USE OF A MEDIA INTERVENTION TO INCREASE

POSITIVE ATTITUDES TOWARD TRANSGENDER

AND GENDER DIVERSE INDIVIDUALS

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Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
August, 2020

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ACKNOWLEDGEMENTS

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Date of Degree: AUGUST 2020

Title of Study: USE OF A MEDIA INTERVENTION TO INCREASE POSITIVE ATTITUDES TOWARD TRANSGENDER AND GENDER DIVERSE INDIVIDUALS

Major Field: COUNSELING PSYCHOLOGY

Abstract: As issues related to transgender and gender diverse individuals gain more national media attention, professional organizations that promote mental health and LGBTQ+ rights continue to advocate for equality and inclusion. Barriers to equality and inclusion for transgender and gender diverse individuals can include a variety of factors including discrimination in educational and workplace settings, and issues related to housing, poverty, and homelessness. A total of 233 students from a large, Midwestern university participated and received an intervention along with pre- and post-testing. A split-plot factorial ANOVA to investigate potential differences in attitudes and beliefs towards transgender and gender diverse individuals using the Transgender Attitude and Beliefs Scale indicated a statistically significant interaction based on a media intervention where $F(1, 109) = 7.042$, p = .009. A split-plot factorial ANOVA to investigate potential differences in willingness to engage in social action on behalf of this population measured by the Social Justice Scale did not indicate a statistically significant interaction based on the media intervention where $F(1, 109) = .881$, p = .350. These findings suggest that a variety of potential media interventions can increase positive attitudes and beliefs toward marginalized groups, but a stronger and/or additional intervention is needed to for participants to engage in social action on behalf of the group. Implications and limitations to the study are discussed.

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CHAPTER ONE

INTRODUCTION

As issues related to transgender and gender diverse individuals gain more national media

attention, professional organizations such as the World Professional Association for Transgender

Health (Coleman et al., 2012), American Psychological Association (2015), Human Rights

Campaign (2018), and the American Counseling Association (Burnes et al., 2010) promote the

mental health and advocate for the equality, inclusion, and the rights of lesbian, gay, bisexual,

transgender and queer (LGBTQ+) individuals. *Transgender* is a term used to describe anyone for

whom the physical sex assigned at birth is persistently incorrect, incomplete or incongruent with

that individual's own description, while *cisgender* is a term to identify those who experience

congruence between physical sex and their own individual identity (American Psychiatric

Association, 2013; Nadal, Skolnik, & Wong, 2012). Transgender can often be used as an

umbrella term to describe anyone who identifies as gender diverse, or anyone who views their

own gender identity as fluid and/or on a continuum. Transphobia is a term to describe "emotional

disgust" toward individuals who do not align to "society's gender expectations" (Hill &

Willoughby, 2005, p. 533).

Previously, psychologists and psychiatrists used the diagnosis of *gender identity disorder*

to describe and pathologize, which is to identify as an abnormality or unhealthy, anyone with a

cross-gender identification (Green, 2010). Gender identity disorder was previously identified as a

sexual disorder and first added to the Diagnostic and Statistical Manual of Mental Disorders in

its third edition in 1980 (DSM-III; American Psychiatric Association, 1980). Gender identity disorder, and being transgender itself, is no longer considered psychopathology or to be a mental disorder per the American Psychiatric Association with the advent of the most recent DSM, the fifth edition published in 2013 (American Psychiatric Association, 2013). *Gender dysphoria* exists in the Diagnostic and Statistical Manual of Mental Health Disorders, Fifth Edition (DSM-5) to describe the distress that might be associated with the incongruence between one's assigned gender and one's expressed gender (American Psychiatric Association, 2013).

However, the World Health Organization still lists gender identity disorder in the current edition of the International Statistical Classification of Diseases and Related Health Problems (ICD), an international classification system for coding and billing in health systems (World Health Organization, 1992). While there are several minor revisions or country-specific updates, the ICD has not been globally updated since 1992 (National Center for Health Statistics, 2012). There is a recommendation by a current working group to update the terminology in the forthcoming ICD revision and to revise the diagnosis to "gender incongruence" (Reed et al., 2016). Though no longer pathologized by many health professionals in published materials, significant amounts of discrimination exist from the public towards individuals who identify as transgender (James et al., 2016).

Overall, there has been some positive change regarding the acceptance of LGBTQ+ individuals in the recent decades; there has been increased representation in the entertainment industry in films and television shows in the past decade such as *The Kids Are Alright*, *Milk*, *Carol* and *Transparent* (Gilbert et al., 2010; Jinks, Cohen, & Van Sant, 2008; Karlsen, Woolley, & Vachon, 2015; Soloway & Sperling, 2014). Legal protections have increased quality such as the Supreme Court upholding same-sex marriage in June 2015 (*Obergfell v. Hodges*, 2015).

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However, most of these positive changes are focused toward sexual and affectual orientation minorities. Transgender and gender diverse individuals often face barriers and challenges that sexual orientation minorities might not face (Buck & Obzud, 2018).

The rampant violence in the US against transgender and gender non-conforming individuals is of concern. Of the nearly 28,000 respondents involved in a 2015 national survey on the experiences of transgender individuals, 46% of respondents reported being verbally harassed and 9% reported being physically attacked (James et al., 2016). In the same survey, 47% of respondents reported being sexually assaulted at some point in their lifetime while 10% reported being sexually assaulted within the past year (James et al., 2016). A 2011 national survey reported that 90% of respondents identified experiencing harassment, mistreatment or discrimination at work while 53% of respondents reported being verbally harassed or disrespected in a public place (Grant et al., 2011). In the same 2011 survey, 57% of respondents in the same survey reported experiencing family rejection (Grant et al., 2011). Family rejection has been shown to result in increased risk for homelessness, as well as increased likelihood of substance use and suicidality (James et al., 2016; Robinson, 2018).

Overall, gender and sexual minority individuals are more likely to experience disparities in receiving health services (Dilley, Simmons, Boysun, Pizacani, & Stark, 2009). These disparities can include increased cost for medical care and issues with obtaining accurate official documentation (Mizock & Hopwood, 2018). Lack of physician knowledge is a major issue for transgender and gender diverse individuals as it is often not covered in medical school curriculum (Thomas & Safer, 2015). A review of over a dozen articles demonstrated negative attitudes held by health care professionals toward LGBTQ+ individuals (Dorsen, 2012).

Media Interventions

One method that could change public attitudes and prevent violence is through the use of media. Documentaries have been used in classrooms to increase awareness and sensitivity towards specific fields of scientific study, to change mood and voting intentions, and to influence foreign policy attitudes (Barbas, Paraskevopoulos, & Stamou, 2009; Koopman et al., 2006; Nadeau, 2011). In one study, researchers utilized pre- and post-testing and focus group interviews with a documentary intervention to evaluate attitudes about educational practices (Jensen, Janak, & Slater, 2012). While utilizing a relatively small sample size of 27 participants and not incorporating a control group for comparison, the researchers found that watching a documentary altered participants' beliefs about teachers' unions, the importance of effective teachers, and beliefs about charter schools.

Another researcher discussed how media can be used as an intervention to increase awareness around barriers in healthy family development (Ballard, 2012). In another study, two researchers used movies and films with teachers and clinicians to alter and improve attitudes and feelings of anxiety related to topics of death and dying (Niemiec & Schulenberg, 2011). Previous researchers have also demonstrated the effect of fictional narratives on increasing participants' ability to understand emotion and theory of mind in others (Black & Barnes, 2015). Darnell and Cook (2009) predicted that showing a film would decrease street harassment and increase empathy towards women. While the team did not find significant results with their participants, they did recognize there might be methodological issues influencing their results, including social desirability bias.

There can be public health components involved with a media intervention as well. One group of scholars looked at the impact a teenage documentary series had on beliefs and attitudes about teenage pregnancy (Aubrey, Behm-Morawitz, & Kim, 2014). The researchers ultimately

found that participants who identified themselves to be similar to the subjects of the series perceived themselves to be at a lower risk for pregnancy. However, the researchers identified the need for more experimental control including a pre-test, as well as identifying that the documentary series had inconsistent and sometimes contradictory messages which might have led to glamorizing teen pregnancy.

There are occupational uses of a media intervention as well, such as researchers using a media intervention to assist in changing medical students' perceptions about cadavers, beliefs about donors, and attitudes towards dissection (Dosani & Neuberger, 2016). Using a pre- and post-test with their 77 participants, the researchers identified that participants' perceptions and attitudes about cadavers and dissection changed after viewing a film. Another group of researchers looked at genetic counselors' and genetic counseling students' perceptions of mental health and stigma, and whether watching a documentary could change these perceptions (Anderson & Austin, 2012). Participants completed a pre-test, and the post-test at two different points after viewing the documentary; one immediately after viewing the film and one approximately one month later. Though not utilizing a control group, the researchers identified that participants had significant decreases in negative stereotypes regarding individuals with mental illness. In another study, researchers recommended using films as a media intervention to educate medical professionals on family dynamics (Alexander & Waxman, 2000). They used the films to guide discussions, but did not incorporate any statistical analysis, experimental control, or pre- and post-testing. The authors only reported their own experiences and successes.

Researchers have looked at the impact of feature films and documentaries on the audience's perceptions of mental health by helping reduce social distance and increasing help-seeking attitudes (Conrad et al., 2014). Conrad et al. studied over 500 individuals, pooled into

four different groups, each with a different film. Using the same measure for all participants in pre- and post-testing, they were able to evaluate participants' beliefs towards individuals with mental illness. They found that two films improved attitudes in their respective participant group. In another study, researchers examined whether a film about schizophrenia could change cognitive, affective, and behavioral aspects of stigmatization (Thonon, Pletinx, Grandjean, Billieux, & Larøi, 2016). These researchers used pre- and post-testing with a group of participants who watched a documentary film and compared those participant results with a control group receiving no intervention. The researchers had a small sample of 49 individuals across both groups, but found that those who watched the documentary film had a decrease in certain negative stereotypes about individuals with schizophrenia. Another previous study sought to determine whether participants' levels of empathy or ageist attitudes changed after watching a documentary about older adults (Laganá, Gavrilova, Carter, & Ainsworth, 2017). Participants in the experimental group demonstrated an increase in post-test empathy scores after watching the documentary.

With regards to addressing multicultural attitudes towards a particular group, one researcher looked at the effects of viewing a documentary on racial attitudes and whether it can decrease prejudice (Root Meyer, 2009). Utilizing a Solomon four-group design, the author found there were not significant differences between groups after the viewings, but the author noted that the overall sample size was a limitation to the study. However, the author also noted that many participants who viewed the target film identified the educational importance of the documentary and felt other students ought to view the film. In another study with an effort to better understand multicultural education, one group of scholars used an investigative journalism documentary as an intervention to determine if the viewing would change racial attitudes among

White students (Soble, Spanierman, & Liao, 2011). The group found significant differences in variables between the experiment and control group, including lower racial colorblindness scores and higher White empathy and White guilt in the experimental group. Although Soble et al. utilized a control group, they did not utilize a pre-test in their process and thus could only compare the two groups. They did not identify change within each group.

Researchers examined the effectiveness of using theater performances to measure the impact on college students' attitudes towards LGBT individuals (Iverson & Seher, 2014). Using a pre- and post-test with over 480 participants, the authors identified significant changes in attitudes of the viewers. These changes included significant increases in positive attitudes towards lesbian women and general attitudes towards LGBT individuals in the overall participant sample. One limitation of this study is the absence of a control group for use in comparing participant group responses. A strength of this study is the use of an open-ended question asked after the performance to qualitatively gauge participant changes in reported and potential behaviors that support members of the LGBT community. Based on the results of the responses, the authors reported there was potential in the performance's ability to influence social action. These responses included participants' desire to seek out more information, educate others, and a self-reported increase in likelihood to actively engage in LGBT ally behaviors. However, the authors recommended use of a scale evaluating social desirability bias in future studies.

Social Justice

The goal of some media interventions might be to change negative attitudes in order to ultimately advance social justice. *Social justice* is "a vision of society in which the distribution of resources is equitable and all members are physically and psychologically safe and secure" (Bell, 1997, p. 3). Social justice involves fairness in "resources, rights and treatment" for individuals

and groups that do not share equal power in society because of a specific multicultural identification including race, age, gender, sexual orientation, and physical ability (Constantine, Hage, Kindaichi, & Bryan, 2007, p. 24). A different concept, *belief in a just world*, is the idea that individuals "get what they deserve and deserve what they get" (Lipkus & Siegler, 1993, p. 465). Those who believe in a just world feel that individuals who "suffer an injustice must either have acted in a manner to deserve such an outcome or possess personal qualities befitting someone who should experience negative outcomes" (Lipkus & Siegler, 1993, p. 465). Generally, it is difficult to believe in the need for social justice and have a high belief in a just world. To admit that discrimination, prejudice, and systemic oppression exist would be opposite of believing that we live in a just and orderly society (Lipkus & Siegler, 1993).

Using a media intervention to potentially change attitudes is a beneficial step toward this vision of advancing social justice, but a corresponding change in behavior and action is necessary to fully contribute to the physical and psychological safety and security of all individuals. To bring about social justice, individuals might need to engage in behaviors and concrete actions that interrupt systemic oppression and patterns of ongoing discrimination. These actions can include a variety of steps including direct behavior, engaging in community organization, and political activities. These active behaviors can be defined as *social action*, which are individual or collective behaviors that change injurious conditions to vulnerable populations (Mondros & Wilson, 1994). These social actions can contribute to the vision of a socially just society with two components: an increase in the well-being of all people and a decrease in oppression and discrimination. This vision would reflect an enhanced well-being for transgender and gender diverse individuals, and a reduction in violence against transgender and gender diverse individuals.

In an academic domain, Vera and Speight (2003) utilized Buckley's social justice in education model (1998) to apply multicultural competence and practice in the teaching of social justice to students. They postulate that in order to contribute to a socially-just world, individuals need to actively engage in behaviors that bring about this world (Vera & Speight, 2003). Torres-Harding, Siers, and Olson (2012) applied Ajzen's theory of planned behavior (1991) toward a social justice-related model where beliefs and attitudes about norms would theoretically impact an individual's intent to engage in social justice-related actions. The authors believed that social justice-related behaviors are directly predicted by one's own intentions; these intentions are predicted by attitudes, subjective norms surrounding that action, and the individual's perceived behavioral control. The authors found a significant correlation between attitudes and behavioral intentions in a study of undergraduate and graduate students.

Past researchers demonstrated that using a media intervention can change potential future behaviors, such as the use of documentaries to change mood and possible adjustment in participants' future voting intentions (Koopman et al., 2006). Researchers examined how a play, *The Laramie Project*, could address heteronormativity and homophobia among students in teacher education courses (Elsbree & Wong, 2007). A sample of 89 participants attended the play and read additional material, viewed a documentary, and participated in a class discussion. The researchers measured participants' awareness, comfort, knowledge, attitudes, and actions with regards to LGBTQ issues. There were some significant changes in t-scores for pre-service teachers on measures regarding awareness about LGBTQ issues. These included positive changes on specific measure items such as "In LGBTQ relationships, one partner assumes 'male' characteristics and the other 'female' characteristics" and "Gay Straight Alliance clubs should be offered in schools" (Elsbree & Wong, 2007, p. 107). However, the researchers also recognized

that their findings were limited by the use of self-report data. Another limitation of this study is the absence of a control group for comparison between groups, as well as the use of multiple activities in the research design. There are no data supporting that it was the play itself as opposed to any other activity or combination of activities that resulted in the change.

Mulvey and Mandell (2007) looked at how the same play could be used to discourage homophobia, increase dialogue, and increase visibility and acceptance of LGBTQ+ students. Though they explored the impact of the play as a case study, they did not implement a particular research design with experimental control nor include any statistical analysis. The scholars used post-performance exit surveys to inquire about demographics of the audience members and to obtain other information relevant to the project such as how audience members heard about the play. However, they did not include any quantitative measures to evaluate change in attitudes. The authors had two associates lead a post-performance discussion forum for some audience members. In the discussion, individuals conversed about a variety of topics including the effects of intolerance, the use of terminology to describe members of the LGBTQ+ community, and the parallels between the participants' town and the town that serves as the setting of the play. The authors stated that "many issues rarely spoken about in public forums on campus were discussed openly" in the post-performance discussion (Mulvey & Mandell, 2007, p. 135). The authors reported that the forum led to discussion on "the importance of finding ways to put social justice topics in the "public eye" (Mulvey & Mandell, 2007, p. 135).

Attitudes Towards Transgender and Gender Diverse Individuals

A media intervention can be useful in a variety of ways, including providing information and education, but an intervention to change attitudes could serve as more meaningful in increasing social justice-related behaviors that contribute to increasing equality in the long term.

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An attitude is a "predisposition to like or dislike that entity, presumably with approach or avoidance consequences" (Krosnick, Judd, & Wittenbrink, 2005, p. 22). While attitudes can be broadly defined, an attitude is a mental state that can exert a "dynamic influence upon the individual's response to all objects and situations with which it is related" (Allport, 1935, p. 784).

Researchers of past studies incorporated efforts to change people's attitudes toward a variety of topics. In one study, after an intervention, researchers identified a reduction in favorable attitudes for corporal punishment for children (Perrin, Miller-Perrin, & Song, 2017). Another team of researchers suggested that students' attitudes about being able to make meaningful changes in society positively increased after participating in a service learning project (Cooper, Cripps, & Reisman, 2013). Green and Dorr (2016) identified a positive increase in attitudes towards older adults after participating in a simulation replicating the effects of older age on the body (Green & Dorr, 2016). In another study, the researchers examined attitudes about smoking and found that a specific type of intervention was useful in changing attitudes in their participants (Macy, Chassin, Presson, & Sherman, 2015). Holmes, Corrigan, Williams, Canar, and Kubiak (1999) measured whether participants' beliefs about schizophrenia changed after they received educational courses and found a significant difference in pre- and post-testing for the experimental group with regards to beliefs about individuals with schizophrenia (Holmes, Corrigan, Williams, Canar, & Kubiak, 1999).

Previous literature regarding attitudes towards the LGBTQ+ community include a study that examined attitudes held by college students. Although no intervention was utilized, the authors identified that the participant variables of female gender, identification as a member of the LGBTQ+ community, age, and the number of years spent at a university were strong

contributors to overall positive attitudes (Copp & Koehler, 2017). Two researchers examined the attitudes held by social work graduate students regarding LGBT military policy, marital equality, and LGBT discrimination (Dessel & Rodenborg, 2016). The researchers found that participants who completed a cultural competency course increased in recognition of LGBT discrimination, but did not change attitudes about military policy or marital equality (Dessel & Rodenborg, 2016). One researcher found that the presence of a gay-straight alliance in high schools was a positive predictor of supportive attitudes toward LGBT individuals (Worthen, 2014). Another team of researchers found that participants having LGBT friends, taking courses with social justice content, and having affirming attitudes toward LGBT individuals were some of the variables that significantly predicated whether a participant would intervene as a bystander when witnessing overt discriminatory behaviors (Dessel, Goodman, & Woodford, 2017).

While previous literature has focused on the LGBTQ+ community as a whole, less research exists specifically focused on changing attitudes toward transgender and gender diverse individuals. Grigoropoulous and Kordoutis evaluated a variety of variables predicting negative attitudes towards transgender individuals (2015). The researchers found that gender, political conservatism, religiosity, and attitudes towards same-sex relationships were significant predictors of negative attitudes in undergraduate students (Grigoropoulous & Kordoutis, 2015). One team of researchers evaluated participants' reactions to vignettes and visual images for a corresponding change in discomfort, transphobia, and attitudes towards transgender rights (Flores et al., 2018). They found that participants exposed to the treatment condition reported less discomfort and transphobia, but almost no change in attitudes towards transgender rights (Flores et al., 2018). Carabello (2016) created a film to use as a media intervention to address negative attitudes towards transgender individuals in the workplace, but reported that the study

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did not include enough participants to adequately address statistical power. White Hughto et al. (2017) developed an educational intervention for health care providers in correctional settings (White Hughto et al., 2017). The authors found that after the intervention, participants demonstrated a statistically significant increase in cultural competence, affirming medical knowledge, and awareness of subjective norms related to transgender care (White Hughto et al., 2017). Mizock et al. (2017) administered pre- and post-testing with subjects who participated in a webinar. This team found that transphobic attitudes significantly reduced from the pre-test to the post-test scores after completion of the educational and informational webinar (Mizock et al., 2017).

Measures of attitudes and beliefs

Past scholarly work has focused on the development of measuring a cisgender individual's attitudes towards transgender and gender diverse individuals. Morrison et al. identified over 80 scales that measure transphobia or attitudes towards transgender individuals (Morrison et al., 2017). However, Billard (2018) critiqued that none of the existing measures of attitudes towards transgender individuals sufficiently demonstrated scale reliability, factor structure, and content, criterion, or construct validity (Billard, 2018). Previously published measures include the Genderism and Transphobia Scale, the Transphobia Scale, and the Attitudes Towards Transgender Individuals scale (Hill & Willoughby, 2005; Nagoshi et al., 2008; Walch, Ngamake, Francisco, Stitt, & Shingler, 2012). The most recently published measure is the Transgender Attitudes and Beliefs Scale (Kanamori, Cornelius-White, Pegors, Daniel, & Hulgus, 2017).

Social Action

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Social justice can be defined as "the promotion of equity for all people and groups for the purpose of ending oppression and injustice" (American Counseling Association, 2014, p. 21). Behaviors that promote social justice, which we define as social action, are capable of bringing about change on individual and macro-level systems (Prilleltensky, 2001). These changes may ultimately help increase equality for all people and groups along with a reduction in oppression and injustice.

A range of literature exists on behaviors that promote social justice. One team of researchers suggested that empathy predicts engagement in social justice-related behaviors (Mallett, Huntsinger, Sinclair, & Swim, 2008). A team of researchers suggested that students were more likely to engage in altruistic and social justice-related behaviors after a service learning opportunity (Cooper et al., 2013). Certain professions incorporate these behaviors and principles into their work; scholars outlined specific social justice principles that should guide counselor behaviors (Goodman et al., 2004).

Measures of social action

Various measures were created to evaluate the various array of behaviors that constitute social action. Both the Activity Scale and the Activism Orientation Scale measure behaviors related to political activities such as evaluating a respondent's likelihood to donate money to a political candidate or boycott a product for political reasons (Corning & Meyers, 2002; Kerpelman, 1969). The Social Justice Advocacy Readiness Questionnaire was developed in 2001, but focuses on the readiness of individuals in the field of social services to provide culturally competent practice instead of the general population (Chen-Hayes, 2001). The Social Issues Advocacy Scale was developed in 2011, but focuses primarily on behaviors on the macro-systemic levels such as political and community-wide interventions (Nilsson, Marszalek,

Linnemeyer, Bahner, & Misialek, 2011). Torres-Harding, Siers and Olson developed the Social Justice Scale (SJS) to specifically measure "favorable attitudes towards intentions to engage in social action" (Torres-Harding, Siers, & Olson, 2012, p. 80). Torres-Harding et al. found that a higher social justice orientation was correlated with lower racism, sexism and beliefs associated with a just-world mentality (2012).

The goal of this study was to see whether a simple intervention can increase positive attitudes towards a marginalized group along with a corresponding increase in positive intention to engage in social action by participants. By identifying simple interventions that can produce significant outcomes, the efforts to decrease discrimination can be drastically advanced in our communities. This simple intervention could have major implications which could include decreasing discrimination as well as hate crimes, bullying, and violence against transgender and gender diverse individuals. The implications of this study will help determine the impact that a concentrated effort to reduce bias and transphobia could have on the research participants. This study could ultimately assist in developing prevention efforts that will reduce future discrimination along with the potential violence and murder of transgender and gender diverse individuals.

The research questions were as follows:

1. Does watching a media intervention have a statistically significant increase on a person's attitudes and beliefs towards transgender and gender diverse individuals?

Hypothesis 1: Individuals who receive the media intervention will show a statistically significant increase in positive attitudes towards transgender and gender diverse individuals.

2. Does watching a media intervention have some statistically significant increase on a person's willingness to engage in social action on behalf of a transgender or gender diverse individual?

Hypothesis 2: Individuals who receive the media intervention will show a statistically significant increase in willingness to engage in social action.

CHAPTER II

METHODOLOGY

Students at a large university in a mid-southwest region of the US comprised the sample of participants. Participants were recruited through flyers posted on bulletin boards throughout campus with a QR code linking them to the study, through targeted emails to faculty and students, and through the use of the university's online SONA research system. All participants were at least 18 years of age or older.

Regarding recruitment efforts, self-selection bias is when individual respondents are allowed to decide for themselves whether or not they wish to participate in research (Bethelehem, 2010). Based on ethical research practice, individuals do have the right to choose whether they engage in the research participation process and are able to drop out at any time. This creates an issue with generalizing results to the population when individuals who are pre-disposed to participate in research on social justice topics due to their own views and beliefs, and the lack of participation from those who are not interested in research related to social justice issues. As such, recruitment strategies highlighted the media intervention and measurement components, but omitted language involving keywords such as social justice, transgender, gender diverse, etc. in an effort to obtain a more random sample of college students.

Participants

A total of 330 participants enrolled in the study, however 95 ultimately did not complete the intervention. A total of 229 participants (n = 229) completed the study, but six participants (n

= 6) were dropped from the study because of issues related to validity. The analysis for this study was conducted using the Statistical Package for the Social Sciences (SPSS). Of these 223 participants, the sample was comprised of 108 males and 115 females. Participants identified as American Indian or Alaskan Native (8.1%, n=18), Asian American or Pacific Islander (5.4%, n=12), biracial or multiracial (3.6%, n=8), Black or African-American (4.0%, n=9), Hispanic/Latinx (9.9%, n=22), Middle Eastern (2.2%, n=5), and White or European American (66.8%, n=149). The age range for participants was from 18 to 57, with 20 years as both the mean and median age. Participants ranged from first year undergraduates to graduate students; overall, 96.9 percent (n=216) of the participants were undergraduate students while 3.1 percent (n=7) were graduate students. Of the participants, 75.8 percent (n=169) reported they never watched an episode of the intervention, Star Trek, before; 20 percent (n=46) reported they previously had, and 3.6 percent (n=8) were not sure.

Table 1

Demographic Information of Participants from Study Sample (N=223)

Characteristic	n	%
Gender		
Male	108	48.4
Female	115	51.6
Transgender Female	0	0
Transgender Male	0	0
Genderfluid/Gender Non-Binary	0	0
Other not listed	0	0
Sexual Orientation		
Asexual	13	5.8
Bisexual	8	3.6
Did not answer	2	0.9
Gay	3	1.3
Heterosexual/Straight	195	87.4

Lesbian	1	0.4
Pansexual	0	0
Queer	0	0
Other not listed	1	0.4

Race

American Indian or Alaskan Native	18	8.1
Asian American or Pacific Islander	12	5.4
Biracial or Multiracial	8	3.6
Black/African American	9	4.0
Hispanic/Latino/a/x	22	9.9
Middle Eastern	5	2.2
White/European American	149	66.8

Year in School

First Year Undergraduate	61	27.4
Second Year Undergraduate	41	80.3
Third Year Undergraduate	61	27.4
Fourth Year Undergraduate	44	19.7
Fifth Year Undergraduate	8	3.6
Graduate Student	7	3.1
Other not listed	1	0.4

Age

18	31	13.9
19	44	19.7
20	49	22.0
21	49	22.0
22	23	10.3
23	13	5.8
24	5	2.2
25	1	0.4
26	1	0.4
27	1	0.4
28	1	0.4
29	1	0.4
40	1	0.4
42	1	0.4
49	1	0.4
57	1	0.4

Religion			
	Agnostic	19	8.5
	Atheist	4	1.8
	Buddhist	2	0.9
	Christian	175	78.4
	Muslim	10	4.5
	Non-Religion	9	4.0
	Other not listed	4	1.8
Seen Star Trek			
	No	169	75.8
	Not Sure	8	3.6
	Yes	46	20.6

Solomon four-group design

In quantitative research, there is a possibility that the measures themselves could have an impact on the results due to participants' familiarity with a measure or test due to completing it more than once in a pre- and post-test design (Heppner, Wampold, Owen, Thompson, & Wang, 2016). The exposure to a pre-test can impact the subject's sensitivity to the experimental treatment which ultimately impacts the ability to generalize the results (Huck & Sandler, 1973). A Solomon four-group design was used in this study in an effort to understand if any influence or effect exist (Solomon, 1949). This design is useful for identifying if the changes in the dependent variables (attitudes, and willingness to engage in social action) are related to an interaction effect between the pre-test (the two measures) and the intervention (the media). This research design assists in determining the separate effects of the intervention itself, and reduces threats to internal validity (Braver & Braver, 1988).

Past uses of the four group design covered a range of topics including testing the effect of a critical thinking skills intervention with students, understanding the impact that video games

have on perpetuating beliefs about rape, evaluating the impact of a career counseling group on college students, and a health intervention with adolescents (Beck, Boys, Rose, & Beck, 2012; Howard, Tang, & Austin 2015; Rowell, Mobley, Kemer, & Giordano, 2014; Sarkar, Dasgupta, Sinha, & Shahbabu, 2017).

In the four-group design, each group receives differing levels of the testing and intervention. This assists in allowing comparison between groups as well as determining differences within each group.

Table 2

Solomon Four-Group Design

Group	Pre-Test	Intervention	Post-Test
Group 1	Yes	Experiment	Yes
Group 2	Yes	Control	Yes
Group 3	No	Experiment	Yes
Group 4	No	Control	Yes

The *a priori* power calculation estimated that approximately 200 total participants were needed to achieve statistical power for measuring these two variables, with each of the four groups comprised of approximately 50 participants. The sample of participants in each group was as follows: 54 participants in group one, 57 participants in group two, 57 participants in group three, and 55 participants in group four. There were no major differences between groups due to random assignment.

Procedures

The study consisted of two phases: enrollment/pre-testing, and intervention/post-testing. During the enrollment phase, participants accessed the initial enrollment material through the Qualtrics system, an online survey system provided by the university. To ensure anonymity of

participants, the link to the Qualtrics system was listed in all methods of advertisement including flyers and university research systems. Upon enrollment, participants completed the informed consent documentation which described the purposes, risks, and benefits of the study. Individuals who wished to proceed with participation in the study completed the next section of the enrollment phase.

Enrollment

During the next section of enrollment, participants filled out demographic information. All efforts were taken to protect the confidentiality of all participants. Participants reported age, gender identity, sexual orientation, race, ethnicity, religious or spiritual affiliation, year in school, political affiliation, whether they qualify for financial aid, and the zip code of their hometown. Participants created a PIN to match their demographic information with their responses to the measures for the statistical analysis. Participants were also asked if they've watched an episode of the television show that served as the intervention. Name, student ID number, and social security number of the participants were not collected to assist in the reduction of the amount of identifying information collected. However, participants provided their email address in order to receive confirmation of the time of their intervention viewing.

Participants selected the time that they are available to watch the intervention, and received an email confirmation. Completion of the demographic information took approximately five minutes. The Qualtrics system was set to randomly select participants to complete the pre-test measures; the algorithm was set to randomly choose 50% of participants to complete these measures while the other 50% were not shown the measures.

Intervention and post-testing

During the intervention phase, participants attend a viewing of their designated intervention and were told to bring a laptop, tablet, smart phone, or other device that could access the internet. At the viewing, participants received standardized instructions that described the procedures for the session. These procedures included a reminder about the informed consent process, how long the episode was, and approximately how long the post-test measures would take to complete. Either the intervention or control episode was randomly selected for the individuals of that viewing slot to watch. Upon completion of the episode, participants were shown a Qualtrics link with the post-test measures. Participants entered their PIN, completed the two measures, and left the viewing room once they were complete. No debriefing or post-experimental inquiry occurred after watching the episode.

Participants randomly allocated into the experiment groups watched a television episode titled "The Outcast" from the fifth season of *Star Trek: The Next Generation* (Taylor & Scheerer, 1992). In this episode, a main character develops a romantic relationship with an individual from a society that suppresses any manifestation of gender identity. This episode was chosen for the media intervention due to the main character coming from a culture that is rooted in open-mindedness and acceptance, and thus creating an atmosphere where a gender diverse individual is not discriminated against or seen as an abnormality. Basilowski et al. (2018) commented that television can be useful to target prejudice, but also illustrate a changing and unique perspective, which is often seen in episodes of Star Trek. Another reason this episode was chosen for the media intervention, is due to the probability of few participants having seen this episode and thus minimizing the likelihood of past exposure. As this study focused on a simple media intervention, use of an episode of television that is widely accessible (e.g. DVD, streaming, etc.) and already produced could allow replication of this intervention in the future.

Participants in the control group watched another episode of *Star Trek: The Next Generation* titled "Cause and Effect." (Braga & Frakes, 1992) This episode was chosen as the control intervention because it is the same length of the experiment episode and contains no references to gender identity, transgender and gender diverse individuals, or social justice-related behaviors. It was also produced during the same season as "The Outcast" and thus has similar production values, appearance and style of characters, etc.

Participants in groups 1 and 2 completed the measures during the enrollment phase, and prior to watching the intervention. The Qualtrics system randomly selected 50% of participants to complete the pre-test measures. Participants in groups 3 and 4 completed no measures prior to watching the intervention. As participants were randomly selected by Qualtrics to complete pre-testing measures and the episode was randomly selected for participants, all participants had the maximum possibility of being randomly placed into any of the four groups.

Measures

Some participants completed two measures during pre-testing, and all participants completed the two measures during post-testing. These two measures directly evaluated the variables being assessed in this research study.

Transgender Attitude and Beliefs Scale.

Kanamori and colleagues sought to develop a multi-dimensional measure to assess attitudes towards transgender and gender non-conforming individuals (Kanamori et al., 2017). Their efforts resulted in the development of the Transgender Attitude and Beliefs Scale (TABS). The original 96 questions were narrowed down by the authors into 33 items using confirmatory factor analysis. The authors do not provide a singular or operationalized definition of attitudes in their work. However, they do identify three specific factors that contribute to scale's overall

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multidimensional conceptualization of attitudes; these include the participant's own level of interpersonal comfort with a transgender individual, the participants' own beliefs about what constitutes sex and gender, and the participants' own beliefs about the human value of transgender individuals (Kanamori et al., 2017). Higher scores on the TABS indicate "more favorable attitude toward transgender individuals" (Kanamori et al., 2017, p. 1512). The 33 items on the TABS are rated using a 7-point Likert-type scale from 1 (strongly agree) to 4 (neutral) to 7 (strongly agree). 13 of the items are reverse coded.

The authors report strong correlation of the TABS with both the ATTI and GTS, thus suggesting convergent validity (Kanamori et al., 2017). There are multiple strengths to the TABS measure including sufficient evidence for reliability and validity, the authors accounted for social desirability in the participants' response styling, and creation of items that reflect civil rights issues of transgender individuals (Kanamori et al., 2017). The authors also used detailed literature review and expert consultation in the development of the measure (Billard, 2018). Due to the recent publication of the TABS by Kanamori's team in summer 2017, no publications exist yet that utilize this measure.

The initial sample used to develop the measure include 295 participants (Kanamori et al., 2017). This sample was comprised of 132 males and 163 females. Participants identified as African American (5.4%), Asian/Pacific Islander (5.8%), Caucasian (81.4%), Latino/Hispanic (4.7%), Native American (0.3%), biracial or multiracial (2%) and other (0.3%). The second sample used to validate the measure include 238 participants (Kanamori et al., 2017). This second sample was comprised of 106 males and 132 females, with similar demographic characteristics to the first sample.

The mean scores on the interpersonal comfort subscale were 70.09 for males and 80.67 for females, with a standard deviation of 20.81 and 19.20 respectively. The mean scores on the sex/gender belief subscale were 46.17 for males and 51.31 for females, with a standard deviation of 15.07 and 15.06 respectively. The mean scores on the human value subscale were 30.66 for males and 32.86 for females, with a standard deviation of 4.63 and 3.40 respectively. Due to each scale being rated on a Likert-type scale from 1 to 7, the absolute range for each subscale was 14 to 98, 10 to 70, and 5 to 35 respectively.

Kanamori et al. reported Cronbach's Alpha for this scale as 0.97 (2017). Cronbach's Alpha for the TABS scale in this study was 0.946.

Social Justice Scale.

The SJS has four subscales that comprise the overarching concept of social action which include attitudes towards social justice, perceived behavioral control, subjective norms, and behavioral intentions which are identified as subscales 1, 2, 3 and 4 respectively (Torres-Harding, Siers, and Olson, 2012). The authors define attitudes towards social justice as "endorsement of social justice values, goals and behaviors" as well as the presence of social justice values such as "empowerment, collaboration, power-sharing, self-determination, and facilitating access to resources for all" (p.81). Perceived behavioral control is in regard to an individual's perception about their own ability to perform social justice related goals (Torres-Harding et al., 2012, p. 81). Subscale 3 evaluates whether individuals in the respondent's environment supported or discouraged engagement in social action (Torres-Harding et al., 2012). Subscale 4 measures "behavioral intentions to engage in social-justice related behaviors in the future" (Torres-Harding et al., 2012, p. 81). The number of items on each subscale are 11, 5, 4 and 4 respectively.

Of the initial sample used to develop the measure, 155 participants were used (Torres-Harding et al., 2012). This sample was 26 percent male and 74 percent female. The breakdown of race and ethnicity of the participants was European American (50%), African American (12%), Latino/a (10%), Asian American (8%), Middle Eastern (8%), multiracial (5%), unidentified (9%).

Of the second sample used to validate the factor structure of the measure, 276 participants were used with similar demographic characteristics to the first sample. Both samples were comprised of undergraduate and graduate students (Torres-Harding et al., 2012).

The authors reported that all four subscales were significantly negatively correlated with scales of global belief in a just world, symbolic racism, and neosexism (Torres-Harding et al., 2012). The authors reported a significant positive correlation between all four subscales and a scale that measures the extent to which one might be motivated to pursue a career in public service (Torres-Harding et al., 2012).

Strengths of this measure include the development and revision of the scale through confirmatory factor analysis, and the negative correlation with measures that evaluate racism and sexism, as well a negative correlation with a measure that evaluates belief in a just-world (Torres-Harding et al., 2012). While the sample sizes used in the confirmatory factor analysis are relatively small, a strength of this measure is the cross validation with the two samples which can offer additional confidence in the measure.

Another strength of this measure is the array of items used to assess social justice-related behaviors. These items were created by the research team and then reviewed by a separate panel of psychologists and graduate students (Torres-Harding et al., 2012). Items were appropriately adjusted to address meaning, clarity and purpose prior to validation with the samples. Fietzer and

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Ponterotto stated that the Social Justice Scale was "a promising tool to predict engagement in social justice behavior from an individual's attitudes" (Fietzer & Ponterotto, 2015, p. 31).

Torres-Harding et al. reported Cronbach's Alpha for this scale as 0.82 to 0.95 (2012). Cronbach's Alpha for the SJS scale in this study was 0.965.

CHAPTER III

RESULTS

Statistical design

To investigate the potential difference in overall changes between students who received the control intervention or experiment intervention, the researcher analyzed the data with a split-plot factorial analysis of variance (ANOVA) for within group responses. The research also utilized a one-way ANOVA to detect between group differences regarding the impact that the pre-test had on the participants' sensitivity to the experimental treatment. A split-plot factorial ANOVA and one-way ANOVA are the appropriate statistical analyses evaluating the difference in means of paired tests and for evaluating the differences between two different groups, respectively (Gravetter & Wallnau, 2013). All assumptions of ANOVA and descriptive statistics were checked and evaluated prior to the analysis.

In this research study, the independent variable was the media intervention. Dependent variable 1 was *attitudes towards transgender and gender diverse individuals*. This was measured by the Transgender Attitudes and Beliefs Scale total score. Higher scores generally reflect greater acceptance of transgender individuals (Kanamori et al., 2017). Dependent variable 2 was *willingness to engage in social action*. This was measured by the total score on the Social Justice Scale, as well as specifically evaluated through the social justice behavioral intentions subscale. Higher scores on this measure are associated with behaviors that promote social justice (Torres-Harding et al., 2012). Hypotheses one and two refer only to groups 1 and 2 (see groups below).

Participant attitudes and beliefs

Hypothesis one was *individuals who receive the media intervention will show a statistically significant increase in positive attitudes towards transgender and gender diverse individuals.*

Table 2
Solomon Four-Group Design

Group	Pre-Test	Intervention	Post-Test
Group 1	Yes	Experiment	Yes
Group 2	Yes	Control	Yes
Group 3	No	Experiment	Yes
Group 4	No	Control	Yes

Before conducting the split-plot factorial ANOVA analysis on this variable with the study sample of 223 participants, statistical assumptions were assessed. For the split-plot factorial ANOVA of the first variable, which examined potential differences in transgender attitude and beliefs, all assumptions were met. Using SPSS, the data were found to be normal when using the Shapiro-Wilk's test of normality at a .05 level of significance. Additionally, the data were found to have equal variances when using Levene's test of normality at a .05 level of significance. The assumption of independence of the sample was met due to the design of the study and randomization of group designation. The interaction between groups before and after the intervention in the split-plot ANOVA was $F(1, 109) = 7.042$, p = .009 which indicates a statistically significant interaction between the two groups before and after the intervention at an alpha level of .05. Thus, hypothesis one is supported.

Overall, the split-plot factorial ANOVA on the TABS for this sample had a moderate effect size (partial η^2 = .061 and Cohen's d = .508). An achieved power analysis determined

Power (1 – Beta) was 0.999, meaning there is a 99.9 percent chance of detecting group

differences when they exist.

Table 3

Tests of Within-Subjects Contrasts for Variable 1

Source	df	SS	MS	F	p
TABS Pre/Post	1	609.747	609.747	8.503	.004
TABS * Intervention	1	504.990	504.990	7.042	.009
Error (TABS)	109	7815.965	71.706		

Table 4

Tests of Within-Subjects Contrasts for TABS Subscale 2 in Variable 1

Source	df	SS	MS	F	p
Subscale 2 Pre/Post	1	21.244	21.244	1.250	.266
2 Pre/Post * Intervention	1	136.054	136.054	8.005	.006
Error (Subscale 2)	109	1852.495	16.995		

In addition to the total score, the subscales of the TABS were evaluated. Participants in group 1

demonstrated a significant change on only one subscale; sex/gender beliefs where $F(1, 109) =$

8.01, p = .006. The scales of interpersonal comfort and human life were not significant. Though

only one subscale had a significant change, hypothesis one is still met based on the total TABS

score.

Figure 1.

Estimated Marginal Means of MEASURE_1
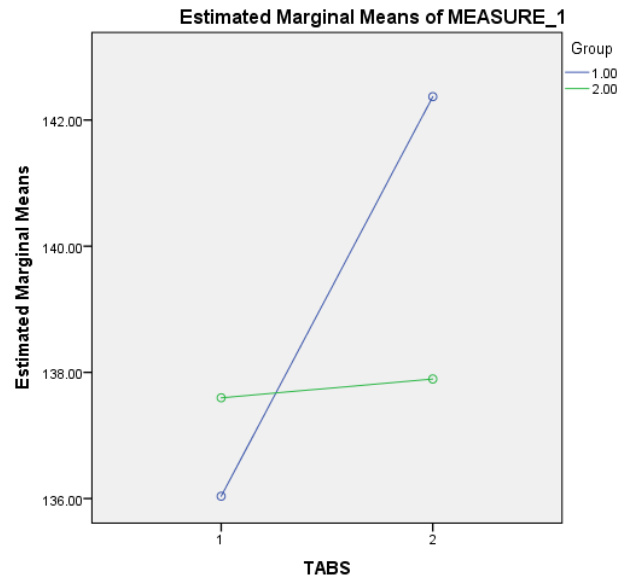
This figure shows the results of the simple main effect. The results of the split-plot factorial ANOVA show an interaction with pre- and post-tests for the Transgender Attitudes and Belief Scale based on the intervention. The mean score for pre-testing and post-testing for group 1 are 136.037 and 142.370 respectively, and the standard deviation for each is 16.246 and 31.916 respectively. The mean score for pre-testing and post-testing for group 2 are 137.596 and 137.894 respectively, and the standard deviation is 26.494 and 27.411 respectively.

With regards to demographics, there was no significant difference between males and females on TABS scores for either group 1 or group 2 with $F(1, 52) = 1.557$, $p = 0.218$ and $F(1, 55) = 1.157$, $p = 0.287$. Other demographics were not analyzed for differences due to lack of similar sizes for comparison.

Participant social action

Hypothesis two was *individuals who receive the media intervention will show a statistically significant increase in willingness to engage in social action.* Again, hypothesis two only refers to groups 1 and 2. Before conducting the ANOVA analysis on this variable with the study sample of 223 participants, statistical assumptions were assessed. For this ANOVA, the data were found not normal when using Shapiro-Wilk's test of normality at a 0.05 level of significance specifically for group 2's pre- and post-test scores. Skewness and kurtosis were evaluated; group 1 was found to be within normal limits for both pre- and post-test results, but group two was not. Although skewness and kurtosis were violated, group two had an adequate sample size and generally normal Q-Q plot. As such, F is still robust. In continuing to evaluate assumptions, the data were found to have equal variance when using Levene's test of normality at a .05 level of significance. The assumption of independence of the sample was met due to the design of the study and randomization of group designation.

Table 5
Tests of Within-Subjects Contrasts for Variable Two

Source	df	SS	MS	F	p
SJS Pre/Post	1	201.155	201.155	1.486	.225
SJS * Intervention	1	119.173	119.173	.881	.350
Error (SJS)	109	14750.314	135.324		

With an alpha level of .05 on the split-plot ANOVA, the results of the interaction between groups is $F(1, 109) = .881$, p = 0.350 which indicates there is no statistically significant interaction between the two groups before and after the intervention. The ANOVA had a small effect size (partial $\eta^2 = .008$ and Cohen's $d = .179$). An achieved power analysis determined Power (1 – Beta) was 0.463, meaning there is a 46.3 percent chance of detecting group differences when they exist. The violation of normality can impact the effect size and ultimately

the ANOVA even when certain conditions are met such as adequate sample size. As a result, a

Mann-Whitney U test was conducted on the data. This non-parametric test allows a researcher to

examine two sample means from the same population and determine whether they are equal or

not (Gravetter & Wallnau, 2014). A Mann-Whitney U test is used when there is a violation of

assumption in a data set; in this case, normality. Although the ANOVA F is still robust, the

Mann-Whitney U test was run to assist in evaluating the results to correct for normality.

Table 6
Mann-Whitney U Test

Source	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig.
Social Justice Scale Post-Testing	1363.500	3016.500	1.036	.300

For the Mann-Whitney U test comparing the post-test of the Social Justice Scale between groups

one and two, *U=1363.500, p = .014*. Ultimately with a Mann-Whitney U test to adjust for

normality of data, the null hypothesis was not rejected due to lack of statistical significance in

difference between groups.

Figure 2
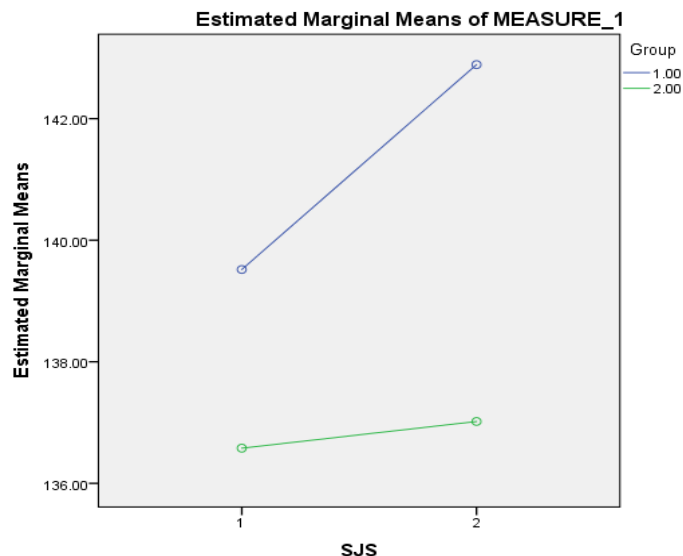
The figure shows the results of the main effect. The results of the split-plot factorial ANOVA do not indicate an interaction with pre- and post-tests for group 1 on the Social Justice Scale. The mean score for pre-testing and post-testing for group 1 are 139.518 and 142.888 respectively, and the standard deviation for each is 16.246 and 16.100 respectively. The mean score for pre-testing and post-testing for group 2 are 136.578 and 137.017 respectively, and the standard deviation is 24.003 and 24.131 respectively. Based on the overall results, hypothesis two was not met.

With regards to demographics, there was no significant difference between males and females on SJS scores for either group 1 or group 2 with $F(1, 52) = 0.193$, p = 0.662 and $F(1, 55) = 0.367$, p = 0.547. Other demographics were not analyzed for differences due to lack of similar sizes for comparison.

Social desirability responding

To determine whether pre-testing had an effect on participants' impression of the study, all groups in Solomon four-group design are used to evaluate post-testing results. This comparison was on both the TABS and SJS measures and made with a one-way ANOVA between groups 1 and 3, and groups 2 and 4.

Table 7
Results of the one-way ANOVA between Groups 1 and 3

Source	df	SS	MS	F	p
TABS Between	1	14.269	14.269	.013	.910
TABS Within	109	119887.154	1099.882		
Error (TABS)	110	119901.423			

Table 8
Results of the one-way ANOVA between Groups 1 and 3

Source	df	SS	MS	F	p
SJS Between	1	24.581	24.581	.056	.813
SJS Within	109	42426.175	435.103		
Error (SJS)	110	47450.757			

With an alpha level of .05, there was no statistically significant difference between the groups receiving the intervention, groups 1 and 3, on either the TABS or SJS scores where $F(1, 110) = 0.056$, $p = .910$ and $F(1, 110) = 0.013$, $p = .813$ respectively. Thus, it can be assumed that the pre-testing did not significantly impact group 1.

Table 9

Results of the one-way ANOVA between Groups 2 and 4

Source	df	SS	MS	F	p
TABS Between	1	309.169	309.169	.355	.552
TABS Within	110	95736.750	870.334		
Error (TABS)	111	96045.920			

Table 10

Results of the one-way ANOVA between Groups 2 and 4

Source	df	SS	MS	F	p
SJS Between	1	341.236	341.236	.736	.393
SJS Within	110	50982.728	463.479		
Error (SJS)	110	51323.964			

Also as expected, there was no difference between groups 2 and 4 on either the TABS or SJS scores where $F(1, 111) = 0.355$, $p = .552$ and $F(1, 111) = 0.736$, $p = 0.393$ respectively. Thus, it can be assumed that the pre-testing did not significantly impact group 2.

CHAPTER IV

DISCUSSION

Discussion of results

The television episode worked with the experiment group as intended with a significant change in attitudes and beliefs. However, the episode did not work as intended with regard to how people might engage in social action.

First and foremost in the discussion of results, we must recognize that trans rights are human rights. As we navigate the current sociopolitical climate, it is essential to find strategies and methods to increase positive attitudes towards transgender and gender diverse individuals to ultimately bring about full equality and inclusion for a specific population of individuals that historically experience marginalization that occurs even to this day. These strategies and methods, while aimed at cisgender individuals, can ultimately eliminate a variety of pressing concerns within the transgender and gender diverse community. These concerns include mental health problems, extreme forms of discrimination, high suicide rates, frequent violence, and high rates of being murdered. Strategies and methods are needed to address these atrocities to truly create physical and psychological safety and security for all individuals.

The goal of this study was to see whether a simple media intervention could increase positive attitudes towards a marginalized group, specifically transgender and gender diverse individuals, along with a corresponding increase in positive intention to engage in social action by the participants. The results of the data indicate the intervention had a statistically significant

impact on positive attitudes, and thus help create a foundation that shows simple media interventions like Star Trek can help bring about an increase. Yet this is just the first step. A significant change in positive attitudes in one sample is promising, but we still need to continue utilizing these efforts to make it a continuous, long-term, and deep-rooted impact that helps reshape the way our society views those who might be seen as different.

Overall, the results are congruent with the review of the literature that show how an intervention can be used to change beliefs and increase positive attitudes towards a variety of different groups of people. Past literature referenced utilization of media such as documentaries, videos, workshops, and plays to address inequality within the LGBTQ+ community (Mizock et al., 2017; Mulvey and Mandell, 2007; White Hughto et al., 2017). This study showed that a 42-minute episode of a fictional show, which is something that can be easily more accessible and possibly more appealing to the wider population, brought about a statistically significant change in beliefs and positive attitudes toward transgender people.

Implications

The results of this study indicate that an intervention as simple as viewing one episode of the highly popular Star Trek series could have an influence on participants' attitudes toward gender identity. This has major implications for clinical practice, research, training of future mental health professionals, outreach and prevention methods, advocacy, and ultimately social justice. Counseling psychologists should develop strategic interventions in an effort to assist clients with increasing empathy should understanding or difference in identity be a presenting concern to a client. Other strategic interventions can take the shape of something similar to bibliotherapy where counseling psychologists might prescribe an episode or movie, and utilize it for discussion and processing in a clinical context when relevant to the client's needs. If a parent

is struggling to cope with their own child's gender identity, a therapist might use this episode as a stepping stone for deeper conversation.

The implications for research in this study simply show that more research is needed as the surface has barely been scratched. More research is needed to see how viewers can have an increase social action on behalf of transgender and gender diverse individuals. This study shows that out-of-the-box interventions can have an impact on citizens, such as the college students in this sample, and that further research should look at creative ways to address issues that inhibit a world from being truly socially just. Ultimately, research helps move us forward in knowledge and understanding, but additional study is needed of so many great stories, perspectives, and narratives already in existence. 25 years ago, "The Outcast" aired in 1992; what other powerful tools are out there being overlooked that can help contribute to a socially just world?

An implication for training and supervision of mental health providers and counseling psychologists is social justice education and multicultural competency can involve unique forms of education and intervention. Those providing supervision and training can utilize media such as "The Outcast" as a way to engage in difficult dialogues with trainees, and ultimately help spur their growth and training. As these trainees are the next generation of providers, it is necessary to find the best tools to help students and mentees engage in opportunities to embrace a multicultural approach that encompasses the worth and dignity of all peoples.

This study would also allow for the development of more strategic outreach efforts and prevention interventions to address prejudice and discrimination, and ultimately reducing violence and systemic oppression toward transgender and gender diverse individuals. Prevention efforts might use this episode, or other strategic material, to engage in conversations and discussions about attitudes and beliefs. As a variety of media options are available to use as

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catalysts for changes regarding attitudes toward marginalized groups, these results show the power that fictional narratives involving diverse individuals can have on the said beliefs and attitudes. When thinking about exposure, increasing knowledge, and raising awareness, groups on college campuses might find ways to incorporate similar intervention efforts like this study to have conversations with peers.

Psychological organizations, trans advocacy groups, and organizations promoting social justice must continue advocating for incorporation of diverse characters and accurate representation into television, movies, web shorts, etc. as these powerful stories can influence the understanding of the viewer and thus be a form of prevention (Basilowski et al., 2018). So often media is evaluated on viewership numbers and revenue without consideration of cultural impact or contribution to the growth and development of socially just individuals. Ultimately, when diverse characters and accurate representation exists, it creates exposure for more and more individuals to have an opportunity to learn. This exposure can be a form of prevention efforts by increasing visibility and thus familiarity, which can decrease discrimination and violence. Though this study utilized an out-of-the-box method such as an episode of Star Trek in an effort to introduce and address core issues that might be met otherwise with resistance, it further speaks to the need to incorporate diverse and fully-formed characters in situations that provide opportunities for viewers to develop empathy and understanding, and ultimately critical self-reflection.

Finally, regarding implications for social justice, it is important to remember Bell's definition which involves a society where all members are physically and psychologically safe and secure (Bell, 1997). Using media interventions to increase positive attitudes towards marginalized groups can assist in reducing the systemic and individual practices of exclusion.

Those individuals with privilege who are exposed to an intentional media intervention have a chance to develop better understanding of marginalized groups. Unfortunately, social justice is not a change that will occur overnight. Through education and interventions that increase understanding, exclusionary practices that perpetuate the disproportionate balance of power and advantage will start to become dismantled over time. Through the removal of unjust treatment, marginalized people can finally begin to experience equality as well as physical and psychological safety and security.

Limitations

Limitations with the sample include that all data were collected from a single university and all participants were self-selected. Further, approximately 325 individuals enrolled but 100 of those participants did not complete the remainder of the study. This study had a relatively concise time-frame of completion from enrollment to completing post-test measures to assist in controlling for testing effects and outside events. The range of time from enrollment to post-testing was a minimum of less than one day to a maximum of 71 days; the average time between enrollment and post-testing was eight days. Additionally, at least three participants questioned an item on the Social Justice Scale during post-testing. These participants asked the researcher for clarification of the word "objectionable." There may be more individuals who were uncertain as to the definition of this word, and possibly other items on the measures, which would impact their comprehension and ultimately their responses.

Another limitation was potential social desirability bias in participant responses. Social desirability is the tendency for research participants to provide a desirable and more acceptable response to measures and scales (Heppner et al., 2016). This can include participants potentially under-reporting bad behavior or beliefs, and over-reporting good behavior or beliefs (Crowne &

Marlowe, 1960). Heppner et al. (2016) suggest addressing this issue by ensuring that instructions on the measures include "there are no right or wrong answers" and ensuring the scale names are not visible or labeled on the measure itself (Heppner et al., 2016, p. 573). The issue of social desirability bias was addressed by ensuring participants that the data collection was anonymous and reminding participants they could not be identified by their responses (Heppner et al., 2016). Additionally, Heppner et al. suggest not sharing the hypotheses for the study with the participants as this might inadvertently prime participants to believe they need to respond differently after an intervention (Heppner et al., 2016). Heppner's suggestion was utilized during this study and as such, any and all hypotheses were not shared with participants. However, both measures utilized language that could lead participants to have hints at what this study measured.

Another limitation is related to demographic characteristics of the sample, specifically sexual orientation. 5.8 percent of the students (n=13) identified their sexual orientation as asexual. It is possible that some participants chose this response without knowing what it meant. On the Qualtrics survey, responses were listed alphabetically, thus some might have chosen this response because it was the first option on this list.

Strengths

The strengths of this study include the use of the Solomon four-group design and split-plot ANOVA to evaluate changes for both variables. Though not often used, the four-group design helped evaluate for group differences between experiment and control groups, and helped control for testing effects. The concise nature of this study's method of intervention from enrolling participants and pre-testing to intervention and post-testing is a strength that ultimately resulted in recruitment of 325 participants, with 223 participants completing the study. Future

studies might utilize a similar format to streamline participation and increase efficiency of data collection.

Another strength is the specific intervention in an effort to better address beliefs regarding transgender individuals. Although a variety of interventions might exist that range from documentary to an informative lecture by a guest speaker, this study utilizes an intervention whose narrative is presented in a fictional and distinct manner that might be more digestible by large amounts of individuals as it does not directly utilize terms related to the variables. The relaxing nature of this activity, compared to a formal workshop might be more appealing to the public, especially college students.

Future directions

In this study, the researcher found successful intervention results for one hypothesis, though a stronger or perhaps additional component is needed to address the second hypothesis regarding social action. Future research might replicate this study and also incorporate debriefing and open-ended questions that fully evaluate change factors in an effort to better understand what specific components were useful in increasing positive attitudes toward transgender and gender diverse individuals. Should this study be replicated or reproduced to be focused on another marginalized group, more in-depth questioning and discussion about social action can be conducted to identify what participants might need to engage in these behaviors. A future direction also includes constructing a method for follow-up with participants to see how positive attitudes are maintained, if the participants use their own change in attitudes to influence others, and if participants engage in reflection to address their attitudes regarding other groups of people. With hundreds of episodes in the catalogue, future directions also should investigate what episodes of Star Trek can be used to increase attitudes regarding other marginalized groups,

as well as looking at how can strategic use of media in teaching and training supplement education, knowledge, and ultimately empathy with diverse groups. The findings of this study might lead to the future development of a curriculum or program for children regarding how kids address and understand people who are different than them. Producers and writers of shows such as Sesame Street can utilize this data to help educate and inform youth.

Although more literature exists regarding changing attitudes, further understanding of how to change the corresponding social action component is needed to best bring about a socially just world where individuals will engage in action that brings about equality for all people and groups on an individual and macro-level. This could be done through quantitative and qualitative evaluation of how individuals develop an activist identity and how citizens become passionate about social and political issues. However, the change in positive attitudes regarding gender identity with this sample of college students is an amazing success. This study took a unique idea in the hopes that participants could walk away with a different and more positive perspective regarding gender identity. This is an important step and finding as we work to dismantle oppression and injustice, and work on creating the world that is physically and psychologically safe for all.

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APPENDIX A: AN EXTENDED REVIEW OF THE LITERATURE

A variety of terminology is often used to describe individuals who are transgender or gender diverse. Multiple professional organizations including the American Psychological Association (2015) and American Psychiatric Association (2016) have identified appropriate terminology to be used by professionals.

The term *transgender* is used to describe anyone for whom the physical sex assigned at birth is persistently incorrect, incomplete or incongruent with that individual's own description (American Psychiatric Association, 2013; Nadal, Skolnik, & Wong, 2012). The term *cisgender* is used to identify non-transgender individuals and those who experience congruence between physical sex and their own individual identity (American Psychiatric Association, 2013; Nadal et al., 2012). Transgender can often be used as an umbrella term to describe anyone who identifies as gender diverse, or anyone who views their own gender identity as fluid and/or on a continuum. In the past, the term *transsexual* was used to describe the same population (Pomeroy, 1975). However, the term transgender is generally thought to be a more overarching and appropriate term (American Psychological Association, 2015). Individuals who identify as *genderqueer* might have a gender identity that does "not align with a binary understanding of gender" or "decline to define themselves as gendered altogether" (American Psychological Association, 2015, p. 862).

Past terminology surrounding individuals who identified as transgender and gender diverse often included the term *transvestite*. Transvestite previously represented an individual

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who engaged in wearing clothing of the opposite gender typically for pleasure or reasons related to personal satisfaction (Doorn, Poortinga, & Verschoor, 1994). This term is generally considered to be derogatory and no longer acceptable to use (GLAAD, 2018). Individuals previously identified with the term transvestites are often now referred to as individuals who engage in *cross-dressing* (American Psychological Association, 2015). Individuals who engage in cross-dressing are generally not considered to be in the grouping of individuals identifying as transgender due to their sartorial preferences often not associated with gender identity, but more of an activity or behavior for specific reasons (American Psychological Association, 2105). Clarity of terminology is needed to identify the population being studied.

West and Zimmerman (1987) discuss the binary construct that is gender as typically seen in Western societies. The gender binary construct refers to the set of socially constructed norms, values and ideas that surround gender (Burdge, 2007). These norms are immediately imposed upon newborns and require all individuals to identify either as male or female without exception as though they are mutually exclusive (Burdge, 2007). The binary gender construct has slowly evolved in past years, and will continue to do so, as the understanding of gender becomes more fluid and less rigid (West & Zimmerman, 1987).

Support from national organizations

As issues related to transgender and gender diverse individuals gain more national media attention, professional organizations promote mental health and advocate for equality, inclusion, and the rights of lesbian, gay, bisexual, transgender and queer individuals. The Human Rights Campaign (HRC) seeks to improve the lives of LGBTQ+ individuals through advocacy, education and outreach (Human Rights Campaign, 2018). The HRC often works at the state and federal levels to lobby officials (HRC, 2018). The World Professional Association for

Transgender Health (WPATH) has released a number of documents called the Standards of Care (SOC), which provides guidance to health professionals, advancing ethical guidelines, and sponsoring scientific research (Coleman et al., 2012). The most recent version is SOC 7.0. The goal of WPATH Standards of Care is to assist "transsexual, transgender, and gender nonconforming people with safe and effective pathways to achieve lasting personal comfort with their gendered selves, in order to maximize their overall health, psychological well-being, and self-fulfillment" (Coleman et al., 2012, p. 1). The American Medical Association established clear policies for practicing physicians aimed at increasing support of human rights and decreasing discrimination in the medical and health care setting for transgender and gender diverse individuals (American Medical Association, 2017b).

The American Psychological Association established the Office on Sexual Orientation and Gender Diversity, and created a task force to develop recommendations for education and training (American Psychological Association Task Force on Gender Identity and Gender Variance, 2009). APA's Division 44, the Society for the Psychology of Sexual Orientation and Gender Diversity, focuses on research, practice, education, training and advocacy on issues related to sexual orientation and gender diversity (Society for Psychology of Sexual Orientation and Gender Diversity, 2018). The American Counseling Association adopted competencies for counselors working with transgender and gender diverse clients (Harper et al., 2012). The competencies are meant to establish a "common approach of affirming that all persons have the potential to live fully functioning and emotionally healthy lives throughout the lifespan along the full spectrum of gender identity and gender expression" (Harper et al., 2012, p. 2).

Pathology and diagnosis

While current medical and mental health practices are becoming more up to date, this was not always the case. Previously, mental health providers used the diagnosis of *gender identity disorder* to describe and pathologize, which is to identify as an abnormality or unhealthy, anyone with a cross-gender identification (Green, 2010). Gender identity disorder was identified as a sexual disorder and first added to the Diagnostic and Statistical Manual of Mental Disorders III in 1980 (American Psychiatric Association, 1980). Gender identity disorder, and being transgender itself, is no longer considered psychopathology or to be a mental disorder per the American Psychiatric Association with the advent of the DSM-V (American Psychiatric Association, 2013). *Gender dysphoria* exists in the Diagnostic and Statistical Manual of Mental Health Disorders, Fifth Edition (DSM-V) to describe the distress that might be associated with the incongruence between one's assigned gender and one's expressed gender (American Psychiatric Association, 2013). This shifts the diagnosis from gender identity issues to the actual distress that an individual experiences due to incongruence. Though no longer pathologized by health professionals in their published materials, significant amounts of discrimination exist from the public towards individuals who identify as transgender (James et al., 2016).

Health services

Overall, LGBTQ+ individuals are more likely to experience disparities in receiving health services and report interactions with health care professionals who have negative attitudes (Dilley, Simmons, Boysun, Pizacani & Stark, 2009; Dorsen, 2012). Transgender and gender diverse individuals often face barriers and challenges that sexual orientation minorities might not face (Buck & Obzud, 2018). These impediments can include a variety of medical services related to establishing gender congruence and the associated cost for this medical care (Mizock & Hopwood, 2018). Medical school curricula often do not cover health care issues for transgender

and gender diverse individuals (Thomas & Safer, 2015). Thomas and Safer (2015) conducted a study with medical residents who were surveyed before and after receiving a training lecture as part of their academic curriculum (Thomas & Safer, 2015). The authors reported that after the training lecture, there was a statistically significant difference in residents' knowledge about transgender and gender diverse health care, including hormone therapy and the medical needs often associated with this population (Thomas & Safer, 2015). Basic education and knowledge of transgender health can be incorporated into curricula and have a lasting impact on health care provider services.

Individuals who are transgender and gender diverse might seek out *gender affirming surgery*. This surgery is to "change primary and/or secondary sex characteristics to better align a person's physical appearance with the gender identity" (American Psychological Association, 2015, p. 861). This surgery might also be labeled *gender confirmation surgery*, but has historically been known in the past as sex reassignment surgery or gender reassignment surgery (American Psychological Association, 2015). These surgeries can include a variety of procedures including a mastectomy, hysterectomy, metoidioplasty, phalloplasty, breast augmentation, orchiectomy, vaginoplasty, facial feminization surgery, and/or other surgical procedures (American Psychological Association, 2015). Individuals seeking *hormone replacement therapy* might pursue medical services aimed at the use of hormones to assist in the alignment of that person's physical characteristics with their gender identity (American Psychological Association, 2015). This can include the use of antiandrogens, estrogens or testosterone (American Psychological Association, 2015).

The transgender and gender diverse community has a number of barriers that cisgender individuals do not have when seeking health care services. Transgender and gender diverse

individuals, should they wish to pursue gender affirmation surgery or hormone therapy, are typically required to have at least one letter from a mental health professional that deems them as fit (Budge, 2015). The need for transgender individuals to be deemed "fit" for surgery or hormones is often not a requirement for other individuals, such as a cisgender individual seeking elective surgery such as a breast augmentation. The evaluation process by a mental health professional that is requested by physicians for these medical services can vary; some physicians require one letter while some require more based on the procedure (Budge, 2015).

Discrimination against transgender and gender diverse individuals

While laws against discrimination against transgender and gender diverse individuals exist in some states, cities and communities, there is currently no explicit national anti-discrimination law for transgender and gender diverse individuals that identifies them as a protected class (American Civil Liberties Union, 2018). Although many of the laws do not explicitly protect transgender individuals, several court decisions have ruled in favor of supporting transgender and gender diverse individuals (American Civil Liberties Union, 2018). There is recent debate about which bathrooms transgender and gender diverse individuals should use in a public setting (Schuster, Reisner & Onorato, 2016). Recent efforts by the federal government attempted to ban transgender and gender diverse individuals from serving in the military; these efforts received multiple legal challenges (Karnoski v. Trump, 2017). One judge involved in this case stated that transgender individuals have a "long and well-recognized" history of discrimination (Karnoski v. Trump, 2017, p. 21). The judge stated that the military ban against transgender and gender diverse individuals from serving in the military is "unrelated to their ability to perform and contribute to society" (Karnoski v. Trump, 2017, p. 22). The

American Medical Association stated there was "no medically valid reason" that transgender individuals could not serve in the military (American Medical Association, 2017).

The rampant violence in the US against transgender and gender non-conforming individuals is also of concern. According to the Federal Bureau of Investigations (FBI), a hate crime is a "criminal offense against a person or property motivated in whole or in part by an offender's bias against a race, religion, disability, sexual orientation, ethnicity, gender, or gender identity" (Federal Bureau of Investigations, 2018). However, the FBI did not begin tracking hate crimes against people on the basis of gender identity until the year 2013 (FBI, 2013). Of the nearly 28,000 respondents involved in a 2015 national survey on the experiences of transgender individuals, 46% of respondents reported being verbally harassed and 9% reported being physically attacked (James et al., 2016). 47% of respondents reported being sexually assaulted at some point in their lifetime while 10% reported being sexually assaulted within the past year (James et al., 2016). A 2011 national survey reported that 90% of respondents identified experiencing harassment, mistreatment or discrimination at work while 53% of respondents reported being verbally harassed or disrespected in a public place (Grant et al., 2011). Though the results were not separated by transgender and gender diverse individuals, 73% of all respondents reported experiencing verbal threats because of their LGBTQ identity (Kahn, Johnson, Lee, & Miranda, 2018).

In study published in 2018 that included responses from over 4,000 transgender and gender diverse teenagers, 58% stated that they do not feel safe using the restroom of their choice (Kahn et al., 2018). In the same survey, 65% of students stated they ultimately try not to use the restroom at school to avoid having to make the decision about which gendered-restroom to use (Kahn et al., 2018). Participants were shown to have lower psychological distress if the school

had a Gay-Straight Alliance or a club for LGBTQ students (Heck, Flentje, & Cochran, 2011).

57% of respondents in the survey reported experiencing family rejection (Grant et al., 2011).

Family rejection has shown to result in increased risk for homelessness, as well as increased

likelihood of substance use and suicidality (James et al., 2016; Robinson, 2018).

Accurate media portrayals

In their discussion regarding psychopathology and diagnoses, Basilowski et al. highlight

the reduction in prejudice and stigma seen in art and literature over time (Basilowski et al.,

2018). Basilowski et al. (2018) stated that television shows "are not typically produced to

educate the public or raise awareness but to entertain by either toying with stigmas or even

fomenting them" (Basilowski et al., 2018, "Introduction," para. 4). As this study seeks to use a

media intervention, evaluating past media is useful. This helps to find appropriate representation

of characters that can challenge misconceptions, avoid stereotypes, and provide realistic

portrayals that ultimately are influencing attitudes towards transgender and gender diverse

individuals.

Representation of transgender and gender diverse individuals in television increased

within the past two decades through shows like *Orange is the New Black*, *Glee*, *Transparent* and

Ugly Betty (Hayek et al., 2006; Kohan, Hess, & Herrmann, 2009; Murphy et al., 2009; Soloway

& Sperling, 2014). These shows include transgender characters in lead or recurring roles as

opposed to guest roles or one-episode portrayals. All four of these shows all portray the

difficulties that transgender and gender diverse individuals might face, including transition,

coming out, and acceptance by peers.

Recent films also include more portrayals of transgender and gender diverse individuals.

Eddie Redmayne received an Academy Award nomination for portraying one of the first

individuals to undergo gender confirmation surgery in *The Danish Girl* (Bevan, Fellner, Harrison, Hooper, & Mutrux, 2015). Some portrayals include the transgender and gender diverse character suffering some sort of tragic fate, such as Hilary Swank's Oscar-winning role as a transgender individual who is the victim of murder in Nebraska in *Boys Don't Cry* (Sharp, Hart, Kolodner, Vachon, & Peirce, 2001) or Jared Leto's Oscar-winning role as a transwoman with AIDS (Brenner, Winter, & Vallée, 2013). Often times transgender characters are used as plot devices in films such as Lady Chablis as a gifted comedienne in *Midnight in the Garden of Good and Evil* (Eastwood, 1997) or their gender identity is meant to shock the audience such as Lieutenant Einhorn in *Ace Ventura: Pet Detective* or Jay in *The Crying Game* (Jordan, 1992; Robinson & Shadyac, 1994). More positive and well-rounded portrayals are rare, but do exist such as Felicity Huffman's role as a transgender woman on a road trip with her biological son in the film *Transamerica* (Bastian, Dungan, Morgan, & Tucker, 2005). Kerry suggested that more positive, well-rounded portrayals of trans characters where these individuals are not meant for humor or a plot point will help viewers see that "trans is a lens through which we can gaze broader renderings of the human condition" (Kerry, 2009, p. 712).

Measures of attitudes towards transgender and gender diverse individuals

Scholars interested in LGBTQ+ issues have strived to develop psychometrically strong measures to assist in their research. There are over 80 measures attempting to capture attitudes towards transgender and gender diverse individuals held by cisgender individuals (Morrison et al., 2017) Evaluating the strengths and weaknesses of each measure was necessary to find instruments appropriate for this study.

The development of a reliable and valid scale to measure attitudes towards transgender and gender diverse individuals has been the goal of many researchers over the past decade

(Morrison et al., 2017). There are over 80 measures related to attitudes and beliefs towards

transgender and gender diverse individuals, many with significant psychometric issues (Morrison

et al., 2017). While some authors build upon previous measures or create their own, some

previous research includes surveying participants' attitudes and behavioral intentions through

asking how they would react to situations involving transgender and gender diverse individuals

(Elischberger, Glazier, Hill, & Verduzco-Baker, 2016).

Genderism and Transphobia Scale

Hill and Willoughby (2005) developed one of the first scales to measure these attitudes.

The authors developed the Genderism and Transphobia Scale in 2005. Their 32-item scale

measured disgust towards transgender and gender non-conforming individuals, which the authors

identified as *transphobia*. Their measure also evaluated personal ideologies that created a

negative evaluation of others who displayed gender non-conformity or an incongruence between

sex and gender; the authors identified this as *genderism*. Through their measure, Hill and

Willoughby also evaluated *gender-bashing*, which is described as the physical assault or

harassing behaviors towards individuals who do not conform to gender norms (Hill &

Willoughby, 2005). The GTS measures attitudes on a 7-point Likert-type scale from 1 (*strongly

disagree*) to 7 (*strongly agree*). There are three subscales on the GTS: transphobic attitudes,

genderism, and gender-bashing. Generally, the higher the score the more likely the respondent is

to be intolerant of gender variance (Hill & Willoughby, 2005)

A benefit of the Genderism and Transphobia Scale is that it measures both attitude and

behaviors. However, the lack of discriminant validity between the factors of transphobia,

genderism, and gender-bashing is considered a critique of Hill and Willoughby's measure

(Nagoshi et al., 2008). Another critique by Morrison et al. (2017) is that Hill and Willoughby's

measure was not reviewed by experts in psychometric testing but also not reviewed by any transgender or gender diverse individuals (Morrison et al., 2017). This critique by Morrison et al. questions the selection, wording and refinement of items on the GTS (Morrison et al., 2017). Tebbe, Moradi, and Ege (2014) created two revised versions of the Genderism and Transphobia Scale in 2014 (Tebbe, Moradi, & Ege, 2014).

The GTS has been used in a variety of settings. One team of researchers used the Genderism and Transphobia Scale with a sample of psychiatrists and psychiatric residents in Canada (Ali, Fleisher, & Erickson, 2016). The authors found that research participants held fewer negative attitudes towards transgender individuals compared to a sample of undergraduate students. One team of researchers used the GTS with undergraduate students in Hong Kong (Winter, Webster, & Cheung, 2008). The results indicated that men had more negative views of transgender individuals than women did, while gender variance in men was viewed more negatively than variance in women (Winter, Webster, & Cheung, 2008).

Another team translated the GTS for use with Spanish-speaking adolescents (Carrera-Fernandez, Lameiras-Fernández, Rodríguez-Castro, & Vallejo-Medina, 2014). The authors found that male participants reported more negative attitudes towards transgender individuals than did female participants, and adolescents overall reported more negative attitudes towards transwomen than toward transmen (Carrera-Fernandez et al., 2014).

Nisley (2011) found that counselors who completed the GTS had more favorable attitudes towards transgender individuals when compared to undergraduate students (Nisley, 2011). Hill, one of the authors of the GTS, found that parents of gender diverse children were more tolerant of gender nonconforming behaviors than parents of cisgender children were (Hill, Menvielle, Sica, & Johnson, 2010).

Transphobia Scale

Nagoshi et al. (2008) also created a measure about attitudes toward transgender and

gender non-conforming individuals. Their scale attempted to identify attitudes and behaviors that

would predict transphobia in cisgender individuals (Nagoshi et al., 2008). The authors used past

research and measures of homophobia as the basis for the development of their measure. While

the authors reported high internal consistency, a major limitation of their scale is that it only

includes nine questions, and the norming sample used to validate the measure consists of only

college students, thus creating a possible issue with use with other populations.

Attitudes Towards Transgendered Individuals Scale

The Attitudes Towards Transgendered Individuals scale (ATTI) was created in an effort

to measure attitudes without evaluating overt behavior (Walch, Ngamake, Francisco, Stitt, &

Shingler, 2012). This resulted in the creation of a 20-item scale that measures "cognitive

evaluations and affective reactions" to transgender and gender diverse individuals (Walch et al.,

2012, p. 1284). The authors modified two other scales, the Heterosexual Attitudes Toward

Homosexuals scale and Index of Homophobia scale, by replacing words such as "homosexuals"

with "transgendered individuals." The authors also recognized that transgender and gender

diverse individuals do not have identical experiences as sexual orientation minorities and thus

added eight original items to the ATTI (Walch et al., 2012).

Transgender Attitude and Beliefs Scale

Kanamori and colleagues sought to develop a multi-dimensional measure to assess

attitudes towards transgender and gender non-conforming individuals (Kanamori, Cornelius-

White, Pegors, Daniel, & Hulgus, 2017). Their efforts resulted in the development of the

Transgender Attitude and Beliefs Scale (TABS). The original 96 questions were narrowed down

by the authors into 33 items using confirmatory factor analysis. The authors do not provide a singular or operationalized definition of attitudes in their work. However, they do identify three specific factors that contribute to the scale's overall multidimensional conceptualization of attitudes; these include the participant's own level of interpersonal comfort with a transgender individual, the participants' own beliefs about what constitutes sex and gender, and the participants' own beliefs about the human value of transgender individuals (Kanamori et al., 2017). Higher scores on the TABS indicate "more favorable attitudes toward transgender individuals" (Kanamori et al., 2017, p. 1512). The authors report strong correlation of the TABS with both the ATTI and GTS, thus suggesting convergent validity (Kanamori et al., 2017).

Of the initial sample used to develop the measure, 295 participants were used (Kanamori et al., 2017). This sample was comprised of 132 males and 163 females. Participants identified as African American (5.4%), Asian/Pacific Islander (5.8%), Caucasian (81.4%), Latino/Hispanic (4.7%), Native American (0.3%), biracial or multiracial (2%) and other (0.3%). Of the second sample used to validate the measure, 238 participants were used (Kanamori et al., 2017). This second sample was comprised of 106 males and 132 females, with similar demographic characteristics to the first sample.

The mean scores on the interpersonal comfort subscale were 70.09 for males and 80.67 for females, with a standard deviation of 20.81 and 19.20 respectively. The mean scores on the sex/gender belief subscale were 46.17 for males and 51.31 for females, with a standard deviation of 15.07 and 15.06 respectively. The mean scores on the human value subscale were 30.66 for males and 32.86 for females, with a standard deviation of 4.63 and 3.40 respectively. Due to each scale being rated on a Likert-type scale from 1 to 7, the absolute range for each subscale was 14 to 98, 10 to 70, and 5 to 35 respectively.

There are multiple strengths to the TABS measure including sufficient evidence for reliability and validity, accounting for social desirability in the participants' response styling, and creation of items that reflect civil rights issues of transgender individuals. Morrison et al. (2017) critiqued the authors' claims about construct validity on the TABS measure (Morrison et al., 2017). The critique relates to the questionable validity and psychometric properties of the Genderism and Transphobia Scale.

<center>**Social justice**</center>

Social justice is "a vision of society in which the distribution of resources is equitable and all members are physically and psychologically safe and secure" (Bell, 1997, p. 3). Social justice involves fairness in "resources, rights and treatment" for individuals and groups that do not share equal power in society because of a specific multicultural identification including race, age, gender, sexual orientation, and physical ability (Constantine, Hage, Kindaichi, & Bryan, 2007, p. 24). To bring about social justice, individuals might need to engage in behaviors and concrete actions that interrupt systemic oppression and patterns of ongoing discrimination. These actions can include a variety of steps including direct behavior, engaging in community organization, and political activities. These active behaviors can be defined as *social action*, which are individual or collective behaviors that change injurious conditions to vulnerable populations (Mondros & Wilson, 1994). These active behaviors may ultimately help bring about change that increases equality and equality for all people and groups along with a reduction in oppression and injustice.

Measures of social justice behaviors

Similar to attitudes towards transgender people, scholars have attempted to capture social justice behaviors quantitatively through psychometric measures. Some of the first published

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research focused on measuring and evaluating social justice behaviors began appearing in the

1960s (Kerpelman, 1969). In one study, Kerpelman measured characteristics of activist identity

in over 70 undergraduate college students (1969). Although the measurement techniques used by

Kerpelman might not stand up in contemporary times, Kerpelman was on the right track with

attempting to tease apart ideology from activist behaviors.

Belief in a just world

Three scales were developed that measure an individual's belief in a just world. If an

individual believes in a just world, they might argue that "the world is a fair place in which

people get what they deserve and deserve what they get" (Hellman, Muilenburg-Trevino, &

Worley, 2008, p. 399). Beliefs in a just world are often contradictory to beliefs in the need for

social justice. Belief in a just world argues that unfairness an individual experiences would be

related to their own doing as opposed to societal forces such as institutional racism. While the

three scales measuring belief in a just world do not explicitly measure social justice-related

behaviors or social actions, they evaluate attitudes around societal forces, attitudes regarding a

person's own self-efficacy, and ways that inadvertently blame a victim. Many individuals with a

belief in a just world do not see any issue with current social institutions and might have negative

attitudes towards underprivileged groups (Rubin & Peplau, 1975). Many scales that measure

social justice-related behaviors use a just world scale for validity purposes.

The Just World Scale (JWS) was developed in 1973, and revised in 1975 (Rubin &

Peplau, 1973; Rubin & Peplau, 1975). The initial JWS contains 16 items while the revised

measure includes 20 items (Rubin & Peplau, 1975). A critique of the JWS is that it was not

strategically developed and has poor psychometric properties (Lipkus, 1991). This led to the

development of the Global Belief in a Just World Scale (GBJWS) in 1991 (Lipkus, 1991). The

GBJWS is a scale that measures the extent to which an individual sees the world as a just place. This belief includes the notion that people live in a fair world and get what they deserve based on their own individual actions (Lipkus, 1991). Lipkus' scale consists of only seven items, each of which are evaluated using a 7-point Likert scale that range from strongly agree to strongly disagree. The GBJWS was praised for its evidence for reliability, but was critiqued that it might be inadvertently inflated due to sampling issues (Hellman, Muilenburg-Trevino, & Worley, 2008).

Recent measures

Measures of belief in a just world often focused primarily on ideology about society without measuring any actual behavioral activity. More recent measures include actual evaluation of behavioral activity related to activism and social justice-related behaviors. One recent measure is the Activism Orientation Scale (ASO; Corning & Meyers, 2002). The Activism Orientation Scale measures behaviors related to political activities such as evaluating a respondent's likelihood to donate money to a political candidate or boycott a product for political reasons (Corning & Meyers, 2002). The developers of the measure used a normative sample that included college students and non-college students. The Activism Orientation Scale has 35 items which are divided into two subscales, the Conventional Activism subscale and the High-Risk Activism subscale. All questions are evaluated on a four point Likert-type scale from 0 (*extremely unlikely*) to 3 (*extremely likely).* Conventional activism is related to activities such as donating money or displaying a bumper sticker. High-risk activism consists of questions asking about illegal activities or whether a respondent uses their body to block access to a building. The measure assesses likelihood to engage in political action or community change regarding an issue, but does not assess advocacy on the interpersonal level or micro-level stage. In their

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review of social justice instruments, Fietzer and Ponterotto praised the psychometric development of the measure (Fietzer & Ponterotto, 2015).

The Social Justice Advocacy Readiness Questionnaire (SJARQ) was developed in 2001 by Chen-Hayes (Chen-Hayes, 2001). The questionnaire is intended for use as a self-assessment, not a measure or instrument used to evaluate behaviors in the general population. The 188-item SJARQ focuses on the readiness of individuals in the field of social services to provide culturally competent practice (Chen-Hayes, 2001). The measure evaluates individual values, knowledge, and skills.

The Social Issues Advocacy Scale (SIAS) was developed in 2011 which evaluates the four subscales of political and social advocacy, confrontation of discrimination, political awareness, and social issue awareness (Nilsson, Marszalek, Linnemeyer, Bahner, & Misialek, 2011). A strength of the SIAS is the use of an initial sample to develop the four factors with a second sample being used to confirm the factor structure (Nilsson et al., 2011). The wording of some of the items are useful in evaluating future behaviors of the respondent in addition to engaging in active behaviors as opposed to passive behaviors such as purchasing a bumper sticker. An example of this is, "It is my professional responsibility to confront colleagues who display signs of discrimination toward disabled individuals" (Nilsson et al., 2011, p. 271).

The Basic Social Justice Orientations Scale (BSJO) measures an individual's attitudes on four principles: equality, need, equity, and entitlement (Hülle, Liebig, & May, 2017). The BSJO was tested on a normative sample of German citizens but was designed to be used in general and overall population surveying (Hülle, Liebig, & May, 2017). The measure is 12 questions in length but is focused more on social justice-related attitudes without evaluating any behavioral

actions or potential action strategies. However, a strength of the BSJO is that some items

evaluate the way power is distributed throughout society.

The Social Justice Advocacy Scale (SJAS) was developed as measure in 1996 with over

80 items (Van Soest, 1996). With each item being rated on a 5-point Likert-type scale, the

measure consists of five subscales. Generally, higher scores indicate a higher commitment to

advocacy and social justice (Van Soest, 1996; Windsor, Shorkey, & Battle, 2015). A strength of

this measure is that it requires participants to read a vignette and then answer items based on how

they would respond to the vignette, such as engaging in direct action, passive behaviors, or

actively causing harm in the situation (Van Soest, 1996). Another strength of the measure is the

way it evaluates the respondent's potential actions with a variety of marginalized groups, not just

one (Van Soest, 1996).

A variety of other measures exist that are population- or occupation-specific. Ginns et al.

(2015) developed a social justice scale for the purpose of evaluating beliefs in Australian college

students studying education (Ginns et al., 2015). The instrument was to coincide with measuring

competencies set by the Australian Professional Standards for Teachers; these competencies

include understanding legislation regarding students with disabilities and knowledge of native

cultures (Ginns et al., 2015). The measure had a normative sample of over 300 students from a

university in Australia (Ginns et al., 2015). As the measure has questions directly related to

competencies for teachers, and specifically uses wording regarding education, instruction and

teaching, the measure is not suitable for generalization to other populations. Although based on

competencies for teachers, a strength of the scale is that a specific set of principles and standards

guided the development of the instrument.

One team of researchers developed the Diversity and Oppression Scale (Windsor, Shorkey, & Battle, 2015). This scale measures student learning regarding diversity and oppression based on the requirements set by the Council of Social Work Education (Windsor et al., 2015). The authors define cultural competence as the students' ability to "understand oppression and its effects within the student's lives and the lives of others," "advocate for social justice," and "effectively serve the needs of a culturally diverse group of clients" (Windsor et al., 2015, p. 61). The 22-item measure was normed on graduate students in the field of social work. While the measure is useful in evaluating knowledge and skills in social justice, this scale was developed for use with social work graduate students and not the general population.

Another measure used in evaluating cultural competence is the Multicultural Counseling Knowledge and Awareness Scale (MCKAS; Ponterotto, Gretchen, Utsey, Rieger, & Austin, 2002). The MCKAS has 32 items that evaluate multicultural counseling knowledge and awareness in clinicians in the counseling profession. The MCKAS uses a 7-point Likert-type scale from 1 (*not at all true*) to 7 (*totally true*). The MCKAS utilizes a variety of questions that are useful in evaluating attitudes and beliefs associated with social justice such as "I am aware of the institutional barriers which may inhibit minorities from using mental health services" (Ponterotto et al., 2002, p. 179). However, a sizable number of the questions evaluate beliefs associated with race and ethnicity, and very few evaluate any concrete action strategies. As this measure is used for counselors, it would not be appropriate for use with the general population to evaluate overall social action or social justice-related behaviors.

Solomon four-group design

Overall, this study is attempting to evaluate the effects of an intervention to increase a person's positive attitudes and beliefs towards transgender and gender diverse individuals as well

as increase a person's willingness to engage in social action on behalf of said individuals. A Solomon four-group research design is best suited to integrate the measures of both attitudes and social action as it relates to the media intervention.

This four-group design is useful in determining if statistically significant changes occur after an intervention, and for determining whether change was actually caused by the treatment or intervention. This design also assists in controlling for testing effects (Solomon, 1949). A Solomon four-group design assists in controlling for possible effects that a pretest can have on participants' subsequent performance because they are sensitized to the measures (Solomon, 1949). The design is also useful in identifying if pre-testing cues the participants, understanding the interaction between pre-testing, treatment and post-testing, and what higher scores on post-testing measures indicate (Beck, Boys, Rose, & Beck, 2012). The Solomon four-group design is able to reduce most threats to internal validity (Braver & Braver, 1988).

Past uses of the four-group design covered a range of topics from various disciplines. These have ranged from evaluating the influence of budget and health on eating styles, to evaluating the effect that organization restructuring had on employee job perceptions, to seeing if participants faked results on measures that evaluated emotional intelligence (Probst, 2003; Whitman, Van Rooy, Viswesvaran, & Alonso, 2008; Yin & Özdinç, 2017). Bohecker and Doughty Horn (2016) used a Solomon four-group design to evaluate empathy and self-efficacy in counselors-in-training after participants received a mindfulness group as an intervention (Bohecker & Doughty Horn, 2016). The authors reported positive results, but identified that their sample of only 21 participants was a major limitation of their study (Bohecker & Doughty Horn, 2016).

One team of researchers tested the effect of a critical thinking skills intervention with students (Howard, Tang, & Austin 2015). Although the researchers noted that participants increased their critical thinking skills with or without the intervention, they identified that the training module used as the intervention was not completely new to some students (Howard et al., 2015). The researchers recommended more control of the intervention in future studies (Howard et al., 2015). Another team of researchers used the four-group design to assess the influence of a group counseling model on career decision making with college students (Rowell, Mobley, Kemer, & Giordano, 2014). Pre-testing was completed prior to the start of the four session intervention, and post-testing was administered following the completion of the intervention (Rowell et al., 2014). The researchers found that participants in the experimental group had significantly higher abilities in career decision-making after the intervention (Rowell et al., 2014). Due to the use of the four-group design, limitations discussed by the researchers were mostly related to uncontrollable variables such as self-selection bias and any career exploration that participants may have completed on their own (Rowell et al., 2014).

One team of researchers attempted to understand the impact that video games have on perpetuating beliefs about rape and sexual violence (Beck et al., 2012). The team implemented the Solomon four group design where participants in the experimental group watched game play from Grand Theft Auto. The team found that participants in the experimental group had an increase in misconceptions regarding rape and sexual assault when compared to the control group (Beck at al., 2012). Another team of researchers used a Solomon four group design to implement a health intervention with adolescents (Sarkar, Dasgupta, Sinha, & Shahbabu, 2017). The participants in the experimental group reported a positive increase in several of the variables

being measured. The researchers collected their post-test data three months after the intervention (Sarkar et al., 2017).

Past literature regarding *Star Trek*

This study utilizes an episode of *Star Trek* as the media intervention in an effort to increase positive attitudes towards transgender and gender diverse individuals along with an increase in social action and social justice-related behaviors. No past research study utilized this episode from *Star Trek*, or any episode to my knowledge, to change attitudes related to social justice. Here I will provide a brief review of existing literature related to the impact of the numerous Star Trek television shows and feature films.

A wide-range of scholarly commentary exists surrounding the show and characters, as well as the messages and themes of the varied episodes. Seitz (2017) referenced an episode of Star Trek to discuss anti-colonial sentiments (Seitz, 2017). Regarding the issue of reparations, Seitz uses the example of a character who experienced colonialism as a way to discuss coalition politics, and post-colonial emotions (Seitz, 2017). In her dissertation, Faber discussed the implications of the ship's computer having feminine vocal qualities as this relates to gender norms (Faber, 2014). Faber discussed the trend of female-sounding voices, such as the computer on Star Trek, and the implications it has on the female-sounding voice of Apple known as Siri (Faber, 2014).

Another author discussed the growth and development of a character through the lens of psychoanalysis (Rashkin, 2011). Rashkin looks at the character of Data, an android, and examines his development to discuss the differences between psychoanalytic and cognitive behavioral modes of therapy. Another scholar uses a female character, the first female captain in the show's history, as a case study to evaluate the relationship between gender and leadership

(Bowring, 2004). Bowring discusses critical elements of the character's portrayal at different points in the show and discusses the character through the lens of heterosexism. Kerry (2009) discusses the representation of gender in the show and how a variety of portrayals were included such as a third gender, male characters being pregnant, and androgyny (Kerry, 2009).

The fervent fans of Star Trek are often known as *Trekkies* (Jinda, 1994). One scholar discussed identities and behaviors of fans who identify with the show and movies, and experience transportation into the narrative (Taylor, 2015). Geraghty discussed how fans wrote fan letters to the show and cast members over the years to convey how they positively used various episodes for coping (2006). Kozinets (2001) spent time at conventions observing the fan community and qualitatively collecting data. He discussed the culture among the Star Trek fan base and their behaviors through the lens of a culture of consumption (Kozinets, 2001). Jindra discussed the religious aspects to Star Trek fans such as how they find spiritual meaning in the show and the persecution they might face for identifying as fans (Jindra, 1994).

Conclusion

Transgender and gender diverse individuals face discrimination, violence, and a variety of other barriers that cisgender individuals might not face. The goal of this proposed study is to see whether a simple intervention can increase positive attitudes towards this marginalized group along with a corresponding increase in positive intention to engage in social action by the participants of this study.

The identification of appropriate measures of attitudes towards transgender and gender diverse individuals, as well as measures of social action and social justice-related behaviors, is needed to adequately assess both of these variables. This study can ultimately assist in developing prevention efforts that will reduce future discrimination along with the potential violence toward transgender and gender diverse individuals.

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APPENDIX B: Demographic Questionnaire

Participant Demographics

1) **How old are you?**
   ###

2) **What is your gender:**
   Male
   Female
   Transgender Female
   Transgender Male
   Genderfluid/Gender non-binary
   Other not listed: _____

3) **What is your sexual orientation?**
   Asexual
   Bisexual
   Gay
   Heterosexual/Straight
   Lesbian
   Pansexual
   Queer
   Other not listed: _____

4) **What is your primary race or ethnic identification?**
   American Indian/Alaskan
   Asian American/Pacific Islander
   Biracial/Multiracial
   Black/African American
   Hispanic/Latino/a/x
   White/European American
   Other not listed: _____

5) **What year in college are you?**
   First year undergraduate
   Second year undergraduate
   Third year undergraduate
   Fourth year undergraduate
   Fifth year undergraduate
   Graduate student
   Other not listed: _____

6) **What, if any, is your religious or spiritual orientation?**
   Agnostic
   Atheist

Buddhist
Christian
Jewish
Muslim
Non-religious
Other not listed: _____

7) **What is the zip code of your home or the area where you grew up?**
###

8) **What, if any, is your political affiliation?**
Democrat
Independent
Libertarian
Republican
Other not listed: _____

9) **As a student, do you qualify for federal financial aid? This includes direct loans, Stafford loans, and Perkins loans.**
Yes
No
Not sure

10) **Do you regularly engage in volunteer or service work?**
Yes
No

11) **If you answered yes to the previous question, is it a requirement of an organization you are a part of? (ie: Greek life)**
Yes
No

12) **Please enter the last four digits of your telephone number followed by the first letter of your first name and first letter of your last name. (Example, Rob Smith with a phone number of 234-5678 would use the pin number 5678RS.)**

This pin number will be used to match your questionnaires together.
#####

13) **Please enter your email address.**
####

APPENDIX C: Transgender Attitudes and Beliefs Scale

Items are scored on a Likert scale with 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neutral, 5 = somewhat agree, 6 = agree, 7 = strongly agree

(13 items are reverse scored, italics mine)

Factor 1: Interpersonal Comfort

1) I would feel comfortable having a transgender person into my home for a meal.

2) I would be comfortable being in a group of transgender individuals.

3) *I would be uncomfortable if my boss was transgender.*

4) *I would feel uncomfortable working closely with a transgender person in my workplace.*

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 child brought home a transgender friend, I would be comfortable having that person into 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) *If a transgender person asked to be my housemate, I would want to decline.*

11) I would feel uncomfortable finding out that I was alone with a transgender person.

12) I would be comfortable working for a company that welcomes transgender individuals.

13) *If someone I knew revealed to me that they were transgender, I would probably no longer be as close to that person.*

14) *If I found out my doctor was transgender, I would want to seek another doctor.*

Factor 2: Sex/Gender Beliefs

15) *A person who is not sure about being male or female is mentally ill.*

16) Whether a person is male or female depends upon whether they feel male or female.

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17) If you are born male, nothing you do will change that.

18) Whether a person is male or female depends strictly on their external sex-parts.

19) Humanity is only male or female; there is nothing in between.

20) If a transgender person identifies as female, she should have the right to marry a man.

21) Although most of humanity is male or female, there are also identities in between.

22) All adults should identify as either male or female.

23) A child born with ambiguous sex-parts should be assigned to be either male or female.

24) A person does not have to be clearly male or female to be normal and healthy.

Factor 3: Human Value

25) Transgender individuals are valuable human beings regardless of how I feel about transgenderism.

26) Transgender individuals should be treated with the same respect and dignity as any other person.

27) I would find it highly objectionable to see a transgender person being teased or mistreated.

28) Transgender individuals are human beings with their own struggles, just like the rest of us.

29) Transgender individuals should have the same access to housing as any other person.

APPENDIX D: Social Justice Scale

Items are scored on a Likert scale with 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neutral, 5 = somewhat agree, 6 = agree, 7 = strongly agree

Factor 1: Attitudes Towards Social Justice

1) I believe that it is important to make sure that all individuals and groups have a chance to speak and be heard, especially those from traditionally ignored or marginalized groups.

2) I believe that it is important to allow individuals and groups to define and describe their problems, experiences and goals in their own terms.

3) I believe that it is important to talk to others about societal systems of power, privilege, and oppression.

4) I believe that it is important to try to change larger social conditions that cause individual suffering and impede well-being.

5) I believe that it is important to help individuals and groups to pursue their chosen goals in life.

6) I believe that it is important to promote the physical and emotional well-being of individuals and groups.

7) I believe that it is important to respect and appreciate people's diverse social identities.

8) I believe that it is important to allow others to have meaningful input into decisions affecting their lives.

9) I believe that it is important to support community organizations and institutions that help individuals and group achieve their aims.

10) I believe that it is important to promote fair and equitable allocation of bargaining powers, obligations, and resources in our society.

11) I believe that it is important to act for social justice.

Factor 2: Social Justice Perceived Behavioral Control

12) I am confident that I can have a positive impact on others' lives.

13) I am certain that I possess an ability to work with individuals and groups in ways that are empowering.

14) If I choose to do so, I am capable of influencing others to promote fairness and equality.

15) I feel confident in my ability to talk to others about social injustices and the impact of social conditions on health and well-being.

16) I am certain that if I try, I can have a positive impact on my community.

Factor 3: Social Justice Subjective Norms

17) Other people around me are engaged in activities that address social injustices.

18) Other people around me feel that it is important to engage in dialogue around social injustices.

19) Other people around me are supportive of efforts that promote social justice

20) Other people around me are aware of issues of social injustices and power inequalities in our society.

Factor 4: Social Justice Behavioral Intentions

21) In the future, I will do my best to ensure that all individuals and groups have a chance to speak and be heard.

22) In the future, I intend to talk with others about social power inequalities, social injustices, and the impact of social forces on health and well-being.

23) In the future, I intend to engage in activities that will promote social justice.

24) In the future, I intend to work collaboratively with others so that they can define their own problems and build their own capacity to solve problems.

APPENDIX E: Informed Consent

You are being invited to participate in a research study about attitudes. This study is being conducted by Mark D. Taracuk, MSEd, NCC under the direction of Julie Koch, Ph.D., from the School of Community Health Sciences, Counseling and Counseling Psychology at Oklahoma State University. Mr. Taracuk is currently a graduate student in the Counseling Psychology Ph.D. program at Oklahoma State University. The data gathered in this study will be used in his doctoral dissertation.

Procedures
Some participants will answer a questionnaire before watching a TV episode. Some will answer the questionnaire after the TV episode. Some will have a questionnaire before and after the episode. The survey will take approximately 20 minutes to complete (each time). The episode viewing will take approximately 45 minutes to complete. Participation is voluntary and there are no direct incentives for participating in the study. You may choose not to participate or discontinue participation at any time without consequence.

Confidentiality
Because participants will watch a TV episode together in a group, it might be possible that others will know that you participated in this study. The researchers will make every effort to ensure that information about you remains confidential, but cannot guarantee total confidentiality. We will ask all group members to keep any information they hear in this group confidential, but cannot guarantee that everyone will do so.

Several procedures will be taken to protect your confidentiality. The data collected through online surveys will be password-protected on a locked and encrypted flash drive, and only the researcher and individuals responsible for research oversight will have access to the records. The information you give in the study will be anonymous. This means that your name will not be collected or linked to the data in any way. Data collected in the study will be destroyed after 5 years.

Due to the personal nature of some of the questions and to encourage honest responses, you will not be asked to provide your name, address, or departmental affiliation. Computer IP addresses will not be collected. Any demographic information such as your age, ethnicity, or level of education will be presented in summary form when findings are reported. The research team works to ensure confidentiality to the degree permitted by technology. It is possible, although unlikely, that unauthorized individuals could gain access to your responses because you are responding online. However, your participation in this online survey involves risks similar to a person's everyday use of the internet. If you have concerns, you should consult the survey provider privacy policy. If you are participating in this study for a course (such as getting points), your name will be provided to your instructor, but they will not have any access to other information such as how you answered a question.

Please note that Qualtrics, the online survey system, has specific privacy policies of its own. You should be aware that this web service may be able to link your responses to your ID in ways that are not bound by this consent form and the data confidentiality procedures used in this study, and

if you have concerns you should consult these services directly. Qualtrics' privacy statement is provided at: http://qualtrics.com/privacy-statement.

It is unlikely, but possible, that others responsible for research oversight may require us to share the information you give us from the study to ensure that the research was conducted safely and appropriately. We will only share your information if law or policy requires us to do so.

Risks and Benefits
There are no risks involved in participating in the study in excess of those you would experience in everyday life. There are no direct benefits to you.

Compensation
You will receive no direct compensation for your participation. You will receive one entry into the drawing for one of four $25.00 Amazon gift cards when you complete the viewing and another when you complete the questionnaires two weeks later. You will be notified via e-mail if you are selected in the drawing. The email address you provide will be kept separate from your answers.

Voluntary Nature of the Study
Your participation in this research is voluntary. There is no penalty for refusal to participate, and you are free to withdraw your consent and participation in this project at any time. The alternative is to not participate. You can skip any questions that make you uncomfortable and can stop the survey at any time.

Contacts and Questions
The Institutional Review Board (IRB) for the protection of human research participants at Oklahoma State University has reviewed and approved this study. If you have questions about the research study itself, please contact the Principal Investigator at Mark.Taracuk@okstate.edu.

If you have questions about your rights as a research volunteer or would simply like to speak with someone other than the research team about concerns regarding this study, please contact the IRB at (405) 744-3377 or irb@okstate.edu. All reports or correspondence will be kept confidential.

Researcher: Mark D. Taracuk, M.S.Ed., NCC
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IRB Chair: Hugh Crethar, Ph.D.
Oklahoma State University
Stillwater, OK 74078,
Phone: (405) 744-3377
Email: irb@okstate.edu

Thank you for your time and participation. If you would like to participate in this study, please select the link provided below:

APPENDIX F: Institutional Review Board Approval Letter

Oklahoma State University Institutional Review Board

Date:	09/11/2018
Application Number:	ED-18-117
Proposal Title:	Use of a Media Intervention to Increase Positive Attitudes toward Transgender and Gender Diverse Individuals:
Principal Investigator:	Mark Taracuk
Co-Investigator(s):	
Faculty Adviser:	Julie Koch
Project Coordinator:	
Research Assistant(s):	
Processed as:	Expedited

Status Recommended by Reviewer(s): Approved

Approval Date:	**09/11/2018**
Expiration Date:	**09/10/2019**

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

The final versions of any recruitment, consent and assent documents bearing the IRB approval stamp are available for download from IRBManager. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be approved by the IRB. Protocol modifications requiring approval may include changes to the title, PI, adviser, other research personnel, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms.
2. Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.
3. Report any unanticipated and/or adverse events to the IRB Office promptly.
4. Notify the IRB office when your research project is complete or when you are no longer affiliated with Oklahoma State University.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact the IRB Office at 223 Scott Hall (phone: 405-744-3377, irb@okstate.edu).

Sincerely,

Hugh Crethar, Chair Institutional
Review Board

VITA

Mark Douglas Taracuk

Candidate for the Degree of

Doctor of Philosophy

Dissertation: USE OF A MEDIA INTERVENTION TO INCREASE POSITIVE ATTITUDES
                 TOWARD TRANSGENDER AND GENDER DIVERSE INDIVIDUALS

Major Field: Counseling Psychology

Biographical:

        Education:

        Completed the requirements for the Doctor of Philosophy in Counseling Psychology at
        Oklahoma State University, Stillwater, Oklahoma in July, 2020.

        Completed the requirements for the Master of Science in Education in Counseling and
        Counselor Education at Indiana University, Bloomington, Indiana in 2016.

        Completed the requirements for the Bachelor of Arts in Psychology at Ohio State
        University, Columbus, Ohio in 2008.

        Experience:

        APA-Accredited Doctoral Internship at Georgia Southern University
        Graduate Assistant at OSU Counseling and Counseling Psychology Clinic 2017-2019
        Doctoral Practicum at OSU-Tulsa Counseling Center 2017-2018
        Doctoral Practicum at Wings of Hope Family Crisis Services 2016-2017