



Citation: E.P. Lorenz, C.M. Frisby (2022) Disability on drama TV: How attitudes about disability in the US relate to viewing frequency and identification with a character with a disability on "Glee". *Media Education* 13(1): 81-91. doi: 10.36253/me-12641

Received: January, 2022

Accepted: May, 2022

Published: June, 2022

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Data Availability Statement: All relevant data are within the paper and its Supporting Information files.

Competing Interests: The Author(s) declare(s) no conflict of interest.

Disability on drama TV: How attitudes about disability in the US relate to viewing frequency and identification with a character with a disability on "Glee"

La disabilità nella fiction televisiva: il rapporto tra atteggiamenti, frequenza d'uso e identificazione nella serie televisiva "Glee"

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Abstract. Although the relationship between attitudes about minorities and television portrayals has been a long-studied topic, individuals with disability have often been left out. This study demonstrates how exposure to disability portrayal on television relates to attitudes about individuals with disability. An online survey examined respondents' viewing habits of the television program "Glee," which had a main character, Artie, who used a wheelchair, and how viewing this representation related to attitudes about individuals with disability. The results showed that identification with Artie is correlated with frequency of viewing and to more positive attitudes about individuals with disability. In addition, any viewing of "Glee," rather than frequency, was related to more positive attitudes about individuals with disability. While findings were explained through social cognitive theory and identification, results did not line up with cultivation theory. The findings demonstrate that viewing a TV show with a character with a disability relates to more positive attitudes about individuals with disability and hopes to encourage more inclusion in the media landscape.

Keywords: disability, media effects, identification, media inclusion, social cognitive.

Riassunto. Sebbene la relazione tra gli atteggiamenti nei confronti delle minoranze e le rappresentazioni televisive sia stata a lungo studiata, gli individui con disabilità sono stati spesso lasciati fuori. Questo studio dimostra come l'esposizione alla rappresentazione della disabilità in televisione sia correlata agli atteggiamenti nei confronti delle persone con disabilità. Un sondaggio online ha esaminato le abitudini di visione degli intervistati del programma televisivo "Glee", che aveva un personaggio principale, Artie, che utilizzava una sedia a rotelle, e il modo in cui la visione di questa rappresentazione era correlata agli atteggiamenti nei confronti delle persone con disabilità. I risultati hanno mostrato che l'identificazione con Artie è correlata alla frequenza di visione e ad atteggiamenti più positivi nei confronti delle persone con disabilità. I

risultati siano stati spiegati attraverso la teoria cognitiva sociale e l'identificazione, mentre non trovano riscontro nella teoria della coltivazione. I risultati dimostrano che la visione di uno show televisivo con un personaggio disabile è correlata ad atteggiamenti più positivi nei confronti delle persone con disabilità ed incoraggiano, quindi, una maggiore inclusione nel panorama mediatico.

Parole chiave: disabilità, effetti dei media, identificazione, inclusione, cognizione sociale.

1. INTRODUCTION

According to the World Health Organization (2020), over one billion people, about 15% of the world's population, have a disability. Individuals with disability are not a homogenous group, with disabilities ranging from mental to physical and severe to moderate; nevertheless, they share one thing in common: underrepresentation in the media. According to GLAAD, only 3.5% of characters on scripted series have a disability (Appelbaum, 2021).

Relative lack of representation of disability in the media has coincided with little research about how existing portrayals, or lack thereof for that matter, relate to attitudes about disability. Generations of researchers have explored how television effects the way that we look at the world, and the people who surround us, but there is a gap when it comes to disability. It is important to look at this to understand how attitudes about people with disabilities can relate to how they are portrayed in the media.

«Disability Representation in Film, TV, and Print Media" discusses the importance of representations of disability. "If marginalized groups are not sufficiently represented, they remain invisible to the masses. If they are not accurately and genuinely represented, the masses will continue to misunderstand them» said Jeffress (2021, p. 4). In a study published in that book, Zhang and Haller (2021) had participants watch a scene from "Speechless" that showed JJ, a character who is nonverbal and uses a wheelchair, standing up for his younger brother. The more likely that participants perceived the portrayal as positive, the more likely they were to identify with JJ, and this led to more positive attitudes about people with disability and willingness to interact with them.

Previous research has also studied media effects related to disability, but studies have primarily focused on short-term viewing. Farnell and Smith (1999) found a relationship between viewing of media content related to disability and attitudes about disability, especially when first-hand experience was lacking. Research has demonstrated a relationship between viewing a film with a paraplegic character and increased ratings about employment eligibility (Reinhardt et al., 2014) as well as more positive attitudes about individuals with intellectual disability after watching Paralympic coverage (Ferrara et

al., 2015). No known studies look at long-term viewing of content with a consistent portrayal of disability and its relationship to attitudes.

However, other research has explored the impact of long-term viewing on various other groups including ethnic minorities and the LGBTQ community and found that media exposure can relate to beliefs (Fujioka, 1999; Dong & Murrillo, 2005; Schiappa et al., 2006; Punyanunt-Carter, 2008).

To consider if repeated viewing of a character with a disability relates to attitudes about disability, this research looked at the viewing of one show, "Glee," a program that included a main character who used a wheelchair as well as many other characters who had physical as well as mental disabilities. The current study explores frequency of viewing through cultivation theory and identification to consider the relationship to viewers' attitudes about individuals with disability.

1.1 Historical Background of Disability in the Media

While representation in the media is still much lower than actual numbers of individuals with disabilities, progress has been made in the past century.

Along with dramatic changes in awareness and rights of individuals with disabilities, there have also been varying portrayals of disability in the media. Beth Haller (2009) discusses the various models used to frame disability content. The traditional models include the medical model, in which disability is presented as an illness in need of cure; the social pathology model, in which people with disabilities are in need of charity from society; and the supercrip model, in which individuals with disabilities are portrayed as superhuman (p. 7).

Over the years the media has evolved in its portrayal of disability. Harris (2013) discusses four stages of the portrayal of minorities on television. The first was non-recognition, when the «minority group is simply excluded» (Harris, 2013, p. 93). A prominent example is U.S. President Franklin Roosevelt hiding his use of a wheel-chair. The next stage was ridicule, when «the dominant group bolsters its own self-image by putting down and stereotyping the minority» (Harris, 2013, p. 93). Char-

acters with physical disabilities have often been used to portray evil and/or genius characters. Some examples include "Doctor Who" and "Doctor Strangelove." In the regulation state, «minority groups appear as protectors of the existing order» (Harris, 2013, p. 93). Harris categorizes the final stage as respect, when «minority group appears in the same full range of roles» (Harris, 2013, p. 93). Recent media representation including the documentary "Crip Camp" and movie "CODA" as well as television programs including "Glee," "Speechless," "In The Dark," and others have characters with disability. Although GLAAD estimates the percentage of characters with disability in the media is still low at around 3.5% of characters, is has increased from the less than 1% representation Harris noted in 2013.

1.2. Portrayal of Disability on "Glee"

As this research specifically looks at one television program, it is vital to reflect on why "Glee" was an ideal selection as well as look at its portrayal of disability. "Glee" aired from 2009 until 2015 and chronicled the lives of high school students in the glee club at McKinley High in Ohio. Members of the club included students from many minority groups and stereotypical social groups (examples include cheerleaders, "jocks"). Artie Abrams was one of the original members of the glee club, appearing in all 121 episodes. He used a wheelchair in all episodes. In addition, the program portrayed a regular character with Down syndrome as well as other characters with disabilities.

During its time on air, "Glee" was known for tackling social issues. "New Directions for Social Change" (Johnson & Faill, 2015) examines the show's social commentary, in areas including teen pregnancy, bullying, gay and lesbian characters, disability and school violence. Editor Daniel Faill explains, "Glee' has brought a new tone of inclusion into modern television and direct parallels can be seen between the experiences of the McKinley High show choir members and what is happening in contemporary society" (p. xi).

Not only did "Glee" have a consistent representation of disability, but it also had a large audience. During its first season in 2009-2010, "Glee" averaged 4.9 million viewers in the 18-49 demographic with 11 million total viewers, making it one of the highest ranked shows on television in the U.S. It averaged 10.9 million and 9 million total viewers for seasons two and three respectively (Goldberg, 2014).

Artie was often portrayed in a positive light as he has everyday teen struggles and relationships not related to his disability. However, the show also often employed

some negative stereotypes like being used as an avenue for other's emotional growth; one example of this was when all members of the glee club used wheelchairs for a week to understand what life was like for Artie.

Overall, researchers have found many positives in "Glee," although not exclusively. A content analysis of the first three seasons of "Glee" discussed the different types of disability portrayed, the storylines that focused on disability as well as relationships among characters (Levins, 2013). Levins concluded that "Overall, 'Glee' is a show that tries to highlight disabilities and the struggles involved with having a disability... However, there are some mixed messages within the show» (p. 78).

In addition, "'Glee' and New Directions for Social Change" (Johnson & Faill, 2015) also discussed disability portrayal. Hasson's chapter titled "Handi-Capable'?: An Analysis of how Disability is Represented on 'Glee." She coded and analyzed themes in the show as related to disability including physical, emotional, and academic. Hasson found representations consistent with both the medical model and social model of disability, and that the recurrent content about disability included type of disability, bullying issues, education, inclusion, and administrative involvement (p. 152).

Because of its large viewership and prominent portrayal of disability, "Glee" was a natural fit to understand how its portrayal related to attitudes. Ultimately, though, this study is not looking to make a definitive statement about whether the portrayal was inherently positive or negative but rather look at how viewers perceived the portrayal and how that relates to attitudes about individuals with disability.

2. PREVIOUS STUDIES DIRECTLY RELATED TO DISABILITY

Other researchers have found relationships between viewing of media content related to disability and attitudes about disability. When people were exposed to some positive images of individuals with disabilities on television and in movies, they were more likely to have positive perceptions of those with disabilities as well as increased perceptions of discrimination (Farnall & Smith, 1999). This research was a secondary analysis of data from a survey conducted by the National Organization on Disability. It looked at viewing of specific television programs and movies and their relationship to perceptions of individuals with disabilities.

In addition, the use of humor can correlate with more positive attitudes about individuals with disabilities (Smedema et al., 2012). This finding comes from short-term viewing; researchers conducted an experiment, having participants watch short films about individuals with disability either humorous in tone or not.

Viewing of content from the Paralympics was also shown to have a relationship with attitudes and behavior intentions (Bartsch et al., 2018). This study looked at short-term viewing in an experiment that demonstrated that feelings of empathy can lead to reduced stigma about individuals with disability.

Watching short videos sharing real stories from individuals with disability also has been found to change attitudes (Lu et al., 2018). Findings from the experiment showed person-centered videos resulted in various attitude changes, some more positive and others more negative.

Many other studies have looked at perceptions of disability in general, not necessarily related to mass media influence. Context matters when looking at attitudes toward individuals with disabilities, as respondents in one study had the most positive attitudes about individuals with disabilities in the workplace (Hergenrathe & Rhodes, 2007, p. 72).

2.1. Cultivation Theory and the Impact of One TV Show

While several researchers have demonstrated the impact viewing can have on beliefs and attitudes about individuals with disability, no known studies have looked at the relationship between viewing frequency and attitudes.

Applying cultivation theory can provide insight into how television influences what Americans believe about people with disability. Pioneered in 1976 by George Gerbner, cultivation theory specifically focuses on television and how the storytelling medium plays a role in our lives. Gerbner (1998) explains, «We have used the concept of 'cultivation' to describe the independent contributions television viewing makes to viewer conceptions of social reality» (p. 180). The process is a complex one, as television doesn't necessarily create or even reflect reality, according to Gerbner, but is rather «an integral aspect of a dynamic process» (p. 180). As discussed by Shanahan and Morgan (1999), cultivation theory was originally associated with studying the effects of violence on television, but over time, has been applied to a range of issues including aging, health, minorities and more. In practice, the survey has been the dominant methodology used in cultivation research.

In recent years, cultivation theory and studies of television have continued to thrive, despite a proliferation of other media. Morgan and Shanahan (2010) discuss trends in the theory, one of which is the continued use of cultivation to study perception of minorities. Another trend prominently discussed is genre specific cultivation. Examples of this are that heavy viewing of talk shows correlates with beliefs about marriage, infidelity, and homosexuality and heavy viewers of makeover shows are more likely to have negative beliefs of self-esteem.

Some research has even employed cultivation to look at viewing just one show to understand if heavy viewing of it related to beliefs. Quick's 2009 research considered "Grey's Anatomy" viewing and how it related to beliefs about doctors. Quick argued

Gerbner's assumption about the nature of cultivation seems logical within the context of 'Grey's Anatomy.' That is, heavy viewing of this program over the course of 32 episodes would likely impact perceptions of real-world doctors among heavy viewers..." (p. 42).

Among other findings, the research found that the more people were exposed to Grey's Anatomy, the more realistic and credible they perceived the program, and credibility mediated the relationship between viewing frequency and beliefs about the courageousness of doctors.

Similarly, although not through the lens of cultivation, researchers found viewing of "Will & Grace" correlated with beliefs about gay men (Schiappa et al., 2006). Researchers found significant support for all of their hypotheses, demonstrating viewing frequency as well as parasocial interaction predicted lower levels of prejudice for gay men.

2.2. Cultivation Studies of Other Minorities and First-Hand Experience

Several studies have looked at exposure to television content about minorities and its correlation with how people perceive these groups, in particular, in cases where people do not have first-hand experience with a member of the minority.

Television messages have been shown to have a stronger impact on perceptions when firsthand information was lacking (Fujioka, 1999). Her findings showed that perceived positive portrayals related to international students' positive views of African Americans, a group with whom they had more limited first-hand experiences.

Stereotypes about groups can be broad, and research has found some are believed to be true while others not (Punyanunt-Carter, 2008). This study was grounded in cultivation theory and found viewers believed certain characteristics were true to life (perceived occupational roles and negative personality characteristics) and others not (low-achieving status and positive stereotypes).

Cultivation theory has also been used to study stereotypes about Hispanic Americans (Dong & Murrillo, 2005). This study found White Americans tended to form negative stereotypes of Hispanic Americans if television was the primary way they learned about this group.

2.3. Social Cognitive Theory and Identification

Social cognitive theory is a conceptual framework that argues that mass media plays an influential role in conveying symbolic communication (Bandura, 2001). Harris discusses the theory, developed by Albert Bandura and associates in the 1960s, emphasizing its roots in psychology with a particular focus on behavior. «The basic premise of this theory is a simple one: We learn behaviors by observing others performing those behaviors and subsequently imitating them ourselves» (Harris, 2013, p. 37-38). However, the theory has been applied over the years to study how the media influences overall attitude and thought, in addition to behavior.

Social cogitative theory argues that mass media plays an influential role in conveying symbolic communication, and one of the most relevant aspects of this theory is the idea of vicarious learning. Bandura theorizes that much of people's knowledge about values, thinking patterns and behavior comes from vicarious learning through the mass media (2001). Especially because people experience only a small part of the world's social and physical environment on a typical day, social reality is constructed in large part through vicarious experiences. Further, «what gives significance to vicarious influence is that observers can acquire lasting attitudes, emotional reactions and behavioral proclivities toward persons, places or things that have been associated with modeled emotional experiences» (p. 281).

«Identification is an imaginative process through which an audience member assumes the identity, goals, and perspective of a character» (Cohen, 2001, p. 261). Identification with the character is an essential component of social cognitive theory and vicarious learning, as discussed by researchers including Dong and Murrillo (2005). They argue that when individuals identify with characters, vicarious learning is more significant.

Identification has been used to study studied straight White individuals' perceptions and beliefs about the friendships of Black/White and gay/straight characters (Ortiz & Harwood, 2007). In particular, identification with Grace was shown to correlate with more positive attitudes about homosexuality.

Identification was also considered in an experiment on disability portrayals and resulting perceptions (Müller et al., 2012). Findings were complex, as identification could result in negative outcomes, with fear increasing after watching real-life content about individuals with disability. The study also found many attitudes were short-lived, and researchers say longer term exposure might be important.

3. METHOD

This study used a survey to examine how portrayal of individuals with disability on "Glee" is related to people's attitudes.

3.1. Hypotheses

H1: Greater perceptions that Artie and other characters on "Glee" are positive representations of disability will be associated with more positive attitudes about individuals with disability.

H2: Greater frequency of viewing "Glee" will be associated with more positive attitudes about individuals with disability.

H3: Greater frequency of viewing "Glee" will be associated with more positive attitudes about individuals with disability, made even stronger when subjects' report less first-hand experience with individuals with disability.

H4: There will be a positive relationship between frequency of viewing "Glee" and identification with Artie.

3.2. Sample

Participants were treated in accordance with the rules and policies of the University of Missouri Institutional Review Board. This research used convenience sampling. For this research, 338 participants were recruited. Recruitment began by social media snowballing on Facebook and Twitter. These methods helped recruit about half of the participants. Amazon's Mechanical Turk was also used for participant recruitment, and participants recruited through Mechanical Turk were paid for their participation. Participants accessed the online survey from their personal devices during the time period of October 26- November 10, 2015.

3.3. Procedure

In order to prevent the likelihood of an ordering effect, all participants first completed the Disabilities Social Relations Generalized Scale (Hergenrather & Rho-

des, 2007). After completing this scale, survey takers were asked whether they had seen the television program "Glee." If they answered yes, they were taken to a series of questions about perceptions of "Glee" and Artie. If they answered no, respondents were taken directly to the final section which included demographic questions.

Of the 338 survey responses, 288 participants completed any part of the Disabilities Social Relations Generalized Scale. As this scale is of central importance to the research and used in almost all statistical tests, the respondents who did not have a score on this scale were removed from the results analysis.

3.4. Measures

Viewing frequency of "Glee." Viewing frequency of the program was measured by likert 5-point scale to measure how often respondents watch "Glee" with answers including: have seen once or twice, have seen the program a few times during the past few years, have seen about half of the episodes, watched majority of episodes, have watched almost all or all episodes. In line with cultivation theory, for some hypotheses, frequency of viewing was recoded into infrequent (the first two responses) and frequent (the final three).

Personal experience with disability. Personal experience with disability was measured through a 4-item scale asking individuals about their personal level of contact, with responses options being «I have a disability», «I have a close friend or family member who has a disability», «I know a casual acquaintance who has a disability» and «I don't have personal contact with anyone who has a disability».

Perception of disability portrayal on "Glee." Perception of disability portrayal on program was measured by a scale consisting of five questions that used likert 5-point scale. This included the following questions, adapted from Schiappa, Gregg, and Hewes (2006).

«"Glee" has encouraged me to think positively about individuals with disability», «"Glee" provides a posi-

tive view of individuals with disability» and "Glee" is an important step forward in television programming because it features individuals with disabilities in major roles». This measure also includes two questions developed specifically for this research, "Do you think Artie is a positive representation of individuals who use wheelchairs?" and "Overall, do you think Artie and other characters on 'Glee' are positive representations of disability?" Cronbach's $\alpha = .866$.

Attitudes about individuals with disability. Attitudes about individuals with disability was measured by the Disabilities Social Relations Generalized Scale (Hergenrather & Rhodes, 2007). The DSRGS scale looks at attitudes about dating, marriage and work and is a good fit for this study as "Glee" focused on social relationships of its characters. Cronbach's $\alpha = .853$.

Identification with Artie. Measured by eight items on Cohen's identification scale, using a Likert 5 –point scale. This scale looking at how closely respondents' identify with a character on television. Cronbach's $\alpha = .908$.

Engagement with "Glee." Engagement was measured to help with analysis. This used two items from Cohen's identification scale that focused generally on the program "Glee," not just the specific character. It also included two additional items guided by Auter and Palmgreen's (2000) Audience-Persona Interaction Scale, used to measure parasocial interaction. Cronbach's α =.866.

3.5. Descriptive Statistics

Survey respondents included 176 females and 98 males. The largest age category of respondents was adults 26-34, who made up 41% of participants. In addition, 14.4% were between 18 and 25; 30.2% were between 35 and 54 and 8.7% were 55 and older.

The number of survey respondents who identified as having a disability was 20, 6.9% of the total. Further, 40.3% had a close friend or family member with a disability and 33% knew a casual acquaintance with a disability.

Table 1.Descriptive statistics of main variables.

	M	SD	No. of Items	α	Min.	Max
Viewing Frequency of "Glee"	2.12	1.196	1	NA	1	5
Personal Experience with Disability	2.412	.839	1	NA	1	4
Perceptions of disability portrayal on "Glee"	3.752	.703	5	.866	1	5
Identification with Artie	3.555	.651	8	.908	1	5
Engagement with "Glee"	2.981	.890	4	.866	1	5
Attitudes about individuals with disability	3.646	.551	17	.853	1	5

Variables	1	2	3	4	5	6	7
1. Attitudes about individuals with Disability	_						
2. Perception of disability portrayal on "Glee"	.290***	_					
3. Frequency of Viewing "Glee"	0.049	.373***	_				
4. Identification	.261***	.528***	.396***	_			
5.Engagement	0.108	.293***	.360***	.610***	_		
6. First-hand experience	.190***	-0.08	-0.131	-0.061	-0.056	_	
7. Have you seen "Glee"?	.135*	_	_		_	0.067	_

Table 2. Correlations among independent and dependent variables.

This left only 43 respondents, 14.9%, who did not have personal contact with any individuals with disability.

Of the 288 respondents, 168 (59.2%) had seen the television show "Glee," 48 of "Glee" viewers were male and 113 were female. The majority were not heavy watchers, 69 individuals reported as watched very infrequently and 41 individuals answered somewhat infrequent. The remaining 57 individuals watched frequently or more. Viewers of the program had an overall somewhat positive view of the show's portrayal of disability.

4. HYPOTHESES ANALYSIS

H1: Greater perceptions that Artie and other characters on "Glee" are positive representations of disability will be associated with more positive attitudes about individuals with disability.

A significant positive correlation between perception of disability portrayal on "Glee" and attitudes about individuals with disability was found, r(165)=0.290, p<0.001.

Partial correlation analysis was run, using first-hand experience and gender as control factors. The partial correlation with first-hand experience was r(156)=0.288, p<0.001. Partial correlation was also run using gender as a control variable and the correlation was r(156)=0.276, p<0.001.

H2: Greater frequency of viewing "Glee" will be associated with more positive attitudes about individuals with disability.

An independent samples t-test was run after grouping individuals into two groups, frequent viewers (answers 3-5) and infrequent viewers (answers 1-2). In line with cultivation theory and its focus on heavy viewers vs. light viewers of television, these grouping categories were created for analysis. There was not a significant difference between those who were frequent viewers (M=3.719, SD=.518) and those who were infrequent

(M=3.691, SD=.557); t(165)=.320, p=.749. This study failed to reject the null hypothesis.

There was a weak relationship found between whether respondents saw "Glee" at all and their attitudes about individuals with disability. An independent-samples t-test was conducted to determine the relationship of whether respondents viewed "Glee" and their attitudes about individuals with disability. There was a significant difference in the attitudes about individuals with disability scores for those who had seen "Glee" (M=3.7062, SD=.54547) and those who had not (M=3.5547, SD=.55614); t(282)=2.281, p = .023.

H3: Greater frequency of viewing "Glee" will be associated with more positive attitudes about individuals with disability, made even stronger when subjects' report less first-hand experience with individuals with disability.

No significant relationship was found for viewing frequency of "Glee" and attitudes about individuals of disability, when controlling for personal experience. Again, respondents were coded into two groups – heavy and light viewers – in line with cultivation theory. Data was analyzed using an ANCOVA. There was not a significant effect of viewing frequency on attitudes about individuals with disability after controlling for personal experience with disability, F(1, 158) = .453, p<.502. This study failed to reject the null hypothesis.

Although, as discussed above, a weak correlation was found between whether respondents saw "Glee" at all and their attitudes about individuals with disability; an ANCOVA showed again there is a significant effect of any viewing of "Glee" on attitudes about individuals with disability after controlling for personal experience with disability, F(1, 271) = 3.952, p<.048.

H4: There will be a positive relationship between frequency of viewing "Glee" and identification with Artie.

A significant positive correlation was found between frequency of viewing "Glee" and identification with Artie, r(158)=.396, p<.001.

^{*}p < .05. **p < .01. ***p < .001.

5. ADDITIONAL FINDINGS

Further analysis was done with the variables to consider their correlations.

A positive correlation was found between frequency of viewing "Glee" and engagement, r(160)=.360, p<.001. A positive correlation was also found between frequency of viewing "Glee" and perception of disability portrayal on "Glee," r(165)=.373, p<.001.

Further, there was a positive correlation between identification with Artie and attitudes about individuals with disability, r(158)=.261, p<.001. When controlled for experience with disability, r(155)=.281, p<.001.

6. DISCUSSION

The purpose of this research study was to explore whether exposure to portrayals of disability on the television program "Glee" related to more positive attitudes about disability. While not all hypotheses were supported, results do show that exposure to portrayal of disability correlates with more positive attitudes. Specifically, any viewing of "Glee" was related to more positive attitudes about individuals with disabilities. Further, an even stronger relationship was found between identification with Artie and attitudes about individuals with disability.

Support was found for two out of the four hypotheses put forth in this research. Overall, one of the most interesting and relevant findings was that viewing frequency alone of "Glee" was not enough to predict higher attitudes about individuals with disability, however, identification matters. It was more important whether viewers identified with the character rather than just how often they watched. When they identified with Artie, they were more likely to report more positive attitudes about individuals with disability.

Cultivation was chosen because of this study's focus on long-term viewing, while social cognitive, specifically the concept of identification, provided a lens to understand what process might help understand how media influences attitudes. Parasocial interaction could have been another theoretical framework to understand the topic. Cohen explains that identification is based on empathy and understanding, where typically parasocial relationships are more rooted in attraction and attachment (2001, p. 253). For the present study, exploring understanding of the character with a disability was deemed more appropriate than focusing more on attraction.

While social cognitive theory, in particular identification, showed strong relationships with findings,

viewing frequency alone was not enough and overall the data did not support hypotheses grounded in cultivation theory.

A brief discussion of each hypothesis and a look at limitations will follow.

H1: Greater perceptions that Artie and other characters are positive representations of disability will be associated with more positive attitudes about individuals with disability.

Support for this hypothesis is important because it shows that perceiving characters as positive perceptions of disability has a relationship with positive attitudes about individuals with disability in general. It also demonstrates a link to social cognitive theory. As Bandura theorizes, through modeled experiences, the media can create lasting attitudes and emotional reactions (2001). In this research, results show that perceiving television characters as positive representations, relates to more positive attitudes about individuals with disability in the real world.

H2: Greater frequency of viewing "Glee" will be associated with more positive attitudes about individuals with disability.

H3: Greater frequency of viewing "Glee" will be associated with more positive attitudes about individuals with disability, made even stronger when subjects' report less first-hand experience with individuals with disability.

There was not support for H2 or H3. No correlation was found for viewing frequency of "Glee" and attitudes about individuals with disability. These results did not show a link to cultivation theory, viewing frequency did not correlate with more positive attitudes at all, regardless of first-hand experience.

However, there was a weak relationship found between whether respondents saw "Glee" at all and their attitudes about individuals with disability. The weak relationship between whether respondents saw "Glee" at all and their attitudes about individuals with disability was still significant when controlled for personal experience. Certainly this could be because people seek content in line with their beliefs, and those with more positive attitudes about individuals with disability were more likely to watch a show that featured an individual with disability. That being said, Artie was just one character of many and "Glee" was never promoted as a show primarily about disability. An alternative explanation to cultivation theory could be the drench hypothesis, put forth by Greenberg (1988). Farnall and Smith discussed this in their study, explaining that «particularly strong and memorable portrayals of minority characters on television may create more lasting impressions on viewers than cumulative exposure to portrayals that are more frequent but less significant» (1999, p. 660).

H4: There will be a positive relationship between frequency of viewing "Glee" and identification with Artie.

A positive correlation was found between viewing frequency of "Glee" and identification. Further, there is a correlation between identification with Artie and attitudes about individuals with disability. In addition, when this was controlled for first-hand experience, correlation between identification with Artie and attitudes about individuals with disability was still significant.

So if identification with a character with a disability correlates with more positive attitudes about individuals with disability, what is it that causes identification? Although survey method cannot prove causation, some interesting correlations were found in this research. Although this research found frequency of viewing alone did not correlate with more positive attitudes about individuals with disability, it did correlate with identification. In addition, a significant correlation was found between identification with Artie and perception of disability portrayal on "Glee." Meaning, those who believed "Glee" showed positive portrayals of disability were more likely to identify with Artie. Engagement with "Glee" also correlated with identification. Some factors that did not correlate with identification in this research were age, gender and first-hand experience with disability.

Looking closer at the theory behind identification can help explain factors that lead to identifying with a character. Cohen explains, «Identification is hypothesized to be promoted by technical production features and audience and character attributes» (2001, p. 261). Further, identification comes from a «carefully constructed situation» (p. 251). Importantly, it does not necessarily promote imagining interaction with the character, but rather encourages the audience to put themselves in the place of the character. Cohen hypothesizes about several other factors that encourage identification, including narrative genre (drama vs. a talk show), duration of familiarity (frequency of viewing), perceived realism, viewer demographic and attitude similarity (2001). "Glee" seemed to have many factors in place which would encourage identification - a drama that tried to reflect the real-world through portrayal of diverse social groups and characters. Further, the fact here that frequency of viewing was a predictor for identification strongly relates to Cohen's theory.

Identification is also useful to help explain why more frequent viewers are more likely to identify with Artie, as well as why those who identify with Artie are likely to have more positive attitudes about individuals with disability. Cohen explains,

Identification is useful as a persuasion tactic because it can overcome the natural tendency to limit one's thoughts and feelings to a single perspective. By introducing other perspectives and persuading others to identify with them, new possibilities for understanding are opened that may result in attitude change (2001)

This study aligns with this theory and shows that identification with a character with a disability did relate to more positive attitudes about individuals with disability.

7. LIMITATIONS

Disability studies related to long-term viewing of mass media are limited, which does not leave research to reference or guide this study. Not only is study of this issue limited, but clearly the portrayal of disability is limited in the media in general.

In addition to limits with the area of study, the proposed methodology also has limits. Surveys can show correlation well, but a cause-and-effect cannot be assumed. However, correlation is still an important link to explore as future research can delve further into causation from the correlations shown in this research. In addition, the research used a convenience sample, not a probability sample due to the difficult nature to obtain this, which limits the ability to generalize results. The tendency of some people to lie, exaggerate, or answer how they feel makes them look good must also be considered when drawing conclusions.

Finally, there were some limitations with the data. Only 14.9% of survey takers did not have any personal experience with individuals with disability. Of those who watched "Glee," only 18 respondents did not have experience with individuals with disabilities. As in particular H3 focuses on this indicator, this is less than an ideal number/percentage of individuals who meet these criteria. Another concern with the data was the distribution of frequency of viewing "Glee." The majority were not heavy viewers. Ideally, more equal distribution would have been preferable, in particular to hypotheses that focused on frequency of viewing.

8. SUMMARY AND RECOMMENDATIONS

Generations of researchers have explored how the mass media affects the way that we look at the world, and the people who surround us. However, although many other minority groups have been studied in terms of how their media portrayal relates to beliefs and attitudes, there has been a lack of research about long-term viewing of characters with a disability on television and

how it relates to attitudes about individuals with disability. This presented an opportunity to explore new ground, and in this case, previous research on minority groups and how their media portrayal related to perception has offered a strong foundation to study this topic.

The fact that disability studies as related to representation on television is limited has certainly been a challenge, but it also was an exciting opportunity to make significant contributions. The findings of this research show there is a relationship, and there is a need for additional research. Specifically, similar studies looking at television viewing of programs that feature individuals with disability would be useful to see if "Glee" is an outlier or if other exposure to characters with disability relates to more positive attitudes about disability. In addition, studies specifically targeting heavy viewers of content featuring individuals with disability such as "Glee" or individuals who do not have much personal experience with disability would provide further understanding. An experimental design could also be an effective way to consider causation. A study could recruit individuals and have them watch a season of a show featuring a prominent character with a disability. The study could look at attitudes about individuals with disability to see if viewing over time related to more positive attitudes.

The current study demonstrates that identification with a character with a disability is correlated with frequency of viewing as well as more positive attitudes about individuals with disability. In addition, any viewing of "Glee," rather than frequency, was also related to more positive attitudes about individuals with disability. These findings demonstrate that inclusivity within the media landscape matters, and representation of individuals with disability can relate to viewers' attitudes about individuals with disability.

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