

BELIEFS ABOUT INDIVIDUALS WITH DISABILITY AS RELATED TO  
MEDIA PORTRAYAL OF DISABILITY IN *GLEE*

---

A thesis  
presented to  
the Faculty of the Graduate School  
at the University of Missouri

---

In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts

---

by  
EMILY LORENZ  
Dr. Cynthia M. Frisby, Ph.D.,

MAY 2016

The undersigned, appointed by the dean of the Graduate School, have examined the  
thesis titled

BELIEFS ABOUT INDIVIDUALS WITH DISABILITY AS RELATED TO MEDIA  
PORTRAYAL OF DISABILITY IN *GLEE*

presented by Emily Lorenz,

a candidate for the degree of master of arts

and hereby certify that, in their opinion, it is worthy of acceptance.

---

Professor Dr. Cynthia M. Frisby

---

Professor Dr. Elizabeth (Lissa) Behm-Morawitz

---

Professor Dr. Sungkyoung Lee

---

Professor Dr. Cristina Mislán

## **DEDICATION**

In loving memory of mom, Janice Peurrung, I would not be who I am without her, and this research would not exist. With love and gratitude, dedicated to Kevin, Lily, Michael, and Kate – everything I do, I do for and because of my family.

## **ACKNOWLEDGEMENTS**

Thank you Dr. Frisby, you are truly an inspiration and your support through this process has been invaluable. I am grateful for your positive attitude, dedication and support in my research.

Thank you also to Dr. Elizabeth (Lissa) Behm-Morawitz, Dr. Sungkyoung Lee and Dr. Cristina Mislán for serving on my committee and helping make my dream a reality.

Finally, thank you to Sarah Smith-Frigerio for her support, encouragement and answering myriad questions for me during the past eight (yes, I said eight) years since I started this master's program.

## TABLE OF CONTENTS

ACKNOWLEDGEMENTS .....	II
LIST OF TABLES .....	V
ABSTRACT .....	VI
1. INTRODUCTION .....	1
2. LITERATURE REVIEW .....	5
Historical Background of Disability in the Media .....	5
Portrayal of Disability on <i>Glee</i> .....	8
Previous Studies Directly Related to Disability .....	10
Show-Specific Cultivation .....	12
Cultivation Studies of Other Minorities .....	16
Social Cognitive Theory and Identification .....	18
Hypotheses .....	20
3. METHOD .....	22
Participants and Procedure .....	22
Materials and Survey Design .....	23
Operationalization of Variables and Analysis .....	24
Independent Variables .....	24
Procedures .....	27
Data preparation .....	28
Limitations .....	31
4. RESULTS .....	33
Hypotheses Analysis .....	33
Additional Findings .....	35
Has watching <i>Glee</i> affected your perception of individuals with disability? .....	37
Results Conclusion .....	39
5. DISCUSSION .....	40

Hypotheses analysis .....	41
Limitations .....	45
Recommendations .....	46
6. SUMMARY AND CONCLUSIONS .....	48
REFERENCES .....	50
APPENDIX.....	54
HYPOTHESIS CHART.....	54
SURVEY.....	57

## **LIST OF TABLES**

Table	Page
1. Descriptive statistics of main variables.....	31
2. Correlations among independent and dependent variables.....	36

BELIEFS ABOUT INDIVIDUALS WITH DISABILITY AS RELATED TO  
MEDIA PORTRAYAL OF DISABILITY IN *GLEE*

Emily Lorenz

Dr. Cynthia Frisby, Thesis Supervisor

ABSTRACT

This study explores how exposure to disability portrayal on television is related to beliefs about individuals with disability. This study uses show-specific cultivation theory and its discussion of how television viewing can influence perceptions and beliefs as well as social cognitive theory and the process of media identification. An online survey was conducted to examine respondents' viewing habits of the television program *Glee*, which featured several characters who had varying disabilities (wheelchair use, down syndrome and many others), and how viewing these mediated representations related to beliefs about individuals with disability. The results showed that identification with Artie, a main character on *Glee* with a disability, is correlated with frequency of viewing as well as more positive beliefs about individuals with disability. In addition, any viewing of *Glee*, rather than frequency, was also related to more positive beliefs about individuals with disability. While social cognitive theory, in particular identification, showed strong relationships with findings, results did not line up with cultivation as frequency of viewing did not correlate with more positive beliefs. Overall, the research demonstrated that portrayal of disability in the media relates to beliefs about individuals with disability and hopes to encourage more inclusion in the media landscape as well as additional research related to disability in the media.

## **Introduction**

The 2010 U.S. Census found 18.6 percent of Americans – more than 56 million - 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, a lack of representation in the media. As Harris (2013) discusses, individuals with physical disabilities appear in less than one percent of characters on television. Harris explains the power of media in forming our beliefs, saying, “not only are media our introduction to many different kinds of people, but sometimes media are practically the only source of our information about them” (p. 73). This research study considered how portrayal of disability on television relates to beliefs about individuals with disability.

Relative lack of representation of disability in the media has coincided with very little of research about how existing portrayals, or lack thereof for that matter, relate to beliefs about disability. Generations of researchers have explored how the mass media affects the way that we look at the world, and the people who surround us. Limited research has been conducted looking at media portrayal of individuals with disabilities and the relationship to beliefs. Only one study that does look at disability perception as related to media portrayal could be found, Farnall and Smith’s 1999 research titled “Reactions to People with Disabilities: Personal Contact Versus Viewing of Specific Media Portrayals.” This study’s findings are important as they do show a relationship between viewing of media content related to disability and positive beliefs about

disability. This research is most relevant to this study, but didn't look at long-term television viewing.

Because of the limited amount of disability portrayal in the media this is a difficult research topic to study. To address this issue, this research studied the media effects of disability based on 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. *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 (examples include gay, lesbian, black and Asian members) 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 forms of physical disability. *Glee* is known for tackling social issues. *New Directions for Social Change* (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 strong 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. It averaged 10.9 million and 9 million total viewers for seasons two

and three respectively (Goldberg, 2014). Even as it began its decline, it continued to remain a top ten program for teenagers as well as households with income more than \$100,000 (para. 4). These facts combined with its inclusion of disability content made it a strong fit for this study.

This study of media effects looked specifically at how beliefs about individuals with disability correlated with viewing of *Glee*. Several other studies have looked at how portrayal of a character or group on a single television show related to beliefs. Examples include Schiappa, Gregg and Hewes' (2006) study titled "Can One TV Show Make a Difference?" that focused on viewing habits of *Will & Grace* and how that related to perceptions of homosexual males. Another example is Aubrey, Behm-Morawitz and Kim's (2014) research looking at perceptions of pregnancy as related to viewing of *16 and Pregnant* in "Understanding the Effects of MTV's *16 and Pregnant* on Adolescent Girls' Beliefs, Attitudes, and Behavioral Intentions Toward Teen Pregnancy." These will be addressed further in the literature review but are important to mention here as they demonstrate how portrayal of a group on one television show can correlate with perceptions about that group and thus help guide the approach taken in this research.

Specifically, the purpose of this research study was to demonstrate, using a survey, that exposure to portrayals of disability on the television program *Glee* related to positive beliefs about disability. This research was grounded in cultivation theory and its discussion of how media consumption can influence perceptions and beliefs. Further, social cognitive theory helped provide a foundation for how identification with Artie also related to beliefs about individuals with disability. This research is important because

there is a lack of research in this area, despite individuals with disabilities making up a large percentage of the American population.

To provide background for this study, a literature review will include a brief history of disability in the United States and typical media representations of disability as well as portrayal on *Glee*. The review will then look at cultivation theory and how it has been used to study one show and how portrayals on that show can relate to beliefs. It will also include other broader cultivation research looking at portrayal of minority groups in the media and how that relates to perception. Finally, the literature review will take a look at social cognitive theory and how vicarious learning and identification through the media can also correlate with beliefs about groups. Following the literature review, the methodology will be discussed, including an outline of the survey, details about participants, research materials and methods for analysis. Following, results will be discussed and insight given to the hypotheses. The discussion and conclusion will wrap up the findings from the survey, discuss limitations and provide recommendations for future research.

## **Literature Review**

To provide background to the study, this literature review includes a brief history of disability in the United States and considers typical media representations of disability as well as representation on *Glee*. The review will then look at cultivation theory and how it has been used to study one show and how portrayals on that show can relate to beliefs. It will also include other broader cultivation research looking at portrayal of minority groups in the media and how that relates to perception. Only one deals with disability specifically, however, the others provide useful insights into forming this research's theoretical basis, method and hypotheses. Finally, the literature review will take a look at social cognitive theory and how vicarious learning and identification through the media can also correlate with beliefs about groups.

### **Historical Background of Disability in the Media**

While representation in the media is still much lower than actual numbers of Americans with disabilities, this group has come a long way in the past century. This section will provide a brief background on disability in the media to help provide context to the research study. The Americans with Disability Act celebrated its twenty-fifth anniversary in 2015. In his article, "The Media Role in Building the Disability Community," Jack Nelson (2000) discusses the evolution of the disability community, and in particular, how the media has been a part of the process. During the past century, Nelson argues, the disability community has been through four stages, beginning with the Dark Ages of Disability, which lasted for centuries, when individuals with disabilities

were generally shunned from society. After disabled veterans began returning home from WWII was the era Nelson called Awareness of Rights. However, individuals with disabilities were still portrayed in stereotypical manners during this time (and many would argue still are), such as “The Disabled Person as Victim: The Focus of Telethons,” “The Disabled Person as Hero: Supercrip” and “The Disabled Person as One to Be Cared for: The Burden” (p. 182-186).

Probably the most significant and well-known period in the history of disability in the United States is referred to by Nelson as Mobilization to Action. During this time, many people with disabilities began to fight for their rights, and this period culminated with the passage of the Americans With Disabilities Act in 1990. In addition to legal changes were also some changes in attitudes, assisted in large part by more forward-looking media portrayal such as *Born on the Fourth of July* and *Life Goes On* (p. 186). In addition, during this time, the Associated Press and other groups engaged in efforts to include person-first language (for example, instead of “wheelchair-user” or “confined to a wheelchair,” say “person who uses a wheelchair”) and avoid derogatory language (p. 188). Finally, Nelson describes the fourth era as the Revolution of Technological Community. This time in history is offering the opportunity for people with disabilities to connect to others around the world, and interact online (p.182).

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).

Again, portrayal on disability is still limited, however, over the years the media has evolved in its portrayal of disability. Harris discusses four stages of the portrayal of minorities on television. Here is a brief review of the stages as they relate to disability portrayal:

- Non-recognition: “minority group is simply excluded” (p. 93). The most prominent example is FDR hiding his use of a wheelchair.
- Ridicule: “the dominant group bolsters its own self-image by putting down and stereotyping the minority” (p. 93). Characters with physical disabilities have often been used to portray evil and/or genius characters. Some examples include *Doctor Who* and *Doctor Strangelove*.
- Regulation: “minority groups appear as protectors of the existing order” (p. 93). Examples here include characters on *CSI* and *Family Guy*.
- Respect: “minority group appears in the same full range of roles” (p. 93). Recent programs including *Glee*, *Malcom in the Middle*, *Friday Night Lights*, *CSI*, *Lost*, *Family Guy*, *Oz*, *South Park*, *Breaking Bad*, *Parenthood* and *The Killing* have characters with disability.

Disability on television has had a range of portrayals, both positive and negative, as has disability portrayal in general in the media. Julie Passanante Elman discusses portrayal of disability in her (2012) study “Teen Sick-Lit, Sadness, and the Condition of Adolescence.” She focuses on the negative portrayals of disease and disability in a popular genre of novels that focus on sickness. Some of the “egregious and patronizing

cultural stereotypes about disability” include characters who promote inspiration, pity, tragedy, are in need of parental oversight and used as avenues for others’ social growth (p. 179). Many of the novels she discusses contain these tropes which also carry across into other media. She does discuss some positive portrayal, for example she says “Characters with disease or disability are often desexualized within dominant culture” (p. 185). However, in this genre of literature they are often portrayed as having normal, sexual relationships (p. 186). Positive portrayal of disability is related to encompassing healthy relationships as well as well-rounded individuals who don’t have to conform to society to succeed.

### **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. As Elman discusses, there can be both negative stereotypes as well as positive portrayals within the same medium. *Glee* fits this mold, as Artie was often portrayed in a positive light as he has normal, sexual relations, and also everyday teen struggles 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. This being said, this study is not looking to make a definitive statement about whether the portrayal was inherently positive or negative but rather look at how the viewer perceived the portrayal and how that correlated with beliefs about individuals with disability.

Overall, researchers have found many positives in *Glee*, although not exclusively. Lauren Levins (2013) conducted a content analysis of the first three seasons of *Glee* for her thesis project titled “Dancing With Myself: Representations of Disability Within *Glee*.” She focused on the different types of disability portrayed, the storylines that focused on disability as well as relationships among characters. While Artie is the most central character with disability on *Glee*, who used a wheelchair and appeared in all 121 episodes, the show depicted many other characters with disability. In the first three seasons alone, Levins found 12 characters who had a disability, ranging from physical (deaf, blind) to mental (Down syndrome, Asperger’s). In addition to the range of characters with disability, there was a range of storylines, prominently featured were relationships, both romantic and friendly, as well as obstacles. Levins discussed both negative portrayals and reactions to disability as well as positive and encouraging. She 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* (2015) also discussed disability portrayal in 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 (p. 140). One episode she discussed is titled “Wheels” and focused on Artie’s growth and his portrayal, explaining,

The theme of building relationships attempts to portray disability in a positive light, with an emphasis on the inclusive attitude of the students. The romantic

relationship between Artie and Tina is used to show how characters with difference due to disability can take on a central role in the life of a mainstream school and to display the everyday difficulties that the ‘typical’ high school teenagers face on a daily basis. (p. 148)

Hasson’s research for this book primarily focused on theme analysis and found representations consistent with both the medical model and social media of disability, as well as the most recurrent content about disability included type of disability, bullying issues, education, inclusion and administrative involvement (p. 152).

In summary, researchers have found positive takeaways from the show as Artie is generally portrayed as an average teenager who deals with romantic relationships, friendships, plans for his future and other everyday issues. Again, though, this study is not trying to argue that the show portrays disability in a completely positive or negative light, but rather look at how viewers perceived the portrayal and how that relates to their beliefs about individuals with disability.

### **Previous Studies Directly Related to Disability**

So how does media portrayal of disability relate to beliefs about individuals with disabilities? Well, extremely limited research has been conducted looking at this relationship. The most relevant is Farnall and Smith’s “Reactions to People with Disabilities: Personal Contact Versus Viewing of Specific Media Portrayals.” This research is the closest example to what this study considered, but it didn’t look at specific television viewing, as this study did. It also only considered short-term movie and program viewing instead of long-term. In fact, researchers in their discussion recommend future researchers look at cumulative viewing of television programming

with disability content (p. 669). However, its findings are important as they did show a relationship between viewing of media content related to disability and beliefs about disability, especially when first-hand experience was lacking.

For their research, Farnall and Smith conducted a secondary analysis of data from a survey conducted by the National Organization on Disability. They looked at viewing habits of specific television programs and movies and their relationship to perceptions of individuals with disabilities, which included individuals who were blind, deaf, autistic, had cerebral palsy, Down Syndrome and used a wheelchair. This study found that 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. The findings of this study showed that viewing certain media content featuring individuals with disabilities can have a link to perceptions and beliefs about disabilities.

Limited additional research can be found looking at media content as related to attitudes about disability. One relevant example is Smedema, Grist-Gordon and Ebener's (2012) "The Impact of Humorous Media on Attitudes Toward Persons with Disabilities." Researchers conducted an experiment, having participants watch short films about individuals with disability either humorous in tone or not, and found when controlling for other factors, those who watched the humorous video had more positive attitudes about individuals with disabilities. This is relevant to the proposed study as it showed correlation between media content and attitudes, however this focused only on short-term viewing.

Many other studies have looked at perceptions of disability in general, not related to mass media influence. One notable example is Hergenrathe and Scott's 2007 study "Exploring Undergraduate Student Attitudes Toward Persons With Disabilities," which looked at social context as it relates to attitudes about individuals with disabilities. Researchers developed a scale to look at college students' attitudes about individuals with disability as related to marriage, dating and work. The study found context matters when looking at attitudes toward individuals with disabilities, as respondents had the most positive attitudes about individuals with disabilities in the workplace (p. 72). In addition, gender of the respondents was significant, with females scoring higher than males on all scales in the study (p. 72). This study is relevant to the proposed research as it included a useful and reliable scale to measure social attitudes about disability.

### **Show-Specific Cultivation**

Again, as the previous sections outlined, not only is there limited research about disability in the media as it relates to beliefs, but there is also limited portrayal of disability. It is possible that the main takeaway of television viewers is that disability is rare, which might be true of certain disabilities, but not the only worthwhile perception of disability. Because of this fact, this literature review will take a look at cultivation theory and how it guided this approach to examine media effects based on viewing of one specific show.

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 “The State of Cultivation” and how its continuing to grow and adapt, in fact more than 125 studies were published in cultivation research from 2000-2010 (p. 337). They discuss trends in the theory, one of which is the continued use of cultivation to study perception of minorities. Several of these examples will be discussed further below. 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 (p. 340-341). In addition, some researchers have taken this a step further with show-specific cultivation. The example referenced is Quick’s 2009 research that considered *Grey’s Anatomy* viewing and how it related to beliefs about doctors.

Quick’s research “The Effects of Viewing *Grey’s Anatomy* on Perceptions of Doctors and Patient Satisfaction” looked at perception of one group based on portrayal on a specific television program. This research drew from cultivation theory and provided a

unique perspective by focusing specifically on one television program. Quick argued, “After all, 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 of this medical drama” (p. 42). He also hypothesized that those with less first-hand experience with doctors would perceive the depiction on *Grey's Anatomy* as true-to-life. The research used a survey and had students recruit other students to take part. The survey ended up with 269 participants, 95 of which had not seen the show. Among other findings, the research found that the more people were exposed to *Grey's Anatomy*, the more realistic they perceived the program. This research is relevant to this proposed study as it used cultivation theory to study one show and how it relates to perception, with findings that did show a relationship between perceptions of a group based on specific television viewing. It also successfully used a survey to study this topic, and included individuals who had not viewed the television program of interest.

Several other researchers have looked at viewing of a specific show and how it related to beliefs about a group on that show, and while not directly employing cultivation, overall theory and research goals relate strongly to this study. Schiappa, Gregg and Hewes (2006) carried out a study titled “Can One TV Show Make a Difference?” that focused on viewing habits of *Will & Grace* and how that related to perceptions of homosexual males. Researchers applied a combination of the contact hypothesis, rooted in psychology, and parasocial interaction, which argues that “viewers form beliefs and attitudes about people they know only through television” to frame their study (p. 20). The ideas addressed in their research are very similar to the theory

discussed so far in this literature view. Schiappa et al. hypothesized “that exposure to positive portrayals of minority group members that produce parasocial interaction will be associated with a decrease in prejudicial attitudes” (p. 22).

To carry out their research, Schiappa et al. conducted a survey in which they looked at respondents’ viewing habits as related to *Will & Grace*, perceptions of the show and its characters, respondents’ social contact with gay men and women, as well as attitudes about gay individuals. They surveyed 245 individuals, 69 percent of which watched the program “every once in a while” or more (p. 27). They used an established scale, the Attitudes Toward Lesbians and Gay Men (ATLG) instrument. They found significant support for all of their hypotheses, demonstrating viewing frequency as well as parasocial interaction predicted lower levels of prejudice for gay men (p. 31). This study provided specific guidelines for framing this research study. This research structured the hypotheses and survey very similarly, with sections related to viewing habits of *Glee*, perceptions of the show and its characters, respondents’ social contact with individuals with disability as well as attitudes, to be discussed further in the following chapter.

In addition, Aubrey, Behm-Morawitz and Kim (2014) explored viewing of *16 and Pregnant* and the relationship this has to views and beliefs about teen pregnancy in “Understanding the Effects of MTV's *16 and Pregnant* on Adolescent Girls' Beliefs, Attitudes, and Behavioral Intentions Toward Teen Pregnancy.” Their study also referenced social cognitive theory and Parasocial Interaction to consider how viewing of a specific television program related to perceptions of teen pregnancy, perceived risk of pregnancy and attitudes about teen pregnancy. They used a field experiment and online

survey to study this topic and recruited participants using online sources including fan groups for popular teen programming. The results of their study were very interesting, somewhat unexpected, and useful to this study as they showed correlations between viewing frequency and parasocial interaction as related to beliefs about teen pregnancy.

### **Cultivation Studies of Other Minorities**

Further, this literature review will discuss several studies that consider perceptions and beliefs of a minority as related to media portrayal. These studies have helped in the development of the theoretical approach, hypotheses and research design for the proposed research as will be discussed. These researchers have successfully used surveys grounded in cultivation theory to answer their research questions and this methodology has led to relevant and significant findings about correlations between media portrayal and perceptions.

What these studies all have in common is evidence showing how surveys are a useful tool to study 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. What lacks in the research, though, are studies of how television portrayal relates to beliefs about disability.

Fujioka's (2009) study "Television Portrayals and African-American Stereotypes: Examination of Television Effects When Direct Contact is Lacking" is relevant. In this study, Fujioka employed a survey to study white and Japanese individuals' perceptions about African Americans based on media portrayal. Fujioka applied both cultivation and social cognitive theory. One of her findings was that television messages had a stronger impact on perceptions when firsthand information was lacking. She selected Japanese

American students and white students and compared how they perceived African Americans based on media exposure and personal contact. Her findings showed a significant relationship between positive views of African Americans and number of positive television portrayals seen (p. 67).

Punyanunt-Carter (2008) also looked at media portrayal and perceptions as they relate to African Americans in her study, "The Perceived Realism of African American Portrayals on Television." This quantitative study was grounded in cultivation theory, examining people's perceptions of African Americans based on television portrayals and also looked at whether viewers perceived the portrayals as true to life. Punyanunt-Carter surveyed more than 400 university students. Her survey used the perceived realism scale (PRS) and also asked participants demographic questions and inquired about the amount of television they watch and how much they enjoy watching African American television programming (p. 247). The study 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). In general, the findings "suggest that portrayals of African Americans on television may have an influence on viewers and their perceptions about African Americans in general" (p. 251).

A final example, Dong and Murrillo (2005) studied stereotypes towards Hispanic Americans based on media portrayals in their research "The Impact of Television Viewing on Young Adults' Stereotypes Towards Hispanic Americans." Again, this study referenced cultivation theory, as well as the contact hypothesis, which focuses on how media creates stereotypes more readily if first-hand experience with a group is lacking (p. 37). Dong and Murrillo also used a survey, looking at 474 college students. Their survey

design included eight sections to measure stereotype development as well as levels of survey-takers' personal contact with Hispanic Americans. A key independent variable in the research was how much subjects learn about other races through television watching (p. 39). This study found white Americans tended to form negative stereotypes of Hispanic Americans if television was the primary way they learned about this group.

### **Social Cognitive Theory and Identification**

In addition to using cultivation theory to frame this research, social cognitive theory will also provide insight, in particular related to 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. Harris says, "the basic premise of this theory is a simple one: We learn behaviors by observing others performing those behaviors and subsequently imitating them ourselves" (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 cognitive theory argues that mass media plays an influential role in conveying symbolic communication, and one of the most relevant aspects of this theory for the purposes of this proposed research 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 (p. 271). 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 with the character is an essential component of social cognitive theory and vicarious learning, as discussed by researchers including Ortiz and Harwood (2007).

They argue when individuals identify with characters, vicarious learning is more significant.

Cohen (2001) says, “Identification is an imaginative process through which an audience member assumes the identity, goals, and perspective of a character.

Identification is hypothesized to be promoted by technical production features and audience and character attributes” (p. 261). Cohen developed a scale to measure identification, which is used in this study.

In “A Social Cognitive Approach to the Effects of Mediated Intergroup Contact on Intergroup Attitudes” Ortiz and Harwood employed social cognitive theory to study television viewers’ perceptions of characters’ relationships on *The Real World* and *Will & Grace*. Specifically they studied straight and white individuals’ perceptions and beliefs about the friendships of black/white and gay/straight characters. Identification was a guiding element in their study, they explain, “specifically the associations of viewings with intergroup anxiety and attitudes should be greater for those who identify more strongly with the ingroup character” (p. 618). Hypotheses were partially supported. In particular, identification with Grace was shown to correlate with more positive attitudes about homosexuality. Similarly, this research explored whether identification with Artie correlated with more positive beliefs about individuals with disability.

## **Hypotheses**

The literature review provided some background on history of disability in the media to provide an understanding of how it has been limited, but has made strides in recent years. One notable stride is the program *Glee*, which aired from 2009-2015 and included regular and varied portrayal of disability. Because of the limited nature of disability portrayal in the media, focusing on a program that included a high level of disability portrayal helped examine effects grounded in show-specific cultivation theory. The previous literature directly related to this subject is nearly nonexistent, so this literature review attempted to pull together many varied studies of perception and attitudes as related to media viewing to provide insight into theory, hypothesis/research questions and method/analysis to help answer this unique research question. Following next will be a detailed look at the method used to study this topic, which has been inspired and guided by many of the studies addressed in this literature review.

This study explores an area of media effects that has received very little attention - how exposure to portrayals of disability in the media related to beliefs about individuals with disability. Research was framed by cultivation and social cognitive theories and their discussion of how media influences perceptions and beliefs. This study looked at the relationship between viewing habits of *Glee*, a show with a central character who used a wheelchair as well as other portrayals of disability, and beliefs about individuals with disability.

Specifically, the purpose of this research study was to demonstrate, using a survey, that exposure to portrayals of disability on the television program *Glee* related to positive beliefs about disability. The following hypotheses were proposed:

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

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

H3: Greater frequency of viewing *Glee* will be associated with more positive beliefs 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.

## **Method**

This study used a survey to examine how portrayal of individuals with disability on *Glee* is related to people's beliefs about this minority.

In order to include a range of age groups to participate in this research, an online survey was used. As discussed by Evans and Mathur (2005) as well as Sue and Ritter (2012), online surveys have numerous benefits including efficiency, low cost and speed as well as additional benefits like ability to require certain questions be answered and control of order of questions.

For this research, an online survey was designed to explore the relationship between viewing habits of *Glee* and beliefs about individuals with disability. *Glee* was a natural selection for this study as it is a modern and highly-rated show that not only had a central character who used a wheelchair, but also included regular portrayal of other characters with disability. Further, while ratings did fall in later seasons, 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.

### **Participants and Procedure**

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 \$.25 for their participation.

Before starting the survey, the participants reviewed a consent form. If they agreed by selecting “I Consent,” the participant was taken to the first question of the survey. Participants accessed the online survey from their personal devices during the time period of October 26- November 10, 2015. All participants answered the first section, which included the Disabilities Social Relations Generalized Scale. 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.

### **Materials and Survey Design**

The online survey was designed using the University of Missouri’s institutional Qualtrics account. It included close-ended questions to help with coding and analysis. To provide insight into the research questions, the survey included four primary sections:

- The first section examined beliefs about individuals with disability. It also included two questions specifically inspired by cultivation theory, asking survey respondents what percentage of individuals in America they believed have a disability as well as what percentage of adults with disability they believed were employed.
- The second section considered respondents’ viewing and perceptions of *Glee*. This included specifics about viewing frequency as well as information about perceptions of the show. This also included one open-ended, qualitative question which asked “Has watching *Glee* affected your perception of individuals with

disability? If so, in what way(s)?" This question was added to help contextualize quantitative results.

- The third section looked at identification and likeability of Artie as well as engagement with *Glee*.
- The fourth section of the online survey included a question to understand how much first-hand experience respondents have with individuals with disability. In addition, demographic measures were included in the survey as they were used in analysis.

### **Operationalization of Variables and Analysis**

#### **Independent Variables.**

- *Viewing frequency of Glee.* Viewing frequency of the program was measured by likert 5-point scale – to measure how often respondents watch *Glee* where -
  - Very Infrequent - Have seen once or twice
  - Somewhat Infrequent - Have seen the program a few times during the past few years
  - Somewhat Frequent - Have seen about half of the episodes of *Glee*
  - Frequent - Watched majority of episodes
  - Extremely Frequent - 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, which include the following categories,

- 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.
- 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' study "Can One TV Show Make a Difference?":
  - "Glee has encouraged me to think positively about individuals with disability."
  - "Glee provides a positive view of individuals with disability."
  - "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?
- Overall, do you think Artie and other characters on *Glee* are positive representations of disability?

An overall score was created using the mean of respondents' answers to each item.

### **Dependent Variables.**

- *Beliefs about individuals with disability.* Beliefs about individuals with disability was measured by the existing Disabilities Social Relations Generalized Scale (Hergenrather and Rhodes, 2007). There are 17 items on this scale which can be

viewed in the full survey in the appendix. The DSRGD 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. As researchers who created the scale discusses, the DSRGD “had high internal consistency, represented by a Cronbach’s alpha of .89. Each of the summated scales of Dating, Marriage, and Work had good or excellent reliability, represented dimensionality, and conformed to the conceptual definitions identified by the DSR” (p. 71-72). The findings from the scale also supported previous research on social context of attitudes toward persons with disabilities (p. 72). For analysis, one item on the scale was reverse-coded (first question of the second part, the dating sub-scale). Next, an overall score was created using the mean of respondents’ answers to each item.

- *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. An overall score was created using the mean of respondents’ answers to each item.
  - I was able to understand the events in the program in a manner similar to that in which Artie understood them.
  - I think I have a good understanding of Artie.
  - I tend to understand the reasons why Artie does what he or she does.
  - While viewing the show I could feel the emotions Artie portrayed.
  - During viewing, I felt I could really get inside Artie’s head.

- At key moments in the show, I felt I knew exactly what Artie was going through.
- While viewing the program, I wanted Artie to succeed in achieving his goals.
- When Artie succeeded I felt joy, but when he failed, I was sad.
- *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 inspired by Auter and Palmgreen's (2000) Audience-Persona Interaction Scale, used to measure parasocial interaction. Statements that comprised this scale are as follows,
  - While viewing *Glee*, I felt as if I was part of the action.
  - While viewing *Glee*, I forgot myself and was fully absorbed.
  - While watching *Glee*, I felt included in the group.
  - The characters on *Glee* had interactions similar to mine with friends.

## **Procedures**

As briefly discussed above, an online survey was used for this research to obtain a large amount of data from a wide population of adults ages 18 and older. An online survey offered the benefit of reaching out to a large population and easily and quickly obtaining data. The following steps were taken; this list was initially developed with support from Sue and Ritter's *Conducting Online Surveys*.

- Defined the population and chose a sampling frame: Non-probability sample was selected to survey 300+ American adults 18+. Recruitment planned to be done through social media and Mechanical Turk.
- Developed a questionnaire: Designed survey using University of Missouri's institutional Qualtrics account. Received feedback from committee and pretested online survey with five individuals to ensure respondents understood instructions, survey worked properly and questions were clearly worded. In order to prevent the likelihood of an ordering effect, participants first completed the DSRGD. Participants answered questions about *Glee* and contact with individuals with disabilities after their attitudes were measured.
- IRB approval: Obtained approval from University of Missouri's Institutional Review Board.
- Collected data: Distributed the survey via Facebook and Twitter through personal contacts, as well as Amazon's Mechanical Turk.
- Managed the data: Exported data into SPSS. Reserve coded when necessary and created several scales (beliefs about individuals with disability, engagement, identification, perception of disability on *Glee*).
- Analyzed the data: See details on hypotheses chart in the appendix. Used SPSS and solicited help from University of Missouri Statistics Lab. Ran correlation, partial correlations, t-tests, ANCOVA .

### **Data preparation**

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.

Participants took a 47-item survey understanding that their answers would be kept confidential. Several variables were computed using survey data. Each of these variables were computed by creating a mean score of all items in the scale. Cronbach's  $\alpha$  determined reliability for each of the scales. The following variables were created from the survey data to use in analysis:

- *Beliefs about Individuals with Disability*: For analysis, one item on the 17-item scale was reverse-coded (first question of the second part, the dating sub-scale). Next, an overall score was created using the mean of respondents' answers to each item (as mentioned above, requiring participants had completed at least five items on the scale). A reliability analysis was conducted and Cronbach's  $\alpha = .853$ .
- *Perceptions of disability portrayal on Glee*. An overall score based on five questions was created using the mean of respondents' answers to each item. This score is used as the variable to measure perception of disability on *Glee*. Again, reliability analysis was conducted, Cronbach's  $\alpha = .866$ .
- *Identification with Artie*. An overall score based on eight items from Cohen's identification scale was created using the mean of respondents' answers to each item. Cronbach's  $\alpha = .908$ .
- *Engagement*. An overall score was created using the mean of respondents' answers to two items from Cohen's identification scale that focused generally on

the program *Glee* and two additional items inspired by the Audience-Persona Interaction Scale, used to measure parasocial interaction. Cronbach's  $\alpha = .866$ .

### **Descriptive Statistics**

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

The number of survey respondents who identified as having a disability was 20, 6.9 percent of the total. Further, 40.3 percent had a close friend or family member with a disability and 33 percent knew a casual acquaintance with a disability. This left only 43 respondents, 14.9 percent, who did not have personal contact with any individuals with disability.

Of the 288 respondents, 168 (59.2 percent) 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.

**Table 1***Descriptive statistics of main variables*

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

**Limitations**

As with any research, limitations do exist here. For one, disability studies related to mass media are limited, with only one other study examining media portrayal and how it relates to beliefs about a wide spectrum of both mental and physical disabilities. This does not provide a lot of 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 and the idea of studying content of just one television program is relatively new and unexplored. Along with this is the fact that employing cultivation to study one show is a relatively new area that has yet to be established. 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 correlation shown in this research. In addition, research used a convenience sample, not a probability sample due to the difficult nature to obtain this, which limits the ability to generalize results.

Finally, “human nature” and the tendency of some people to lie, exaggerate or answer how they feel makes them look good must also be considered when drawing conclusions.

## Results

### Hypotheses Analysis

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

A significant positive correlation between perception of disability portrayal on *Glee* and beliefs 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  $r(156)=0.276$ ,  $p<0.001$ .

This study rejects the null hypothesis of no correlation. There was a significant correlation between perception of disability portrayal on *Glee* and beliefs about individuals with disability.

H2: Greater frequency of viewing *Glee* will be associated with more positive beliefs 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.

However it is interesting to note that there was a weak relationship found between whether respondents saw *Glee* at all and their beliefs about individuals with disability. An independent-samples t-test was conducted to determine the relationship of whether respondents viewed *Glee* and their beliefs about individuals with disability. There was a significant difference in the beliefs 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 beliefs 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 beliefs 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 beliefs 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 beliefs about individuals with disability. An ANCOVA showed again there is a significant effect of any viewing of *Glee* on beliefs

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 positive correlation was found between frequency of viewing *Glee* and identification with Artie,  $r(158) = .396, p < .001$ . This research rejects the null hypothesis of no correlation. There is a significant correlation.

### **Additional Findings**

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

#### *Demographics and Beliefs about Individuals with Disability*

The data was analyzed to see if beliefs about disability correlated with any demographic measures and no relationships were found, with one exception. There was a weak correlation between how much personal experience an individual had with individuals with disability and beliefs about individuals with disability,  $r(274) = .190, p < .002$ .

#### *Frequency of Viewing*

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

*Identification*

- There was a positive correlation between identification with Artie and beliefs about individuals with disability,  $r(158)=.261, p<.001$ . When controlled for experience with disability,  $r(155)=.281, p<.001$ .
- In addition, a correlation was found between identification with Artie and perception of disability portrayal on *Glee*,  $r(158)=.528, p<.001$ .
- A positive correlation was found between identification with Artie and engagement with *Glee*,  $r(158)=.610, p<.001$ .

*Facts about Disability*

Survey participants were asked to answer two questions about disability in the real world. These were both multiple choice questions with four options about how many Americans have a disability, as well as how many Americans with disability are employed. Results were recoded as correct and incorrect. No correlation was shown between how often viewers watched *Glee*, or whether they watched at all, and their ability to identify the correct answers.

**Table 2**

*Correlations among independent and dependent variables*

Variables	1	2	3	4	5	6	7
1. Beliefs about individuals with Disability	—						
2. Perception of disability portrayal on <i>Glee</i>	.290***	—					
3. Frequency of Viewing <i>Glee</i>	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 <i>Glee</i> ?	.135*	—	—	—	—	0.067	—

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

### **Has watching *Glee* affected your perception of individuals with disability?**

One qualitative question was included in the survey in an effort to give some context to the quantitative data and statistics. This was not a required question, so the majority of respondents did not answer. Of the 110 who did reply, many simply wrote “no”, without any explanation (41 respondents). Some others said no, but provided an explanation for why not, most fell into two categories: because they didn’t watch frequently enough for it to have an effect, or they didn’t have a negative view of individuals with disability in the first place. Example included,

- “No. I've always believed that people who are differently abled were pretty fabulous.”
- “No, because I never had a negative view of people with disabilities in the first place.”
- “It hasn't changed anything; I already knew people with disabilities in real life, which formed my opinions about their capabilities before ever watching the show.”
- “I don't watch enough to know.”
- “I haven't watched it enough to be familiar with the characters who disabilities. So I would not say it has affected me.”

However, many respondents did express insight as to how *Glee* reinforced or provided new context for their beliefs.

- “I don't usually give much thought to what having a disability would be like, but *Glee* devoted several full episodes/plotlines to the topic, so it did make me think

about what they face and how they are actually more capable than I would have assumed in some situations.”

- “Yes. Watching *Glee* makes me realize that person with disability wants to be heard because they also have a talent.”
- “Artie was a great character who almost always exuded a positive attitude which helped people become more comfortable with him.”
- “Watching *Glee* has built a positive vibe about disability and instilled more confidence in the abilities of disabled people.”
- “I think it has. It’s beneficial to see people with disabilities in the same light as people without. It's beneficial to see them capable of doing things normal people would.”
- “It has shown me all that people who are disabled can accomplish. Their accomplishments are no different than the non-disabled.”
- “I already felt I had a good attitude toward those with disabilities. but the show did reinforce those views.”
- “It has increased the comfort and familiarity with such individuals and increased confidence in their abilities.”

One final category that responses did fall into was commentary about how the show portrayed disability.

- “In general it's just been good seeing at least one somewhat realistic disabled person reflected in TV.”
- “Knowing the character wasn't actually wheelchair-bound was a huge disappointment to me.”

- “No- must of the actors were just pretending disability. The girl on cheer team with Down syndrome was mocked by coach Sue. Disliked.”
- “It isn't often you see characters in the media with disabilities. It didn't change too much of what I already thought of people or characters with disabilities but I'm really hoping that more TV shows and movies will get the hint and start introducing more disabled characters. We need them.”

### **Results Conclusion**

Analysis showed that viewing frequency of *Glee* alone was not enough to correlate with more positive beliefs about individuals with disability. However, identification with Artie as well as perceptions of disability portrayal on *Glee* did correlate with more positive beliefs about individuals with disability. Any viewing of *Glee* also had a weak relationship with more positive beliefs about individuals with disability. The discussion will take a closer look at what these findings mean and how they can inspire future research and real-world applications.

## Discussion

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

While social cognitive theory, in particular identification, showed strong relationships with findings, results did not line up with cultivation. Viewing frequency did not correlate with more positive beliefs about individuals with disability. However, viewing frequency did correlate with identification, which in turn correlated with more positive beliefs about individuals with disability. 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.

## **Hypotheses Analysis**

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

This hypothesis was in part included to look at whether viewers of *Glee* believed that the portrayal of disability is positive. If they did not think it was positive, then how could it contribute to creating positive beliefs? The results section shows that *Glee* viewers did believe it showed a somewhat positive portrayal of disability. Further, this hypothesis was supported, perceiving *Glee* as a positive portrayal of disability correlated with having positive beliefs about individuals with disability. Further, those who watched more frequently were more likely to believe it showed positive portrayals of disability.

Support for this hypothesis is important because it shows that perceiving characters as positive perceptions of disability has a relationship with positive beliefs about individuals with disability in general. As discussed in the literature review, this research did not seek to make a definitive statement of whether disability portrayal on *Glee* was positive. Viewers' beliefs about the portrayal are what mattered here and findings support the notion that viewers perceived the portrayal of Artie as positive, and there was a significant correlation between having positive perceptions of the way disability was portrayed on *Glee* and positive beliefs about individuals with disability. Of course keeping in mind, correlation does not imply causation, this is not evidence that creating "positive" representations of disability on other programming will cause higher perception of disability. But the fact that there is a relationship here is encouraging and shows a need for additional research.

Support for this hypothesis shows a link to social cognitive theory. As Bandura theorizes, through modeled experiences, the media can create lasting attitudes and emotional reactions. In this research, results show that perceiving television characters as positive representations, relates to more positive beliefs about individuals with disability in the real world.

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

There was not support for H2, no correlation was found for viewing frequency of *Glee* and beliefs about individuals with disability. These results did not show a link to cultivation theory, viewing frequency did not correlate with more positive beliefs.

However, there was a weak correlation found between whether respondents saw *Glee* at all and their beliefs about individuals with disability. Certainly this could be because people seek content in line with their beliefs, and those with more positive beliefs 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. 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” (p. 660). Further research would be needed to seek out how memorable viewers find Artie to test if this theory really does apply. However, the drench hypothesis is food for thought as an interesting alternative to cultivation that could help explain findings that do not show a

relationship between frequency of viewing and more positive beliefs about disability but do show a relationship between any viewing of the program and more positive beliefs about disability.

Although the original hypothesis was not supported, the correlation between any viewing of *Glee* and more positive beliefs about individuals with disability is important and again encourages additional research about disability portrayals in the media.

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

No support was found for this hypothesis, again contrary to expectations and not in line with cultivation theory.

However, an important takeaway here is that the weak relationship between whether respondents saw *Glee* at all and their beliefs about individuals with disability was still significant when controlled for personal experience. Even with this control introduced, there was still a significant, although weak, relationship to between any viewing of *Glee* and more positive beliefs about disability. Again, causation cannot be inferred here, it might just be that people seek out content that is in line with their already established beliefs. Again, the drench hypothesis could be an alternative to cultivation to explain these findings.

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

Support for H4 is the strongest and also seems to have a strong potential to trigger further research. A positive correlation was found between viewing frequency of *Glee* and identification. Further, there is a correlation between identification with Artie and beliefs about individuals with disability. In addition, when this was controlled for first-hand experience, correlation between identification with Artie and beliefs about individuals with disability was still significant.

So if identification with a character with a disability correlates with more positive beliefs about individuals with disability, what is it that causes identification? A couple correlations were found in this research, of course as this hypothesis supports, frequency of viewing correlated with identification. Although this research found frequency of viewing alone did not correlate with more positive beliefs 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" (p.

261). Further, identification comes from a “carefully constructed situation” (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 (p. 256). 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 (p. 259). *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 theory is also useful to help explain why more frequent viewers are more likely to identify with Artie, as well as why they are more likely to have more positive beliefs 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 (p. 260)

This study aligns with this theory and shows that identification with a character with a disability did correlate with more positive beliefs about individuals with disability.

### **Limitations**

Limitations about the sample selection and method used were addressed in the Methods chapter. In this discussion, two limitations of the data itself will be considered.

First, only 14.9 percent 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 this criteria.

One further limitation with the data was the distribution of frequency of viewing *Glee*. The majority were not heavy viewers; 69 individuals (41.3 percent of reported *Glee* viewers) responded that they watched very infrequently and 41 individuals (24.6 percent) answered somewhat infrequent. Thirty-four individuals, (20.4 percent) watched somewhat frequently and only 23 individuals (13.8 percent of reported *Glee* watchers), identified as watching very or extremely frequently. Ideally, more equal distribution would have been preferable, in particular to hypotheses that focused on frequency of viewing.

### **Recommendations**

As discussed, very little research exists looking at portrayal of disability in the media, specifically how it relates to viewer beliefs about disability. The findings of this research show there is a relationship in this case, 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 beliefs about disability. Although *Glee* did feature many characters with both physical and mental disabilities, Artie, who used a wheelchair, was the most obvious representation. Additional studies looking at different types of disability could provide further insight, especially since

disability encompasses such a wide umbrella of both mental and physical conditions. In addition, studies specifically targeting heavy viewers of disability-heavy content such as *Glee* or individuals who do not have much personal experience with disability would provide understanding as well, as this study had a smaller percentage of heavy viewers as well as limited individuals who didn't have personal experience with disability. Another potential study could create a panel design and recruit individuals who have not seen *Glee*, and have them watch a season of the show. The study could do several surveys along the way (pre, mid and post) to look at beliefs about individuals with disability to see if viewing over time related to more positive beliefs. Results could be contextualized using social cognitive, Drench hypothesis or cultivation theory.

From a real-world perspective, this study is evidence that even small exposure to what viewers perceive as positive representation of disability can relate to more positive beliefs about individuals with disability. Even though many disability advocates were not fans of *Glee* or Artie, this research shows many viewers perceived him as a positive representation, and more importantly, this related to more positive overall beliefs about individuals with disability. Disability advocates should continue to encourage characters with disability in the media, knowing exposure to them can correlate with more positive beliefs about individuals with disability.

## Summary and Conclusions

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 perceptions, there has been a lack of research about portrayal of disability in the media and how it relates to beliefs 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.

Specifically, cultivation theory has informed this research with its focus on television and how it influences viewers' understandings of the world, while social cognitive theory provided insight into identification with Artie. While a relatively new idea, applying cultivation to look specifically at one television program offered an opportunity in this case to get a better idea of how media portrayal related to beliefs about disability. Even though results did not line up with expectations based on cultivation, the theory offered a useful approach to the study. *Glee* was a natural selection for this study as it is a modern and highly rated show that not only had a central character who used a wheelchair, but also included regular portrayal of other characters with disability. In addition, the strengths of the survey method in terms of obtaining a large amount of information from many people, and its ability to show correlation, made it a strong choice for this study.

The fact that disability studies as related to the media is lacking has certainly been a challenge, but it also was an exciting opportunity to make significant contributions. This research further contributed to knowledge of media effects, and provided insight into how media portrayal correlates with beliefs about individuals with disabilities. Using correlation, partial correlation, t-tests and ANCOVA, this research found that identification with Artie, a main character with a disability on the show *Glee*, correlated with frequency of viewing as well as more positive beliefs about individuals with disability. In addition, any viewing of *Glee*, rather than frequency, was also related to more positive beliefs about individuals with disability. The research demonstrated that portrayal of disability in the media relates to beliefs about individuals with disability and hopes to encourage more inclusion in the media landscape as well as additional research related to disability in the media.

## References

- Aubrey, J.S., Behm-Morawitz, E. & Kim, K. (2014). Understanding the effects of MTV's 16 and Pregnant on adolescent girls' beliefs, attitudes, and behavioral intentions toward teen pregnancy. *Journal of Health Communication*, 19(10), 1145-60. doi: 10.1080/10810730.2013.872721
- Auter, P. & Palmgreen, P. (2000). Development and Validation of a Parasocial Interaction Measure: The Audience-Persona Interaction Scale. *Communication Research Reports*, 7(1), 79-89. DOI:10.1080/08824090009388753
- Bandura, A. (2001). Social cognitive theory of mass communication. *Media Psychology*, 3(3) 256-299. doi: 10.1207/S1532785XMEP0303\_03
- Berger, A.A. (1998). *Media Research Techniques*. Thousand Oaks: Sage Publications.
- Bhutta, B. C. (2012). Not by the book: Facebook as a sampling frame. *Sociological Methods Research*, 41(1), 57-88. doi: 10.1177/0049124112440795
- Brault, M. (2012). Americans with Disabilities: 2010. *United States Census Bureau*. Retrieved from <http://www.census.gov/prod/2012pubs/p70-131.pdf>
- Cohen, J. (2005) Defining identification: A Theoretical look at the identification of audiences with media character. *Mass Communication and Society*, 4(3), 245-264. doi:10.1207/S15327825MCS0403\_01
- Creswell, J. (2014). *Research design. Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks: Sage Publications.
- Dong, Q. & Murrillo, A. P. (2005). The impact of television viewing on young adults' stereotypes towards Hispanic Americans. *Human Communication*, 10( 1), 33-44. [http://www.researchgate.net/profile/Marilyn\\_Arthur\\_Murrillo/](http://www.researchgate.net/profile/Marilyn_Arthur_Murrillo/)

publication/228984764\_The\_impact\_of\_television\_viewing\_on\_young\_adults'\_stereotypes\_towards\_Hispanic\_Americans/links/02e7e515d896f65a53000000.pdf

- Evans, J. & Mathur, A. (2005). The value of online surveys. *Internet Research*, 15 (2), 195-219. doi: 10.1108/10662240510590360
- Farnall, O. & Smith, K. (1999). Reactions to people with disabilities: Personal contact versus viewing of specific media portrayals. *Journalism & Mass Communication Quarterly*, 76, 659-672. doi: 10.1177/107769909907600404
- Fujioka, Y. (1999). Television portrayals and African-American stereotypes: Examination of television effects when direct contact is lacking. *Journalism & Mass Communication Quarterly*, 76(1), 52-75. doi: 10.1177/107769909907600105
- Johnson, B. & Faill, D. (2015). *Glee and New Directions for Social Change*. The Netherlands: Sense Publishers.
- Gerbner, G. (1998). Cultivation analysis: An overview. *Mass Communication and Society*, 1(3-4), 175-194. doi: 10.1080/15205436.1998.9677855
- Goldberg, L. (2014, April 4). Glee trims its season amid ratings woes. *The Hollywood Reporter*. Retrieved from <http://www.hollywoodreporter.com/live-feed/glee-trims-season-ratings-woes-693327>
- Haller, B. (2009). Disability and mass communication. *Spectra*, 45(4), 7-11. Retrieved from Communication and Mass Media Complete.
- Harris, R. J. (2013). *A Cognitive psychology of mass communication*. New York: Routledge.

- Hasson, D. (2015). "Handi-Capable"?: An analysis of how disability is represented on *Glee*. In Johnson, B. & Faill, D., *Glee and New Directions for Social Change*, (139-160). The Netherlands: Sense Publishers.
- Hergenrather, K. & Rhodes, S. (2007). Exploring undergraduate student attitudes toward persons with disabilities: Application of the disability social relationship scale. *Rehabilitation Counseling Bulletin*, 50(2), 66-75. doi: 10.1177/00343552070500020501
- Levins, L. (2013). Dancing with myself: Representations of disability within *Glee*. Retrieved from ProQuest, UMI Dissertations Publishing, 2013. 1549688.
- Morgan, M. & Shanahan, J. (2010). The state of cultivation. *Journal of Broadcasting & Electronic Media*, 54(2), 337-355. Doi: 10.1080/08838151003735018
- Nelson, J. (2000). The media role in building the disability community. *Journal of Mass Media Ethics*, 15 (3), 180-193. doi: 10.1207/S15327728JMME1503-4
- Ortiz, M. & Harwood, J. (2007). A social cognitive theory approach to the effects of mediated intergroup contact on intergroup attitudes. *Journal of Broadcasting & Electronic Media*, 51(4), 615-631. doi: 10.1080/08838150701626487
- Passanante,-Elman, J. (2012). "Nothing feels as real": Teen sick-lit, sadness, and the condition of adolescence. *Journal of Literary & Cultural Disability Studies*, 6(2), 175-191. doi:10.3828/jlcds.2012.15
- Punyanunt-Carter, N. (2008). The perceived realism of African American portrayals on television. *Howard Journal of Communications*, 19 (3), 241-257. doi: 10.1080/10646170802218263
- Quick, B. (2009). The effects of viewing Grey's Anatomy on perceptions of doctors and

patient satisfaction. *Journal of Broadcasting & Electronic Media*, 53 (1), 38-55.  
doi:10.1080/08838150802643563

Reysen, S. (2005). Construction of a new scale: The Reysen Likability Scale. *Social Behavior and Personality*, 33(2), 201-208. doi: 10.2224/sbp.2005.33.2.201

Schiappa, E., Gregg, P. & Hewes, D. R. (2006). Can one TV show make a difference? *Journal of Homosexuality*, 51 (4), 15-27. doi:10.1300/J082v51n04\_02

Shanahan, J. & Morgan, M. (1999). *Television and its viewers: Cultivation theory and research*. Cambridge: University Press.

Smedema, S.M., Ebener, D. & Grist-Gordon, V. (2012). The impact of humorous media on attitudes toward persons with disabilities. *Disability & Rehabilitation*, 34(17), 1431-1438. doi: 10.3109/09638288.2011.645109

Sue, V. & Ritter, L. (2012). *Conducting online surveys*. Los Angeles: Sage Publications.

Wasserman, D., Asch, A., Blustein, J. and Putnam, D. (2013). Disability: Definitions, Models, Experience. *The Stanford Encyclopedia of Philosophy*. Retrieved from <http://plato.stanford.edu/archives/fall2013/entries/disability/>

Wimmer, R.D. & Dominick, J.R. (2006). *Mass media research: An Introduction* (8<sup>th</sup> Edition). Belmont, CA: Thomson, Wadsworth.

What is the definition of disability under the ADA?. In ADA National Network online. Retrieved from <https://adata.org/faq/what-definition-disability-under-ada>

## Appendix

### Hypothesis Chart

<p><b>RQ1:</b> What is the relationship between viewing habits of <i>Glee</i>, a show with a central character who used a wheelchair as well as other portrayals of disability, and beliefs about individuals with disability?</p>				
<p><b>HYPOTHESIS 1:</b> There will be a positive relationship between perceptions that Artie and the other characters are positive representations of disability and beliefs about individuals with disability.</p>				
Variable	Survey Questions	Purpose of question	Scale	How will I analyze the results (statistical test)
DV: Beliefs about individuals with disability	Part 1 – GSRGD scale.	Insight into beliefs about disability	Likert 5-point scale: Strongly disagree (1) to Strongly agree (5)	Results will be analyzed using partial correlation (first hand experience as a control variable, gender as control variable)
IV: perceptions about disability portrayal on <i>Glee</i>	Part 2, questions 3-8	Gauge how positive viewers believe disability portrayal on <i>Glee</i>	Likert 5-point scale	
<p><b>HYPOTHESIS 2:</b> There will be a positive relationship between frequency of viewing <i>Glee</i> and beliefs about individuals with disability.</p>				
Variable	Survey Question	Purpose of question	Analysis Method	How will I analyze the results (statistical test)

DV: Beliefs about individuals with disability	Part 1 – GSRGD scale	Insight into beliefs about disability	Likert 5-point scale	Overall score for scale created using the mean of respondents' answers to each item
IV: Viewing frequency of Glee	Part 2, Question, 1, 2	Determine viewing frequency of <i>Glee</i>	Likert 5-point scale: Very infrequent (1) to Extremely frequent (5)	The DV and IV for this hypothesis will use correlation as well as a t-test.
<b>HYPOTHESIS 3:</b> There will be a positive relationship between viewing frequency and beliefs about individuals with disability, made even stronger when subject's report less first-hand experience with individuals with disability.				
<b>Variable</b>	<b>Survey Question</b>	<b>Purpose of question</b>	<b>Analysis Method</b>	<b>How will I analyze the results (statistical test)</b>
DV: Beliefs about individuals with disabilities	Part I – DSRGD Scale	Insight into beliefs about disability	Likert 5-point scale	Overall score for scale created using the mean of respondents' answers to each item
IV 1: Viewing frequency of Glee	Part 2, Question 1, 2	Determine viewing frequency of <i>Glee</i> .	Likert 5-point scale: Very infrequent (1) to Extremely frequent (5)	ANCOVA
IV 2: First-hand experience with disability	Part 4 – Question 1	Determine personal contact with individuals with disability	4-point scale	

<b>HYPOTHESIS 4:</b> There will be a positive relationship between frequency of viewing <i>Glee</i> and identification with Artie .				
<b>Variable</b>	<b>Survey Question</b>	<b>Purpose of question</b>	<b>Analysis Method</b>	<b>How will I analyze the results (statistical test)</b>
DV: Identification with Artie	Part 3 – Identification scale	Insight into respondents' identification with Artie	Likert 5-point scale	Overall score for scale created using the mean of respondents' answers to each item
IV: Viewing frequency of <i>Glee</i>	Part 2, Question, 1, 2	Determine viewing frequency of <i>Glee</i>	Likert 5-point scale: Very infrequent (1) to Extremely frequent (5)	The DV and IV for this hypothesis will use correlation and partial correlation (control for first-hand experience)

## **Survey**

You are being asked to participate in a research study titled Beliefs about Disability as Related to Media Portrayal of Disability. This research is being conducted to study beliefs about individuals with disability. When you are invited to participate in research, you have the right to be informed about the study procedures so that you can decide whether you want to consent to participation. This form may contain words that you do not know. Please ask the researcher to explain any words or information that you do not understand.

You have the right to know what you will be asked to do so that you can decide whether or not to be in the study. Your participation is voluntary. You do not have to be in the study if you do not want to.

### **WHY IS THIS STUDY BEING DONE?**

The purpose of this research is to study beliefs about individuals with disability and how it relates to television viewing habits.

### **HOW MANY PEOPLE WILL BE IN THE STUDY?**

About 300 people will take part in this study nationwide.

### **WHAT AM I BEING ASKED TO DO?**

You will be asked to complete a brief survey about your beliefs about disability as well as media viewing habits.

### **HOW LONG WILL I BE IN THE STUDY?**

This study will take approximately 5-10 minutes to complete. You can stop participating at any time without penalty.

### **WHAT ARE THE BENEFITS OF BEING IN THE STUDY?**

Your participation will benefit research in the field of disabilities and media.

#### WHAT ARE THE RISKS OF BEING IN THE STUDY?

There are no foreseeable risks to your participation in this research.

#### WILL I BE COMPENSATED FOR PARTICIPATING IN THE STUDY?

You will receive 25 cents for taking part in this study through Amazon Mechanical Turk.

#### WHAT ARE MY RIGHTS AS A PARTICIPANT?

Participation in this study is voluntary. You do not have to participate in this study.

You will also be informed of any new information discovered during the course of this study that might influence your health, welfare, or willingness to be in this study.

#### WHO DO I CONTACT IF I HAVE QUESTIONS, CONCERNS, OR COMPLAINTS?

Please contact Emily Lorenz at [peurrunge@Missouri.edu](mailto:peurrunge@Missouri.edu) if you have questions about the research.

#### WHOM DO I CALL IF I HAVE QUESTIONS OR PROBLEMS?

If you have any questions regarding your rights as a participant in this research and/or concerns about the study, or if you feel under any pressure to enroll or to continue to participate in this study, you may contact the University of Missouri Campus Institutional Review Board (which is a group of people who review the research studies to protect participants' rights) at (573) 882-9585 or [umcresearchcirb@missouri.edu](mailto:umcresearchcirb@missouri.edu).

#### SIGNATURES

I have read this consent form and my questions have been answered. Selecting yes below means that I do want to be in the study. I know that I can remove myself from the study at any time without any problems.

- Yes, I voluntarily consent to participate in this research study

- No, I do not consent to participate in this research study

*{Page Break- Section I }*

The following questions use this scale

- Strongly disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly Agree

**Please rate the following items related to your attitudes about individuals with disability and the workplace**

In the workplace, I would have a close relationship with a co-worker who has a disability.  
In the workplace, I would not expect a co-worker with a disability to require extra help and attention that would disrupt normal activities.

In the workplace, I would be comfortable eating lunch with a co-worker who has a disability.

In the workplace, I would be comfortable socializing with a co-worker who has a disability.

In the workplace, I would be surprised if a co-worker with a disability fell behind in his or her work.

**Please rate the following items related to your attitudes about individuals with disability and dating.**

I would have friendship, nothing more, with a person with a disability.

When dating a person with a disability, I would not feel uncomfortable if people would stare.

In dating a person with a disability, I would not worry what others think.

When dating a person with a disability, I would not be embarrassed to help the person eat in public.

When dating a person with a disability, I would be willing to have a sexual relationship with him or her.

When dating a person with a disability, I would not find sex or physical contact with him or her.

**Please rate the following items related to your attitudes about individuals with disability and marriage.**

In considering marriage, I would not exclude a person with a disability.

If I loved a person with a disability, I would try to marry him or her.

A spouse with a disability would not be too dependent on me.

In marriage to a person with a disability, I would feel comfortable making love to my partner.

In marriage to a person with a disability, my partner would be able to earn an adequate income.

In marriage to a person with a disability, a partner would take full responsibility as a parent.

**Approximately what percentage of the American population do you think has a disability of some form, mental or physical?**

- 5 percent
- 10 percent
- 20 percent
- 30 percent

**The percentage of Americans 21-64 who don't have a disability that are employed is 80 percent. What percentage of Americans with a disability ages 21-64 do you think are employed?**

- 20 percent
- 40 percent
- 60 percent
- 80 percent

*{Page Break- Section II – Glee viewing and perception}*

**Have you ever seen the television program Glee?**

- Yes
- No

*{If the answer was no, survey automatically redirected to demographic questions}*

**How often did you watch Glee?**

- Very Infrequent - have seen once or twice
- Somewhat Infrequent - Have seen the program a few times during the past few years
- Somewhat Frequent - Have seen about half of the episodes of Glee
- Frequent - Watched majority of episodes
- Extremely Frequent - Have watched almost all or all episodes

**Do you think Artie is a positive representation of individuals who use wheelchairs?**

- Very negative
- Somewhat negative
- Neither positive nor negative
- Somewhat positive
- Very positive

**Overall, do you think Artie and other characters on Glee are positive representations of disability?**

- Very negative
- Somewhat negative
- Neither positive nor negative

Somewhat positive  
Very positive

***Glee* has encouraged me to think positively about individuals with disability.**

Strongly Disagree  
Disagree  
Neither Agree nor Disagree  
Agree  
Strongly Agree

***Glee* provides a positive view of individuals with disability.**

Strongly Disagree  
Disagree  
Neither Agree nor Disagree  
Agree  
Strongly Agree

***Glee* is an important step forward in television programming because it features individuals with disabilities in major roles.**

Strongly Disagree  
Disagree  
Neither Agree nor Disagree  
Agree  
Strongly Agree

**How has watching *Glee* affected your perception of individuals with disability?**

*{Section Break - Part III Engagement/Identification/Likeability}*

The following questions use this scale

- Strongly disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly Agree

**This section will examine how engaged you are with *Glee*. Please review the following items and rate how much you agree or disagree with each statement.**

While viewing *Glee*, I felt as if I was part of the action.

While viewing *Glee*, I forgot myself and was fully absorbed.

While watching *Glee*, I felt included in the group

The characters on *Glee* had interactions similar to mine with friends.

**This section will examine how closely you identify with the character Artie. Please review the following items and rate how much you agree or disagree with each statement.**

I was able to understand the events in the program in a manner similar to that in which Artie understood them.

I think I have a good understanding of Artie.

I tend to understand the reasons why Artie does what he or she does.

While viewing the show I could feel the emotions Artie portrayed.

During viewing, I felt I could really get inside Artie's head.

At key moments in the show, I felt I knew exactly what Artie was going through

While viewing the program, I wanted Artie to succeed in achieving his goals.

When Artie succeeded I felt joy, but when he failed, I was sad

Artie is likeable

Artie is approachable.

*{Section Break - Part IV Personal Contact /Demographics}*

**Do you personally know any individuals who have a disability?**

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.

I don't have personal contact with anyone who has a disability.

**How much television do you typically watch on an average day?**

Less than one hour

One to two hours

Two to four hours

More than four hours

**What is your gender?**

Male

Female

**How old are you?**

18-25

26-34

35-54

55-64

65 or over

**What is the highest level of education you have completed?**

Less than High School

High School / GED

Some College

2-year College Degree

4-year College Degree

Masters Degree

Doctoral Degree

Professional Degree (JD, MD)

**What is your race?**

White/Caucasian  
African American  
Hispanic  
Asian  
Native American  
Pacific Islander  
Other

**What is your annual income range?**

Below \$20,000  
\$20,000 - \$29,999  
\$30,000 - \$39,999  
\$40,000 - \$49,999  
\$50,000 - \$59,999  
\$60,000 - \$69,999  
\$70,000 - \$79,999  
\$80,000 - \$89,999  
\$90,000 or more