.
13. I would feel comfortable if transgender people use public bathrooms that are consistent with their gender identity.
14. I would feel comfortable dating a transgender person.

Sex/Gender Beliefs

15. Whether a person is male or female depends upon whether they feel male or female.
16. If you are born male, nothing you do will change that.
17. Whether a person is male or female depends strictly on their genitalia.
18. Humanity is only male or female; there is nothing in between.
19. All adults should identify as either male or female.

Human Value

20. Transgender individuals are valuable human beings regardless of how I feel.

21. Transgender individuals should be treated with the same respect and dignity as any other person.
22. I would find it highly objectionable to see a transgender person being teased or mistreated.
23. Transgender individuals are human beings with their own struggles, just like the rest of us.

Open-ended Questions

1. How did you first learn about transgender people? (e.g., family, friends, television, books, news, school, church)
2. In what ways, if any, has being in a university setting impacted your understanding of people who are transgender?
3. Can you name any famous transgender public figures? If yes, name them.
4. If you know of any transgender public figures, how did the visibility of these people impact your perspective on transgender people?
5. How do you feel about transgender people today?