IS A PERSON'S MEMORY OF NEWS EXPOSURE RELATED TO THEIR ATTITUDES
TOWARDS TRANSGENDER INDIVIDUALS?

A Thesis
by
ALLISON SAMS

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Abstract

IS A PERSON'S MEMORY OF NEWS EXPOSURE RELATED TO THEIR ATTITUDES
TOWARDS TRANSGENDER INDIVIDUALS?

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Previous studies have examined the factors that contribute to attitudes towards

lesbian, gay, bisexual, and transgender (LGBT) individuals. However, research

specifically on attitudes towards transgender individuals is scarce. Due to the negative

mental health outcomes experienced by transgender people, further research on

attitudes towards transgender people is necessary. This study investigated how

memory of exposure to affirming and non-affirming news about transgender people

relates to attitudes towards this at-risk group. There is no research on how news

exposure relates to attitudes towards transgender individuals, but other research

indicates that the news influences attitudes towards other marginalized groups. An

online survey was conducted using a sample of undergraduate students ($N = 250$). I

hypothesized that (a) perceived news exposure would be positively correlated with

attitudes towards transgender individuals, with personal contact moderating this

relationship and (b) that the news sources used would mediate the relationship

between political beliefs and attitudes. The hypotheses were not supported for the

sample as a whole. However, memory of news exposure was significantly positively correlated with attitudes towards transgender individuals for males. Unlike prior studies that only examined how a variety of factors (e.g. religiosity, political ideology, and personal contact) related to attitudes towards lesbian and gay individuals, this study expanded the literature by finding that these factors related to attitudes towards transgender individuals specifically. This study found that women, people who were less religions, more politically liberal, and had contact with transgender individuals tended to have more positive attitudes towards transgender individuals.

Keywords: LGBT, Transgender, Cisgender, Attitudes, Media, News, Personal Contact

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Lastly, thank you to my mother for providing me with endless support and continuous encouragement throughout the process of researching and writing this thesis.

Dedication

This thesis is dedicated to my niece, Elaina. I hope that you never lose your sense of wonder. Keep questioning, learning, and discovering all that you can about this world. Always follow your passion and fight for what you believe in. You are smart, you are strong, you are beautiful, and you can achieve anything that you set your mind to!

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Is A Person's Memory of News Exposure Related to Their Attitudes Towards Transgender

Individuals?

A transgender individual is someone whose gender identity is different than the

biological sex that was assigned at birth (Shulman et al., 2017). A cisgender individual is

someone whose gender identity is the same as the biological sex that was assigned at birth

(Hackimer, 2016). It has been estimated that 0.6%, or 1.4 million, of adults in the United

States are transgender (Flores, Herman, Gates, & Brown, 2016). Previous studies have

examined the factors that contribute to attitudes towards lesbian, gay, bisexual, and

transgender (LGBT) individuals. However, research specifically on attitudes towards

transgender individuals is scarce. Due to the negative mental health outcomes experienced by

transgender people, further research on attitudes towards transgender people is necessary.

This study investigated how memory of exposure to affirming and non-affirming news about

transgender people relates to attitudes towards this at-risk group. There is no research on how

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survey was conducted using a sample of undergraduate students (N = 250). I hypothesized

that (a) perceived news exposure would be positively correlated with attitudes towards

transgender individuals, with personal contact moderating this relationship and (b) that the

news sources used would mediate the relationship between political beliefs and attitudes. The

hypotheses were not supported for the sample as a whole. However, memory of news

exposure was significantly positively correlated with attitudes towards transgender

individuals for males. Unlike prior studies that only examined how a variety of factors (e.g.

religiosity, political ideology, and personal contact) related to attitudes towards lesbian and

gay individuals, this study expanded the literature by finding that these factors related to attitudes towards transgender individuals specifically. This study found that women, people who were less religions, more politically liberal, and had contact with transgender individuals tended to have more positive attitudes towards transgender individuals. Transgender individuals are at a higher risk for experiencing discrimination and physical, verbal, and sexual assault compared to cisgender individuals (Haas, Rodgers, & Herman, 2014; Shulman et al., 2017). Transgender individuals are also at an increased risk of substance abuse, depression, anxiety, and suicide compared to cisgender individuals (Dorsen, 2012; Haas, Rodgers, & Herman, 2014; Shulman et al., 2017). These negative health outcomes among transgender individuals may be partially due to the discrimination and microaggressions that they commonly experience. Microaggressions refer to brief, subtle discriminatory actions or statements towards members of an oppressed group from friends, family, healthcare providers, and the media (Austin & Goodman, 2017). These transphobic acts lead to short-term and long-term negative physical and emotional consequences (Austin & Goodman, 2017) and may contribute to transgender individuals being 22 times more likely to die by suicide than cisgender individuals (Adams, Hitomi, & Moody, 2017). It is imperative to investigate the factors that may be contributing to negative attitudes towards transgender individuals, such as gender, religiosity, political beliefs, personal contact, and the media, which is the focus of the proposed study.

Some may argue that a person's attitudes are not important to study because research has shown that people do not always act in accordance with their attitudes (Krauss, 1995). In fact, a meta-analysis of 88 studies showed that there is a moderate correlation between attitudes and behaviors. This means that people's attitudes will not necessarily reflect how

they behave and treat others (Krauss, 1995). However, a previous study conducted on health care workers' attitudes towards lesbian and gay individuals found that nurses' negative attitudes towards lesbian and gay individuals correlate with a low willingness and intent to provide quality care (Hou et al., 2006). Although Hou and colleagues only looked at the intent of nurses to provide care and did not investigate if intent translated to actual behavior, other research has shown that nurses do not always provide quality care to transgender individuals. This may occur if healthcare workers are unable to separate their personal beliefs from their duty to provide individuals with adequate care (Dorsen, 2012). A study conducted on the factors that may contribute to the high rate of suicide among transgender individuals found that 60% of individuals who had attempted suicide had been refused healthcare due to their gender identity (Haas et al., 2014). Therefore, attitudes towards transgender people may affect the behavior of caregivers and others, which can have harmful, and possibly deadly, effects.

A possible factor that may influence attitudes towards transgender individuals is the media, which is the focus of the current study. How the news media impacts perceptions of the transgender population has not been studied, but there is research on how media exposure relates to attitudes towards other marginalized groups. A study done on the English riots that occurred in 2011—following a police shooting in England—found that before the riots, newspaper readers and non-newspaper readers who completed the annual British Social Attitudes survey did not have significantly different attitudes towards welfare recipients, who made up the majority of the rioters (Reeves & de Vries, 2016). Interviews done post-riot showed that newspaper readers were more likely than non-readers to believe that welfare

recipients were undeserving of government help. Reeves and de Vries (2016) attribute this change in attitudes towards welfare recipients to the negative news coverage of the riots.

Exposure to the news has also been found to relate to attitudes towards other minorities, including Muslims. A study done by Ahmed (2012) in India investigated what aspects of the media related to these attitudes. It was found that teenagers who used the news media as their primary source of information had more negative attitudes towards Muslims and Islam than those who cited family, friends, school or books as their primary source of information. Participants were also asked to report if they believed that media portrayals of Muslims were negative or positive. Individuals who had a Muslim friend reported that media portrayals of Muslims tended to be negative. On the other hand, those who did not have any Muslim friends reported that the media shows positive portrayals of Muslims and Islam (Ahmed, 2012). A content analysis of the five most mentioned foreign news sources (BBC, N.Y. Times, Fox News, CNN and Al Jazeera English) was performed to look at the accuracy of participants. Ahmed found that overall, news sources more often portrayed Muslims negatively than positively. Fox News was found to have the most negative portrayal of Muslims and Islam, followed by BBC, N.Y. Times, CNN, and lastly, Al Jazeera English.

The relationship between news exposure and attitudes was also studied by Schemer (2012), who conducted an investigation on how the media affected attitudes towards immigrants during a political campaign in Switzerland. Surveys were administered by phone in two waves, the first in April 2008, before the referendum, and the second in June 2008, after the referendum took place. Participants identified the news source that they used most and a content analysis of the sources was conducted. Articles about immigration that were posted between the two surveys were coded as being positive or negative and an estimate of

participant exposure to the news stories was calculated. It was found that news sources that aligned with the political Right portrayed immigrants in a negative light, while those on the political Left tended to argue for immigrant rights. Schemer found that stereotypical attitudes about immigrants were increased by the negative news portrayals of this minority group over the course of two months. Being frequently exposed to positive news portrayals also led to a decrease in stereotypical negative attitudes towards immigrants. However, these effects were only present in those with low to moderate knowledge on the issue. Participants with high knowledge about immigration were not affected by news exposure. The results of the analyses of news sources by Ahmed (2012) and Schemer (2012) support the idea that overall, conservative news sources tend to portray minorities in a more negative light than liberal news sources. Therefore, it is likely that conservative news sources also depict transgender individuals in a similar light.

The news media has also been found to affect attitudes towards defendants during jury decision making (Ruva & Guenther, 2015) via pretrial publicity, which refers to the news coverage of a criminal case that is shown before a trial occurs. Pretrial publicity may include details about the case, information about a defendant's prior criminal record, or information about the character of the defendant. When mock-jurors are exposed to negative pretrial publicity about a defendant, they are more likely to rate the defendant as less credible and are more likely to give a guilty verdict than when they are not shown negative pretrial publicity. Although mock-jurors were instructed to disregard any pretrial publicity that they saw, all juries who were exposed to pretrial publicity referenced the information during verdict deliberation (Ruva & Guenther, 2015). These findings support the notion that

individuals' judgments and attitudes towards other individuals or groups can be shaped, in part, by the news to which they are exposed.

To this point, only one study has examined how media coverage is related to attitudes towards transgender individuals. Gillig, Rosenthal, Murphy, and Folb (2017) surveyed the viewers of the television show "Royal Pains." Participants who had seen a recent episode that featured a transgender character for the first time completed a survey about their attitudes towards the episode and a questionnaire measuring their attitudes towards transgender individuals. Viewers of the show who had not seen the recent episode only completed the attitudes towards transgender individuals measure. The episode showed a transgender teenage girl who was having medical complications due to her hormone replacement therapy. Participants who had seen the episode had more positive attitudes towards transgender individuals than those who had not seen the episode. It was also found that individuals who reported having been exposed to additional TV storylines featuring transgender individuals had more positive attitudes towards transgender individuals (Gillig et al., 2017). It is possible that this finding is due to individuals with positive attitudes towards transgender people being more likely to seek out TV shows about transgender people relative to those with negative attitudes. Gillig et al. (2017) attempted to control for this by using the TV show "Royal Pains," since the show rarely featured any transgender characters. Therefore, it is unlikely that viewers of the show watched it for its LGBT storyline. However, due to the correlational nature of the findings in this study, the authors were unable to make causal claims about the relationship between viewing transgender characters and attitudes towards transgender individuals.

Only a limited number of studies have been published regarding the attitudes people hold towards transgender individuals. Although research on transgender individuals is sparse, there has been substantial research conducted on attitudes towards lesbian and gay individuals, with some studies researching LGBT people inclusively. Most previous research that includes transgender individuals has grouped those who fall under the LGBT umbrella together, rather than focusing on transgender people. However, there are differences in rates of victimization and in outcomes of those who identity as lesbian, gay, and bisexual compared to those who are transgender (Hackimer, 2016), making it important to conduct separate research on transgender individuals. For example, approximately 10-20% of lesbian, gay, and bisexual individuals have attempted suicide. In comparison, 41% of transgender individuals have attempted suicide (Haas et al., 2014). Due to the high rates of negative outcomes for transgender individuals, and the lack of research on this population, research on attitudes towards the transgender population is necessary.

Previous studies have examined several factors that are related either to attitudes towards lesbian and gay individuals or to attitudes towards LGBT individuals as a whole, but few studies specifically examine transgender individuals. Race, education, political beliefs, personal contact, gender, and religiosity were found to be strongly correlated with attitudes towards lesbian and gay people or the LGBT community (Antoszewski, Kasielska, Jedrzeczak, & Kruk-Jeromin, 2007; Brown & Henriquez, 2008; Hou et al., 2006; Kanamori & Cornelius-White, 2016; Smith, 1993). Brown and Henriquez (2008) found that white people reported having more positive attitudes towards lesbian and gay individuals than non-white people. However, the majority of the sample was white and non-whites were grouped together. Level of education was found to be positively correlated with favorable attitudes

towards lesbian and gay people (Smith, 1993). In a sample of nurses, higher levels of education were correlated with more positive attitudes towards lesbian and gay individuals. Political beliefs were also found to correlate with attitudes toward lesbian and gay people (Brown & Henriquez, 2008). Brown and Henriquez (2008) had participants rate their political leaning on a scale, with 1 being liberal and 7 being conservative. They found that individuals who reported being more conservative had more negative attitudes towards lesbian and gay individuals than those who reported being more liberal.

Personal contact is also related to attitudes towards LGBT individuals. Those who know someone who identifies as lesbian or gay tend to be more politically liberal and tend to have more positive attitudes towards lesbian and gay individuals (Brown & Henriquez, 2008; Hou et al., 2006). Although personal contact is related to positive attitudes, West, Hotchin, and Wood (2017) found that real personal contact is not necessary in order to change attitudes. West et al. (2017) manipulated imagined contact by telling participants in the imagined contact condition to imagine that they were meeting a transgender woman for the first time and that it was a relaxed, positive, and comfortable experience. Participants in the control group were instructed to imagine that they were meeting a stranger for the first time. Individuals in the control group did not show a change in attitudes towards transgender individuals after the experimental manipulation. However, imagining contact with a transgender woman was effective in improving participants' implicit attitudes towards transgender individuals and led them to be more likely to sign a pro-transgender petition. Imagined contact was most effective for participants who had stronger initial prejudices. This aligns with Allport's intergroup contact theory, which has been used to reduce prejudices by

connecting in-group and out-group members through common goals and shared interests (Allport, 1954; Solomon & Kurtz-Costes, 2017).

Religiosity is also correlated with attitudes towards lesbian and gay individuals. Smith (1993) found that higher religiosity among nurses was correlated with more negative attitudes towards lesbian and gay individuals. However, there were significant differences in attitudes between faiths. Those who identified as Protestant or Catholic reported negative attitudes. On the other hand, those who identified at Jewish had more positive attitudes that were similar to those who reported not being religious. Brown and Henriquez (2008) discovered similar results using an undergraduate student sample. Participants who identified as Christians reported more negative attitudes towards lesbian and gay individuals than those who reported not being religious.

Multiple studies have found that there are gender differences in attitudes towards transgender individuals (Antoszewski et al., 2007; Kanamori & Cornelius-White, 2016). Women are generally more accepting of transgender individuals than men (Kanamori & Cornelius-White, 2016). Women are also more understanding of the medical needs (e.g., hormone treatment and surgical procedures) of those in the transgender community than are men (Antoszewski et al., 2007).

Media Usage, Trends, and Political Differences

Previous research supports the hypothesis that being exposed to news about a population can lead to a change in attitudes towards that group (Reeves & de Vries, 2016; Schemer, 2012). Performing a Google Trends search of the word "transgender" may further suggest that individuals are influenced by the news that they read. A Google Trends search shows the frequency of searches for a term over the past five years (Data source: Google

Trends (https://www.google.com/trends), 2018). Each of the four peaks in searches for the term "transgender" occurred at the same time that major news stories about the transgender population were released. One peak occurred in June 2015 when Caitlyn Jenner released her name. Another occurred in May 2016 when House Bill 2 (HB2) was passed in North Carolina. HB2 made it illegal for cities to expand upon state laws regarding the use of public accommodations and workplace discrimination. The passing of HB2 nullified local ordinances that protected transgender individuals' rights to use the restroom that aligns with their gender identity. The frequency of google searches peaked again in February 2017 when news was released that North Carolina lawmakers were going to vote to repeal HB2. Finally, a peak occurred in July 2017 when a transgender military ban was announced. This suggests that individuals read news stories concerning transgender individuals or policies and actively seek out more information using a Google search.

As mentioned earlier, Brown and Henriquez (2008) found that there are political differences in attitudes towards lesbian and gay individuals, with conservative individuals having more negative attitudes than liberal individuals. This difference in attitudes may be partially due to the news sources that individuals seek out. The types of news stories to which people are exposed depends in part on their political beliefs. Mitchell, Gottfried, Kiley, and Matsa (2014), from Pew Research Center, conducted an online study with 2,901 participants on political beliefs and the use of 36 news sources. Of the 36 sources, NPR, Fox News, and CNN were the most commonly used. They found that political beliefs relate to the use of different news sources. Liberal individuals tend to use multiple news sources, including sources that are conservative leaning. On the other hand, conservative individuals tend to only use one source that aligns with their beliefs. Mitchell et al. (2014) also found that

conservative individuals are more likely to see Facebook posts with political opinions that are similar to their own than are liberal individuals.

Due to a lack of research, it is unclear if using non-TV news (e.g. newspapers, radio, internet) rather than TV news affects political beliefs or vice versa. Lawrence (2014) found that individuals who use non-TV news have an increased likelihood of engaging in political behaviors such as voting or discussing politics compared to those who use TV news. Lawrence (2014) did not find a difference in the political knowledge of individuals who used TV news compared to those who used non-TV news.

The Present Study

At this time, no study has investigated how news exposure relates to attitudes towards transgender individuals. The current study aims to fill this gap in the literature using a correlational design examining how memory for news exposure to news that is perceived as transgender affirming and news that is transgender non-affirming relates to participants' attitudes towards transgender people. Perceived exposure to news is predicted to positively correlate with attitudes towards transgender people. Personal contact with someone who is transgender is expected to moderate the relationship between news exposure and attitudes towards transgender individuals. Lastly, I predicted that the relationship between one's political beliefs and attitudes towards transgender individuals will be meditated by the news sources that they use and their perceived news exposure. Previous research on attitudes has primarily focused on the LGBT population as a whole, with very few studies concentrating on the transgender community. Therefore, the present study will investigate if factors such as the news media, political beliefs, and personal contact, relate to attitudes towards transgender individuals.

Hypothesis 1: News exposure will correlate with attitudes towards transgender individuals, with higher scores on news exposure correlating with more positive attitudes and lower scores correlating with more negative attitudes.

Hypothesis 2: Having personal contact with a transgender individual will moderate the relationship between perceived news exposure to transgender non-affirming news and attitudes towards transgender individuals, causing news exposure to have less of an effect on attitudes.

Hypothesis 3: The political ratings of news sources used and perceived news exposure are predicted to mediate the relationship between participants' political leaning and attitudes towards transgender individuals (see Figure 1 for mediation model). Using conservative news sources, and having more exposure to transgender non-affirming news, are expected to explain part of the relationship between conservative political beliefs and negative attitudes. Using liberal news sources, and having more exposure to transgender affirming news, are expected to mediate the relationship between liberal political beliefs and positive attitudes.

Method

Participants

Appalachian State University's Institutional Review Board determined this study to be exempt from IRB oversight. The participants in this study were 250 cisgender undergraduate students (48 male, 200 female, 2 unreported) from psychology classes at Appalachian State University (see Table 1 for complete demographic information). A statistical power analysis (Faul, Erdfelder, Lang, & Buchner, 2007) determined that at least 219 participants would need to be recruited for the current study in order to detect a small to moderate effect size ($R^2 = .08$, $\alpha = .05$, $\beta = .05$). The ages of the participants ranged from 18 to 26 ($M = 19.56$, $SD = 1.49$). The participants accessed the study though the SONA system, which is an online participant management system. The students who participate in the SONA studies receive course credit in return for their participation. Students had reasonable alternatives to research participation to attain the credit.

Materials

Demographics. Participants completed demographic information including age, race, year in school, SES, and gender. SES and gender were analyzed as exploratory factors. See Appendix A for the demographic questionnaire.

Perceived Transgender News Exposure. Participants were given a list of 10 popular news stories from 2015-2018 concerning the transgender population or individuals. News stories were chosen based on an analysis of a google trends search of the word "transgender." Participants indicated which stories they recalled seeing in the news and selected if the news that they saw about each topic was affirming of transgender individuals and/or non-affirming of transgender individuals. Affirming news stories received +1 point and non-affirming news stories received -1 point, giving participants a possible final score of -10 to 10 for news

exposure, with lower scores indicating more memory for exposure to non-affirming news and higher scores indicating more memory for exposure to affirming news. See Appendix B for the Perceived News Exposure measure.

Attitudes towards Transgender Individuals. Attitudes towards transgender individuals were assessed using a revised Attitudes towards Transgendered Individuals Scale (Walch et al., 2012, see Appendix C for the measure). I modified a number of the questions for the current study with up-to-date terminology and definitions. The original and revised measure both have a Cronbach's alpha of .96. The attitudes scale consists of 21 items. The inventory uses a 5-point Likert scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*), with 11 of the items being reverse coded. Items presented to the participants range from "transgender individuals endanger the institution of the family" to "I would feel uncomfortable if a close family member became romantically involved with a transgender individual." Participants were given a score between 21 and 105, with higher scores on the measure indicating a more positive attitude towards transgender individuals.

News Media Usage. The 12 news sources that were used by at least 25% of the Pew Research sample were selected to be used in the current study. Participants selected which of the 12 news sources selected from the Pew Research data they use in a typical week (Mitchell et al., 2014, see Appendix D for measure) and if the sources are accessed via the TV, internet, newspaper, and/or the radio. Method of accessing sources has been included as an exploratory measure. Each source has been placed on a 5-point scale (1 = *Consistently Liberal*, 3 = *Inconsistent*, 5 = *Consistently Conservative*) by Pew Research Center based on the ideological consistently of its users. The scores of the selected news sources were

averaged to give the participants a final score ranging from 1 to 5, with higher scores indicating more conservative beliefs.

Ideological Consistency Scale. Participants completed the Ideological Consistency Scale (Mitchell et al., 2014). The measure consists of 10 items, with each item having a choice that aligns with either a conservative or liberal viewpoint (e.g., "Government is almost always wasteful and inefficient" or "Government often does a better job than people give it credit for"). When participants select the liberal choice, they receive -1 point. When a conservative choice is selected, the participant is given 1 point. Participants were given a score from -10 to 10, with higher scores indicating greater conservatism. The measure has a moderate Cronbach's Alpha of .62. See Appendix E for the Ideological Consistency Scale.

Personal Contact Measure. Participants were asked if they personally know anyone who is transgender, how well they know each other, and if the relationship with the individual is positive or negative. Participants rated how well they know the individual on a 5-point Likert scale (1 = *Acquaintances*, 3 = *Good Friends*, 5 = *Very Close*). Participants were also asked if they know anyone who is lesbian, gay, bisexual or pansexual and rated how well they know the individual on the same 5-point Likert scale. See Appendix F for the Personal Contact measure.

Socioeconomic Status (SES). Participants were given the Subjective SES Scale as an exploratory measure (Adler, Epel, Castellazzo, & Ickovics, 2000, see Appendix G for the measure). Participants placed themselves on a 10-point ladder based on education and economic factors in comparison to others in their community and the United States. The top rung of the ladder represents those who are the most successful, educated and wealthy and the bottom rung represents those who are the least successful and educated, and have little

money. This measure has been found to correlate with objective SES measures, such as income and level of education. The community measure has a moderate reliability of .58 and the United States SES measure has a reliability of .62 (Giatti, Camelo, Rodrigues, & Barreto, 2012).

Religiosity. Religiosity was also measured as an exploratory variable. Participants were first asked if they consider themselves to be religious. If they answered yes, they were given the option to fill in what religion they identify with. Participants also completed the Measure of Religiosity questionnaire (Friese & Wänke, 2014, see Appendix H for the measure). The measure consists of three items that are rated on a 6-point Likert scale. The items include "how strongly do you believe in God," "how religious are you," and "how often do you pray?" Higher scores on the measure indicate a higher level of religiosity, with scores ranging from 0 to 18. This measure was found to have an alpha of .92 in this study.

Procedure

Participant selection for this online survey occurred through the SONA system for undergraduate psychology students. Participants were presented with an informed consent. Then they completed the demographic information, including gender, age, race, year in school, SES, sexual orientation, religiosity, and political beliefs. Then participants completed the measures of perceived transgender news exposure and the Attitudes towards Transgender Individuals Scale. Lastly, participants completed the personal contact measure. The one time survey took approximately 15 minutes to complete.

Results

Descriptive Statistics and Relationships among Variables

Means and ranges were calculated for the variables of religiosity, political ideology, perceived news exposure, attitudes towards transgender individuals, personal contact, SES, and news usage (see Table 2 for means, standard deviations, and ranges). Scores on the measure of religiosity showed that overall, participants were moderately religious. Twenty-three percent of participants scored a zero on the measure, indicating that they are not religious. The mean political ideology score indicated that the overall sample was moderately liberal, with most participants using news sources that were rated as being liberal by Pew Research Center (Mitchell et al., 2014). Additionally, participants reported being exposed to slightly more transgender affirming news than non-affirming news. The scores on the attitudes towards transgender individuals measure were skewed in a positive direction, with 92.8% of participants scoring above the attitudes scale's median of 63 and 10.80% scoring the maximum of the scale (see Figure 2 for distribution). Fifty percent of participants reported knowing someone who identifies as transgender.

To examine which variables were associated with attitudes towards transgender individuals, I conducted a regression analysis predicting participants' attitudes from their gender (1 = male, 2 = female), personal contact (0 = no contact, 1 = contact), SES, religiosity, political ideology, news exposure, and news media usage (see Table 3 for the means, SDs, and bivariate correlations between variables). This regression analysis (see Table 4 for regression table) found that women had more positive attitudes towards transgender individuals than men, $\beta = .12$, $t = 2.30$, $p = .022$. Non-religious individuals had more positive attitudes than religious individuals, $\beta = -.34$, $t = -6.74$, $p < .001$. Politically

liberal individuals tended to have more positive attitudes than politically conservative individuals, $\beta = -.51$, $t = -9.71$, $p < .001$. Using liberal-rated news sources did not significantly differ from using conservative-rated news sources in predicting attitudes towards transgender individuals, $\beta = .07$, $t = 1.32$, $p = .19$. Additionally, exposure to transgender affirming or transgender-affirming news did not predict attitudes, $\beta = -.05$, $t = -1.08$, $p = .28$. Knowing someone who is transgender related to having more positive attitudes towards transgender individuals, $\beta = .14$, $t = 2.97$, $p = .003$. SES was not a significant predictor of attitudes towards transgender individuals, $\beta = .01$, $t = 0.26$, $p = .80$. To summarize the analyses above, the results are largely consistent with previous research in that being politically liberal, non-religious, knowing someone who is transgender, and being a women relates to having positive attitudes towards transgender individuals.

Primary Analysis

My first hypotheses was that greater exposure to affirming news stories would be correlated with more positive attitudes towards transgender individuals. My second hypothesis was that this effect would be moderated by personal contact such that the relationship between news exposure and attitudes would be stronger for people who have not had contact with transgender individuals. To test these hypotheses, I used PROCESS to conduct a regression analysis predicting people's attitudes towards transgender individuals from their news exposure scores, whether they reported having contact with a transgender individual, and the interaction between these two predictors. This analysis found that perceived news exposure was not related to attitudes towards transgender individuals. This does not support my first hypothesis. Having personal contact was related to attitudes such that people who reported having contact with a transgender individuals reported had more

positive attitudes than those who did not have contact with a transgender individual. However, the interaction terms were not significant, indicating that the relationship between perceived news exposure and attitudes did not vary as a function of whether people had contact with a transgender individual. This does not support my second hypothesis.

Because there was no relationship between exposure and attitudes, I did not test the mediation analysis proposed in hypothesis 3.

Exploratory Analyses

Due to the research mentioned earlier on gender differences in attitudes towards transgender individuals, I conducted an independent-samples t-test to determine if there was a significant difference in the attitudes towards transgender individuals of men ($M = 79.92$, $SD = 14.30$) and women ($M = 86.64$, $SD = 14.75$), $t(246) = -2.85$, $p = .005$, $d = 0.46$. Next, I examined if the relationships between variables differed for the two genders. Specifically, I conducted correlations between religiosity, political ideology, perceived news exposure, attitudes towards transgender individuals, and personal contact. For females, the variables of religiosity ($M = 10.53$, $SD = 5.52$), political ideology ($M = -4.88$, $SD = 3.78$), and personal contact were significantly correlated with attitudes towards transgender individuals (see Table 5 for the means, SDs, and bivariate correlations between variables). Similar to the overall sample, hypothesis 1 was not supported for females and perceived news exposure ($M = 0.42$, $SD = 3.52$) was not correlated with attitudes towards transgender individuals ($M = 86.64$, $SD = 14.75$), $r(198) = -0.01$, $p = .85$. However for males there was a significant relationship between perceived news exposure ($M = 0.47$, $SD = 2.81$) and attitudes towards transgender individuals ($M = 79.92$, $SD = 14.30$), $r(46) = 0.35$, $p = .017$. Religiosity ($M = 7.63$, $SD = 5.55$) and political ideology ($M = -3.27$, $SD = 5.05$) were also significantly

correlated with attitudes towards transgender individuals (see Table 3) among males. For

males, having personal contact with a transgender person was not associated with attitudes.

Discussion

The aim of the current study was to investigate the relationship between participants' perceived exposure to news about transgender people and their attitudes towards transgender individuals. It was predicted that memory of news exposure would correlate with attitudes towards transgender individuals, with positive scores on news exposure (i.e., exposure to transgender affirming news) correlating with more positive attitudes and negative scores (i.e., exposure to transgender non-affirming news) correlating with more negative attitudes. It was hypothesized that having personal contact with a transgender person would moderate this relationship. Lastly, it was predicted that the political ratings of news sources used and perceived news exposure would mediate the relationship between participants' political leaning and attitudes towards transgender individuals. The results showed that perceived news exposure was not significantly related to attitudes towards transgender individuals across the entire sample. Therefore, the hypotheses were not supported. However, exploratory analyses indicated that for males, perceived news exposure was significantly positively correlated with attitudes.

The results of this study suggest that the relationship between perceived news exposure and attitudes towards transgender individuals may differ depending on gender. Overall, men did not have strong negative attitudes towards transgender people. Their attitudes were only slightly less positive than those of women, with men's attitudes hovering slightly closer to neutral, but this difference was significant. The current study replicated Kanamori and Cornelius-White's (2016) finding that women tend to have more positive attitudes towards transgender individuals than men. The positive attitudes of women may be because women tend to possess more communal traits (e.g. caring, understanding,

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sympathetic) than men (Abele, 2013). Having more communal traits may cause women to be more sympathetic towards transgender individuals.

The finding that only for men is perceived news exposure and attitudes towards transgender individuals positively and significantly correlated may be due to a person with more neutral attitudes being more likely to be swayed than a person with very strong attitudes. Research has found that strong attitudes are more resistant to change (Robison, Leeper, & Druckman, 2016). Therefore, the gender differences in the findings may not be due to gender, per se, but instead due to the strength of pre-existing attitudes. Additionally, there is evidence that when someone with strong attitudes is exposed to news that opposes their own beliefs, they become more firm in their beliefs (Bail et al., 2018). When Bail et al. had participants follow Twitter bots that posted in support of the opposing political party, participants reported stronger support for their own party. These effects were strongest for conservative individuals.

The findings reported by Bail et al. (2018) may generalize to a variety of issues. If so, when people with strong pre-existing positive attitudes towards transgender individuals read a non-affirming or affirming article, they lean into their current beliefs further. Therefore, the directionality of the relationship may be more complicated than was predicted. News exposure may influence people's attitudes, but people's existing attitudes may also be influencing how they process the news. As a preliminary test of this idea, I conducted a follow-up analysis by dropping participants with strong, positive attitudes towards transgender individuals. When participants with strong positive attitudes were dropped from the analysis, perceived news exposure was still not significantly correlated to attitudes. Therefore, strong attitudes being resistant to change may not fully explain the findings from

the present study. Future research should use a more representative sample when investigating if the current findings were due to the strength of people's pre-existing attitudes or if there are actual gender differences in the relationship between news exposure and attitudes towards transgender individuals.

The current study was exploratory in nature due to the lack of previous research in this area. Therefore, it was decided to use a correlational design for this study. Using a non-experimental, correlational design limits the conclusions that can be drawn from the findings of the present study. Without additional research, it will be unclear why the relationship between news exposure and attitudes towards transgender individuals was only found for males. Future researchers should use an experimental design to test if news exposure impacts attitudes towards transgender individuals while being mindful of possible undesirable outcomes, such as producing lasting negative attitudes towards transgender people. Future studies should explore if exposure to positive, affirming news stories buffers the effect of previously being exposed to negative news about the transgender population. There is evidence that exposure to positive news affects people's behavior. Yao and Yu (2016) found that when participants were exposed to positive social news, they were more cooperative when completing a prisoner's dilemma game. On the other hand, exposure to negative social news increased participants' cheating behaviors. Future research should investigate if similar effects are found when looking at attitudes towards transgender people.

Unlike prior studies that only examined how a variety of factors (e.g., religiosity, political ideology, and personal contact) related to attitudes towards lesbian and gay individuals, this study expanded the literature by looking at these factors as they related to attitudes towards transgender individuals specifically. Prior studies found that religious

individuals tend to have more negative attitudes towards lesbian and gay individuals than non-religious individuals (Brown & Henriquez, 2008; Smith, 1993). Similarly, the present study found that individuals with stronger religious beliefs had more negative attitudes towards transgender individuals compared to less religious or non-religious individuals. Religious participants reported their religion as Christianity, Catholicism, or Judaism. Those from these religions may have more negative attitudes towards transgender individuals due teachings from The Old Testament, which is often interpreted as being condemnatory of homosexuality and in support of more "traditional" family values (Worthen, Lingiardi, & Caristo, 2017).

Similar to the findings of Brown and Henriquez (2008) on lesbian and gay individuals, it was found that being politically liberal was associated with having more positive attitudes towards transgender individuals than being politically conservative. LGBT rights are currently a dividing factor between the conservative and liberal political parties in the United States, with the conservative party generally being less supportive of the LGBT community than the liberal party (Worthen et al., 2017). Worthen and colleagues hypothesized that the difference in attitudes towards LGBT individuals may be due to the politicians of each party openly taking a stance either for or against LGBT issues. In the current study, religiosity and political ideology were independently related to attitudes towards transgender individuals for both male and female participants.

Previous research found that people who know a lesbian or gay individual tend to have more positive attitudes towards lesbian and gay individuals (Hou et al., 2006; Brown & Henriquez, 2008). In the present study, 50% of participants reported knowing someone who is transgender and this was correlated with attitudes towards transgender individuals. It was

found that participants who reported knowing someone who is transgender had more positive attitudes towards transgender people. However, when the correlation between personal contact and attitudes was analyzed by gender, the relationship was found only for women, despite men and women reporting similar rates of knowing a transgender person. Additionally, men and women reported similar scores on the closeness of the relationship with a transgender individual. This gender difference may be explained by theories concerning agentic-masculine traits and communal-feminine traits (Abele, 2003). Communal traits are associated with caring, such as being understanding and sympathetic, while agentic traits are related to determination and being competitive; women tend to have more communal traits and men tend to have agentic traits. The determination associated with agentic traits may cause individuals to be more likely to seek out information in the news, which may explain why the relationship between news exposure and attitudes was found only for men. However, further research is needed to test this. The relationship between personal contact with a transgender person and attitudes that was found in women in the present study may exist because women possess more communal traits and are conditioned to be friendlier and place more emphasis on their social relationships than men.

The conclusions that can be drawn from the findings are also limited due to the lack of variability in the sample. Overall, participants reported very positive attitudes towards transgender individuals. Eighty percent of the sample was women and the majority was white. Only 18 participants reported attitudes that were slightly negative, with no participants reporting strongly negative attitudes towards transgender individuals. This may be due to a variety of reasons, such as response bias or the majority of the sample being women enrolled in a university. It has been found that education relates to attitudes towards lesbian and gay

individuals. Those with more education have more positive attitudes towards lesbian and gay people (Smith, 1993). Due to the entire sample being undergraduate university students enrolled in classes in the psychology department, the relationship between education and attitudes towards transgender individuals was not analyzed. Using this convenience sample may have restricted the variability of participants' attitudes towards transgender individuals. The overall positive attitudes found in the current study may be due to participants all being in higher education.

Some participants may have reported positive attitudes due to a social desirability bias effect. Levitan and Verhulst (2016) examined how people express attitude change in order to conform to a group. When participants were placed in a group that held beliefs different than their own, they were more likely to report sharing the same beliefs as the group in order to conform. Interestingly, expressing a change in attitudes did not only occur while they were with the group. A week later when the participants were surveyed privately, participants still reported the changed, group conforming attitude. So, it may be that participants in the current study felt pressure to report socially acceptable, positive attitudes even though they took the survey in a private location.

Conclusion

There is evidence that the news to which people are exposed relates to attitudes towards minorities and immigration (Ahmed, 2012; Schemer, 2012). The aim of the present study was to determine whether this relationship also exists for attitudes towards transgender individuals. Contrary to what was predicted, this study did not find a significant relationship between perceived news exposure and attitudes towards transgender individuals in the overall sample. However, perceived news exposure was found to be positively correlated

with attitudes towards transgender individuals for men. Future research should investigate the reasons for this finding using a more representative sample. Past studies have focused on what factors are related to attitudes towards lesbian and gay individuals (Brown & Henriquez, 2008; Hou et al., 2006; Smith, 1993). This study extended the current literature about the transgender population by researching how a variety of variables (gender, religiosity, political ideology, and personal contact with a transgender individual) related to attitudes towards transgender individuals. This study found that women, people who were less religious, more politically liberal, and had contact with transgender individuals tended to have more positive attitudes towards transgender individuals. Transgender individuals are at risk of experiencing discrimination, developing a substance abuse disorder or depression, and they are 22 times more likely to die by suicide than cisgender individuals (Adams, Hitomi, & Moody, 2017; Haas, Rodgers, & Herman, 2014; Shulman et al., 2017). Therefore, it is imperative that future research continues examining which factors may be causing negative attitudes towards the transgender community.

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Appendix A

Demographic Information

1. Age ___

2. Race?
   African-American
   Asian/Pacific Islander
   Caucasian
   Hispanic or Latino
   Native American
   Other _____

3. Gender?
   Cisgender Male
   Cisgender Female
   Transgender Male
   Transgender Female
   Gender non-conforming
   Other _____

4. What is your sexual orientation?
   Straight
   Gay/Lesbian
   Bisexual
   Pansexual
   Asexual

5. What is your year in school?
   First year
   Second year
   Third year
   Fourth year
   Fifth year or more

Appendix B

Transgender News Exposure Survey

Topics of popular news stories concerning the transgender population are listed below. Please check each of the topics that you recall seeing articles about and if the articles were overall framed as being in support of transgender individuals (transgender affirming) and/or not in support of transgender individuals (transgender non-affirming).

HB2 (Bathroom Bill) being passed

HB2 (Bathroom Bill) being repealed

Caitlyn Jenner announces new name

Transgender children being allowed in the Boy Scouts

Transgender military ban

Transgender individuals being assaulted/murdered

Transgender students' rights (bathroom accessibility/sports teams)

Transgender politicians

Cisgender actors/actresses playing transgender roles

Redefining gender to eliminate transgender

Think about the knowledge that you have about the transgender population. What sources have taught you what you know about transgender individuals? Rank each source from 1 – 4 from most often used to least often used.

Family/friends ____
TV show/movies ____
The news ____
Empirical research (journal articles, textbooks) ____

Appendix C

Attitudes Towards Transgender Individuals Scale (Revised)

Transgender refers to individuals whose gender identity and/or gender expression differs from what is typically associated with the sex they were assigned at birth. People under the transgender umbrella may describe themselves using one or more of a wide variety of terms - including transgender. Many transgender people are prescribed hormones by their doctors to bring their bodies into alignment with their gender identity. Some undergo surgery as well. But not all transgender people can or will take those steps, and a transgender identity is not dependent upon physical appearance or medical procedures (GLAAD)

This questionnaire is designed to measure the way you feel about working or associating with transgender individuals. It is not a test, so there are no right or wrong answers. Answer each item as carefully and accurately as you can.

Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	2	3	4	5

1. It would be beneficial to society to recognize transgender individuals as normal.

2. Transgender individuals should not be allowed to work with children.

3. Transgender individuals are immoral.

4. All transgender bars should be closed down.

5. Transgender individuals are a viable part of our society.

6. Being transgender is a sin.

7. Transgender individuals endanger the institution of the family.

8. Transgender individuals should be accepted completely into our society.

9. Transgender individuals should be barred from the teaching profession.

10. There should be no restrictions on being transgender.

11. I avoid transgender individuals whenever possible.

12. I would feel comfortable working closely with a transgender individual.

13. I would enjoy attending social functions at which transgender individuals were present.

14. I would feel comfortable if I learned that my neighbor was a transgender individual.

15. Transgender individuals should not be allowed to dress differently than the sex that was assigned at birth in public.

16. I would like to have friends who are transgender individuals.

17. I would feel comfortable if I learned that my best friend was a transgender individual.

18. I would feel uncomfortable if a close family member became romantically involved with a transgender individual.

19. Transgender individuals are really just closeted gay men and lesbian women.

20. Romantic partners of transgender individuals should seek psychological treatment.

21. Transgender individuals should be allowed to use the restroom that aligns with their gender identity rather than the sex that was assigned at birth.

Appendix D

News Media Usage

Popular news sources are listed below. Select all the sources that you receive your news from in a typical week and enter the corresponding number for how you access the source most often.

News Sources	Pew Ideological Score*	TV = 1 Internet = 2 Paper = 3 Radio = 4
ABC News	2.65	
CBS News	2.57	
NBC News	2.50	
NPR	1.95	
Google News	2.72	
The Blaze	4.32	
BBC	2.14	
Fox News	3.61	
MSNBC	2.29	
CNN	2.45	
PBS	2.07	
Yahoo News	2.84	

*These are the scores assigned by Pew Research Center for the 12 most used sources.

Appendix E

Ideological Consistency Scale

Directions: Select the choice that aligns most with your beliefs.

1. Government is almost always wasteful and inefficient
   Government often does a better job than people give it credit for

2. Government regulation of business usually does more harm than good
   Government regulation of business is necessary to protect the public interest

3. Poor people today have it easy because they can get government benefits without doing anything in return
   Poor people have hard lives because government benefits don't go far enough to help them live decently

4. The government today can't afford to do much more to help the needy
   The government should do more to help needy Americans, even if it means going deeper into debt

5. Blacks who can't get ahead in this country are mostly responsible for their own condition
   Racial discrimination is the main reason why many black people can't get ahead these days

6. Immigrants today are a burden on our country because they take our jobs, housing, and health care
   Immigrants today strengthen our country because of their hard work and talents

7. The best way to ensure peace is through military strength
   Good diplomacy is the best way to ensure peace

8. Most corporations make a fair and reasonable amount of profit
   Business corporations make too much profit

9. Stricter environmental laws and regulations cost too many jobs and hurt the economy
   Stricter environmental laws and regulations are worth the cost

10. Homosexuality should be discouraged by society
    Homosexuality should be accepted by society

Appendix F

Personal Contact with LGBT Individuals Survey

1. Do you personally know someone who is transgender?
    1. Yes
    2. No

2. How well do you know that individual? If you know more than one transgender individual, think of the one who you know the best. You are:

Acquaintances		Good Friends		Very close
1	2	3	4	5

3. Do you personally know someone who is lesbian, gay, bisexual or pansexual?
    1. Yes
    2. No

4. How well do you know that individual? If you know more than one LGBP individual, think of the one who you know the best. You are:

Acquaintances		Good Friends		Very close
1	2	3	4	5

*Pansexual - the sexual, romantic or emotional attraction towards people regardless of their sex or gender identity

Appendix G

Socioeconomic Status Survey

MacArthur Scale of Socioeconomic Status

Community SSS

Think of this ladder as showing where people stand in their communities.
People define community in different ways. Please define it in whatever way is most meaningful to you. At the top of the ladder are the people who have the highest standing in their community. At the bottom are the people who have the lowest standing in their community.

Where would you place yourself on this ladder?
Place an "**X**" on the rung where you think you stand at this time of your life relative to other people in your community.

National SSS

Think of this ladder as representing where people stand in the United States.
At the **top** of the ladder are the people who are the best off - those who have the most money, the most education and the most respected jobs. At the **bottom** are the people who are the worst off - who have the least money, least education, and the least respected jobs or no job. The higher up you are on the ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom.

Where would you place yourself on this ladder?
Please place an "**X**" on the rung where you think you stand as this time in your life, relative to other people in the United States.

Appendix H

Measure of Religiosity

1. Do you consider yourself to be religious?

   Yes

   No

2. If yes, what religion do you identify with?

   _____

3. How strongly do you believe in God (Allah, Jahwe…)?

   0 - 'certain that God does not exist' to 6 - 'certain that God exists'

4. How religious are you?

   0 - 'not at all religious' to 6 - 'very religious'

5. How often do you pray?

   0 - 'almost never' to 6 - 'daily'

Consent to Participate in Research
Information to Consider About this Research

Study title: Is News Exposure Related to Attitudes towards Transgender Individuals?
Principal Investigator: Allison Sams, B.S.
Department: Psychology
Contact Information: samsad@appstate.edu

Faculty Advisor: Mary Ballard, PhD
Department: Psychology
Contact Information: 310-A Smith-Wright Hall; (828) 262-2272, ext. 402
ballardme@appstate.edu

You are invited to take part in a research study about the relationship between news exposure and attitudes towards transgender people. You must be 18 years or older in order to participate in this study. If you take part in this study, you will be one of about 250 people to do so. By doing this study we hope to learn how exposure to news stories about the transgender population may relate to attitudes towards transgender people.

The research procedures will be conducted online through the SONA system.

You will be asked to complete seven brief surveys to assess religiosity, political beliefs, news exposure, attitudes, personal contact with a transgender person, and demographic information.

Participation is expected to take approximately 30 minutes.

What are possible harms or discomforts that I might experience during the research?

To the best of our knowledge, there is no foreseeable risk of harm from participating in this research study. All information will remain confidential and will be assessed in aggregate; your responses will not be able to be tied back to you.

What are the possible benefits of this research?

There may be no personal benefit from your participation, but the information gained by doing this research may help others in the future by helping us to understand the relationship between the news and our attitudes.

Will I be paid for taking part in the research?

You will not be paid for your participation in this study. You can, however, earn 1 ELC credit for your participation. There are other research options and non-research options for

obtaining extra credit or ELCs. One non-research option to receive 1 ELC is to read an article and write a 1-2 page paper summarizing the article and your reaction to the article. More information about this option can be found at: psych.appstate.edu/research. You may also wish to consult your professor to see if other non-research options are available.

How will you keep my private information confidential?

This study is confidential; your name will be on the consent form, but the remainder of the information will be identified only by a number. Your data will be protected under the full extent of the law. We will keep the data for 5 years after data collection, based on the requirement of the American Psychological Association.

Who can I contact if I have questions?

The people conducting this study will be available to answer any questions concerning this research, now or in the future. You may contact the Principal Investigator, Allison Sams, at samsad@appstate.edu. If you have questions about your rights as someone taking part in research, contact the Appalachian Institutional Review Board Administrator at 828-262-2692 (days), through email at irb@appstate.edu or at Appalachian State University, Office of Research and Sponsored Programs, IRB Administrator, Boone, NC 28608.

Do I have to participate? What else should I know?

Your participation in this research is completely voluntary. If you decide to take part in the study, you still have the right to decide at any time that you no longer want to continue. You may skip questions that you do not want to answer. However, the survey must be submitted in order to receive 1 ELC credit.

Appalachian State University's Institutional Review Board has determined this study to be exempt from IRB oversight.

_____

Participant's Name (PRINT)   Signature   Date

Table 1.

Demographic Characteristics of Sample

Characteristic	N = 250	
	n	*%*
Sex		
Cisgender Male	48	19.20
Cisgender Female	200	80.00
Transgender Male	0	0.00
Transgender Female	0	0.00
Unreported	2	0.80
Race		
African-American	6	2.40
Asian/Pacific Islander	8	3.20
Caucasian	220	88.00
Hispanic or Latino	10	4.00
Native American	0	0.00
Other	6	2.40
Sexual Orientation		
Heterosexual	222	88.80
Gay or Lesbian	7	2.80
Bisexual	20	8.00
Pansexual	1	0.40
Asexual	0	0.00
Year in School		
First Year	96	38.40
Second Year	75	30.00
Third Year	48	19.20
Fourth Year	27	10.80
Fifth year or more	4	1.60

Table 2.

Means and Ranges for Predictor and Criterion Variables

Measure	Minimum	Maximum	Mean	SD
Religiosity	0	18	9.94	5.62
Political Ideology	−10	10	−4.58	4.09
Perceived News Exposure	−10	10	0.48	3.42
Attitudes towards Transgender Individuals	51	105	85.27	14.84
Personal Contact	0	1	0.50	0.50
SES	1	10	6.18	1.41
News Media Usage	1.65	3.61	2.53	0.34

Table 3.

Means, Standard Deviations, and Pearson's Correlations for Predictor and Criterion Variables

Variable	*M*	*SD*	1	2	3	4	5	6	7	8
1. Gender	19.20% Men, 80% Women		—	.20**	−.16*	−.01	.18**	.08	.10	−.04
2. Religiosity	9.94	5.62		—	.25**	−.10	−.44**	−.11	.17*	.09
3. Political Ideology	−4.58	4.09			—	−.06	−.58**	−.12	−.01	.27**
4. Perceived News Exposure	0.48	3.43				—	.03	.11	.07	.05
5. Attitudes Towards Transgender Individuals	85.27	14.84					—	.23**	−.05	−.15*
6. Personal Contact	50% Contact, 50% No Contact	—						—	−.07	−.09
7. SES	6.18	1.41							—	.04
8. News Media Usage	2.53	0.34								—

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Note. Gender is coded as male = 1, female = 2. Higher scores on religiosity indicate being more religious. Higher scores on political ideology indicate being more conservative. Higher scores on perceived news exposure indicate more exposure to transgender affirming news. Personal contact is coded as contact = 1, no contact = 0. Higher scores on SES indicates higher perceived SES. Higher scores on news media usage indicates the use of more conservative news sources.

Table 4.

Standardized Regression Coefficients Predicting Attitudes Towards Transgender Individuals

	B	SE	β
Gender	4.37	1.89	0.12*
Religiosity	−0.91	0.14	−0.34***
Political Ideology	−1.81	0.19	−0.51***
Perceived News Exposure	−0.23	0.21	−0.05
News Media Usage	2.90	2.19	0.07
Personal Contact	4.24	1.43	0.14**
SES	0.13	0.50	0.01

*p < .05, **p < .01, ***p < .001

Note. Gender is coded as male = 1, female = 2. Higher scores on religiosity indicate being more religious. Higher scores on political ideology indicate being more conservative. Higher scores on perceived news exposure indicate more exposure to transgender affirming news. Personal contact is coded as contact = 1, no contact = 0. Higher scores on SES indicates higher perceived SES. Higher scores on news media usage indicates the use of more conservative news sources.

Table 5.

Means, Standard Deviations, and Pearson Correlations by Gender

|	Males		Females								
Variable	*M*	*SD*	*M*	*SD*	1	2	3	4	5	6	7
1. Religiosity	7.63	5.55	10.53	5.52	—	.28	−.28	−.33*	.14	.26	.13
2. Political Ideology	−3.27	5.05	−4.88	3.78	.30**	—	−.11	−.50**	−.06	.05	.28
3. Perceived News Exposure	0.47	2.81	0.42	3.52	−.06	−.03	—	.35*	−.01	.11	.13
4. Attitudes Towards Transgender Individuals	79.92	14.30	86.64	14.75	−.54**	−.60**	−.01	—	.002	−.01	−.07
5. Personal Contact	41.70	—	51.50	—	−.18**	−.12	.11	.28**	—	.002	.08
6. SES	5.90	1.56	6.25	1.37	.12	−.003	.06	−.09	−.10	—	.15
7. News Media Usage	2.55	0.38	2.52	0.32	.10	.30**	−.02	−.15*	−.15*	.001	—

Note. Correlations for males are shown above the diagonal and correlations for females are shown below the diagonal. *N* = 48 males, 199 females. Mean personal contact is displayed as the percentage of males and females who know someone who is transgender.

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).
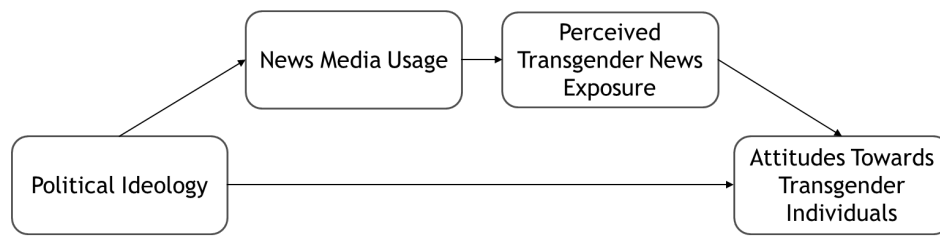
Figure 1. Hypothesis 3 mediation model.
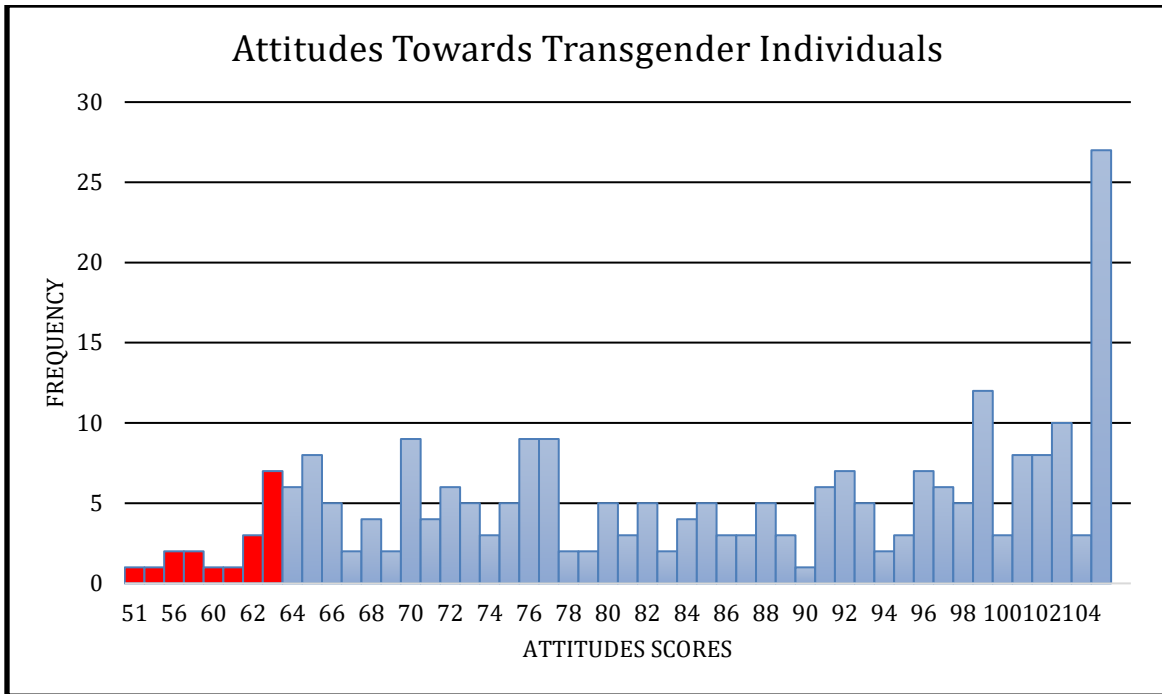
Figure 2. Distribution of attitudes towards transgender individuals. Scores below 63 indicate negative attitudes and scores above 63 indicate positive attitudes.

Vita

Allison D. Sams was born in Hickory, North Carolina, to Ron and Melissa Sams. She graduated from East Gaston High School in June 2013. She then attended Gaston Community College and the University of North Carolina at Charlotte to study Psychology and minor in Anthropology. During these years, she had the opportunity to work in a variety of research labs and intern at a psychosocial rehabilitation center. She was awarded a Bachelor of Science degree in May 2017. In the fall of 2017, she accepted a research assistantship in Experimental Psychology at Appalachian State University and began study toward a Master of Arts degree. The M.A. was awarded in May 2019. In August 2019, Allison commenced work toward her Master of Arts and Specialist in School Psychology at Appalachian State University. She currently resides in Boone, North Carolina.