Major research paper: An analysis of social competence portrayed by the autistic character in the television series *The Good Doctor*

Shauna Kluke, 8147034

Department of Communication, University of Ottawa

December 1, 2020

Table of Contents

Abstract

There has been an increase in inclusivity of diverse characters in television and film, including those with disabilities, alternative sexual orientation, and physical health conditions. More specifically, there has been an increase of main characters with autism spectrum disorder (ASD) in television and film, such as Dr. Shaun Murphy in *The Good Doctor*. ASD is characterized by deficits in social communication and in navigating interpersonal relationships. However, Dr. Shaun Murphy is portrayed as highly competent in building and maintaining relationships. Portraying him as socially competent can create false expectations within interpersonal interactions for individuals with ASD and their families. While it is a good step to see more diversity and inclusion in the media, questions have been raised by scholars and disability advocates about the accuracy of these representations. Therefore, the purpose of this study is to determine the accuracy of the representation of ASD in *The Good Doctor* and discuss implications for individuals with ASD and their caregivers and family members. Using the concept of social competence and the social competence scale developed by Merrell and Caldarella (2002), this study examined Dr. Murphy's behaviours in the first season of the television series to explore the accuracy of the representation. The results of the study indicate that the depiction was not an accurate representation of the social competence of individuals with ASD. This inaccuracy is likely to result in larger implications and false expectations of individuals with ASD.

Keywords: social competence, media representation, qualitative, case study, Autism Spectrum Disorder, The Good Doctor

Chapter 1: Introduction

The role that the media plays within our lives and the media's effects, including how we see people, have been vastly studied by many scholars (e.g. Katz 2001; Lasswell, 1970; Scheufele, 1999; Valkenburg et al., 2016). Not only is it important to study the effects of the media, but it is increasingly important to study the ethics of media and their effects on the general population. One area that has been explored by researchers is the stigmatization of individuals with autism spectrum disorder (ASD) (e.g. Kiggins, 2020; Nordahl-Hansen et al., 2018; Orta, 2016; Pinchevski & Peters, 2016; Poe & Moseley, 2016). At the same time, there has been an increase in autistic characters appearing in television series. Many of these depictions focus on the individual with ASD either as an outcast, meaning someone who has been rejected by society or a particular social group or as a "savant," meaning one who has certain abilities that are beyond those of a typical person, like mathematical skills, photographic memory, and rapid calculation ability (Prochnow, 2014; Stern & Barnes, 2019). Neither of these labels are necessarily accurate and, in fact, may stigmatize ASD by reinforcing the perception that individuals with ASD are either an outcast or a savant which could skew people's understanding and knowledge of ASD (Stern & Barnes, 2019). It is important that autistic characters in television series be depicted with accuracy as they neither deserve to be depicted as an outcast nor as a savant as that is not the entire reality of ASD (Prochnow, 2014).

Autism Spectrum Disorder (ASD)

Autism is now defined as a spectrum disorder in the DSM-5, meaning that there is a range of severity of the symptoms and behaviours associated with an ASD diagnosis (Poe & Moseley, 2016; Trevisan et al., 2018). At one end of the spectrum, individuals diagnosed with ASD can lead nearly typical lives with few challenges whereas at the other end of the spectrum there are

individuals who are severely impacted and have many challenges throughout their everyday lives (e.g. nonverbal, disruptive repetitive behaviours, social communication issues, self-injury, etc.) (Poe & Moseley, 2016; Prochnow, 2014). There are a vast number of indicators of ASD when being diagnosed through the DSM-5. The DSM-5 outlines several different areas of difficulty which then are broken down into the ranges of severity (*American Psychiatric Association*, 2013). It is essential to understand that there is a range of severity and the symptoms and behaviours associated with ASD may not be exhibited by every individual diagnosed with ASD.

One of the major issues that an individual with ASD may encounter in their everyday lives is the difficulty of interacting and responding appropriately in social situations. The *American Psychiatric Association*'s (APA) Diagnostic and Statistical Manual of Mental Disorder (DSM-5; 2013) describes how individuals with ASD may behave. Specifically, "people with ASD tend to have communication deficits, such as responding inappropriately in conversations, misreading nonverbal interactions, or having difficulty building friendships appropriate to their age" (p. 50). The DSM-5 states that autism is a spectrum and different individuals will present different behaviours and symptoms. The DSM-5 nevertheless presents the criteria for ASD as follows: "persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history:…deficits in social-emotional reciprocity, deficits in nonverbal communicative behaviours used for social interaction, deficits in developing, maintaining, and understanding relationships" (p. 50). Deficits in "social-emotional reciprocity" can be seen as having difficulty following a normal conversation and sharing emotions and interests or to having difficulty engaging in and maintaining social interactions (*American Psychiatric Association*, 2013, p. 50). Deficits in "nonverbal communicative behaviours used for social interactions" can range from a lack of verbal and nonverbal

communication, little to no eye contact and having difficulty understanding body language and gestures, or a general lack of nonverbal communication including facial expressions (*American Psychiatric Association*, 2013, p. 50). Finally, deficits in "developing, maintaining, and understanding relationships" can range from having a difficulty displaying the proper behaviours for different social situations, a difficulty playing with others or making friends, to a complete lack of interest in socializing and engaging with their peers (*American Psychiatric Association*, 2013, p. 50). Clearly, a significant issue that an individual will face, on any level of the spectrum, is participating in social interactions and all forms of communication. In other words, those with ASD will likely exhibit a lack of social competence.

Measuring Social Competence in ASD

For the purposes of this study, social competence will be defined and operationalized as a "broad construct that may involve judgements about specific social behaviours but is focused primarily on how an individual's adaptive social behaviour characteristics are viewed in general" (Merrell & Caldarella, 2002, pp. 7-8). One of the ways of evaluating social competence is through the use of a scale which measures various aspects of an individual's ability to interact and maintain relationships with their peers (Merrell & Caldarella, 2002). Yager and Iarocci (2013) created the first Multidimensional Social Competence Scale (MSCS). This scale was designed to be completed by caregivers or other individuals who interact with the autistic child throughout daily life. It is designed to understand the individual's behaviours in naturalistic social settings in order to determine the individual's strengths and challenges. This scale consists of seven behavioural families which break down the various behaviours an individual may exhibit. It provides a comprehensive view of various behaviours that determine the level of

social competence for assessing particular populations (i.e. individuals with ASD). The behavioural categories are as follows:

Social motivation includes the behaviours associated with an individual's motivation to interact with other people. This behavioural category measures an individual's ability to initiate interactions with others and take an interest in building friendships and other relationships. Overall, this behavioural category views a person's overall interest in and enjoyment from social interactions (Yager & Iarocci, 2013).

Social inferencing reflects an individual's ability to pick up on various social cues, for example someone's mental state, and respond appropriately in different social situations. This category measures an important skill that looks beyond a person's verbal expressions to assess whether they understand and respond appropriately in various social interactions (Yager & Iarocci, 2013).

Demonstrating empathic concern refers to an individual's ability to recognize and understand distress and provide comfort. This can be measured by an individual's ability to share feelings with others and feel compassion towards someone who is in distress. This relates closely to the social inferencing category, above, which could include an individual's ability to respond appropriately to another person's emotional state (Yager & Iarocci, 2013).

Social knowledge reflects an individual's ability to read social situations and adjust their behaviours accordingly. For example, an individual may act differently toward peers compared to an authority figure. This behavioural category measures an individual's ability to understand various social situations and respond accordingly as well as the ability to identify dangerous or risky situations (Yager & Iarocci, 2013).

Verbal conversation skills reflect an individual's ability to understand and demonstrate the proper rules of verbal conversations. For example, this behavioural category measures an individual's ability to "take turns, to understand how to initiate, join and leave conversations, and to know when to maintain or change conversational topics" (Yager & Iarocci, 2013, p. 633).

Nonverbal conversation skills reflect an individual's ability to display proper physical gestures and facial expressions according to various social situations. For example, this behavioral category measures an individual's understanding of the appropriate time to smile or to convey a look of concern when another individual is in distress (Yager & Iarocci, 2013). This behavioural category also includes other non-speech related aspects of social interactions like volume and prosody (i.e. rhythm and sound).

Emotional regulation reflects the ability to regulate one's emotions. This involves "monitoring, evaluating, and controlling the intensity of one's internal emotional experiences and outward emotion-related behaviour to attain desired affective states" (Yager & Iarocci, 2013, p. 633).

The MSCS includes 105 items that are divided across these seven behavioural categories to measure an individual's social competence. This study will use the seven behavioural families as they have been directly translated into scales that were designed for young adults in Trevisan et al. (2018). Therefore, the primary source for determining the level of social competence of Dr. Shaun Murphy in *The Good Doctor* will be discussed through the seven behavioural families created by Yager and Iarocci (2013).

Media Effects

In the early days of studying mass communication and media effects, Paul Lazarsfeld explored these subjects through the lens of sociology (Katz, 2001). Lazarsfeld focused narrowly

on the effects of media with his limited effects theory which looked at media (e.g. campaigns) as having narrow or limited effects on the greater population (Katz, 2001). At the time it was believed by Lazarsfeld and his fellow scholars that media only had a limited effect on the audience; however later scholars (e.g. Katz 2001; Scheufele, 1999; Valkenburg et al., 2016) continued the study of media effects and theorized that there was a greater effect caused by the media than Lazarsfeld had first anticipated.

The study of media effects is often brought back to the magic bullet theory or rather the hypodermic effects theory (Lasswell, 1970). This theory came about between the 1930s and 1950s when propaganda was being used by governments. For instance, the use of propaganda was used by governments and people of power during wartime in order to enlist soldiers and to persuade the public to support a specific side of the battle. The magic bullet theory views propaganda as a medium to manipulate the public and "inject" them with a certain opinion, knowledge, or behaviour. Katz (2001) later moved forward from the theories and ideas of Lazarsfeld to include the idea of media effects theory and how to adapt it to include media used to encourage change as well as media used to maintain the status quo.

Rather than the narrow view of Lazarsfeld's limited effects theory, Katz (2001) amends the theories of Lazarfeld in order to include a broader understanding of media effects. For example, Katz (2001) suggests that effects should not be limited to change, but should include "non-change" as a serious consequence of mass communication because if the media is used to reinforce the status quo, and stereotypical views of different populations of subjects, then non-change can be the worst consequence. In other words, if the media continue to reinforce stereotypes and the status quo then society will not make any advances.

Media effects theory has been studied by many scholars who have sought to understand how mass media can affect individuals and society as a whole. According to Katz (2001), "mass media can affect knowledge, attitudes, opinions, and behaviour of individuals. These effects can be immediate or delayed, of short duration or long-lasting. Effects upon individuals might slowly become transformed into institutional changes" (p. 274). Therefore, mass media can have a significant effect on individuals and society to a point where attitudes, knowledge, opinions, and behaviours may be altered. This is important for work in communication and media studies as it is essential to understand the ways individuals can be affected by the media that they consume. According to Katz (2001), "mass media tend to reinforce the status quo rather than influence change" (p. 275). The idea is that not only can media lead individuals to change but they can also affect them in such a way that it produces no change, leading to the reinforcement of the status quo and stereotypes.

It is important to understand that the effects caused by the media are complex and everchanging. There are indirect effects, which may influence the public or the audience to change or reinforce their attitudes, behaviours or knowledge (Valkenburg et al., 2016). Valkenburg et al. (2016) argue that the area of mediated health communication and health behaviour can especially have an effect on certain beliefs and attitudes. Therefore, for the purpose of this study it is important to understand that media can have both direct and indirect effects on the audience. In this case, *The Good Doctor* television series will be explored in terms of the accuracy of its representation of ASD and the related effects and implications of including the representation of ASD on television.

The Good Doctor

The Good Doctor is a relatively new television drama series that takes place in a hospital following the lives of the surgeons who work there. Dr. Shaun Murphy is the main character in the series as he is a young surgeon with ASD and savant syndrome. Throughout the first season, Dr. Murphy relocates from a small town to San Jose, California where he starts his surgical residency with help from the president of the hospital, Dr. Glassman, who has known Shaun for most of his teenage and adult life. Dr. Murphy has an extraordinary medical gift which allows him to save lives even though his colleagues and superiors often challenge him. Dr. Murphy has some difficulty connecting with others in the beginning due to their skepticism of him and his place within the St. Bonaventure hospital; however, he proves his worth throughout the first season. Dr. Murphy diagnoses and saves many patients and slowly gains the trust and confidence of his colleagues and superiors. He meets many new people and forms connections with them throughout the first season.

The Good Doctor joins other popular doctor drama series. There has been a large audience for shows such as *Grey's Anatomy* and *House*. *The Good Doctor* is a twist on a South Korean show with the same name that was sold and produced by Sony Pictures Television (source). The show was renewed after the first season despite some criticism, and Freddy Highmore (the actor who plays Shaun Murphy) was applauded for his performance. This television show is one of the first of its kind that explicitly includes an individual with ASD in a medical role; however, it is not the first instance of a television doctor having savant abilities (e.g. *Grey's Anatomy* and *House*).

Throughout this case study, I analyzed recent depictions of ASD on television to determine whether or not they are accurate. After thoroughly researching the indicators of social competence, I watched the good doctor in order to in order to assess whether the television show

accurately portrays the social competence of an autistic individual. I then considered the implications or consequences of these depictions. Using the concept of social competence is appropriate for determining whether the presentations are accurate or inaccurate in depicting ASD in the television show because this concept is directly linked to the three social communication deficits that are outlined in the DSM-5. These three social communication deficits are "deficits in social-emotional reciprocity, deficits in nonverbal communicative behaviours used for social interaction, deficits in developing, maintaining, and understanding relationships (*American Psychiatric Association*, 2013, p. 50). The purpose of using the concept of social competence is to analyze the character through the lens of the scale, which can be conducted by someone other than a clinician, to determine the accuracy of the portrayal of ASD. The following research questions are thus posed:

RQ1: In which ways does the main character in *The Good Doctor* accurately portrays the social competence of a person with ASD?

RQ2: What are the implications of these representations for individuals with ASD and their families?

Chapter 2: Literature review

Inclusivity on Television

It is important to understand that there are stereotypical ways of portraying all types of individuals on television, and the inclusion of different groups has not and will not always be an accurate portrayal. The result can be significant amounts of harm to individuals who are being misrepresented or underrepresented. Media scholars argue that the media are an incredible priming agent, which can influence social judgement (Ford, 1997).

There has been growing demand by viewers for inclusivity of various groups in television and on other media platforms. For example, there has been an increase in demand for racial (Ford, 1997), LGBTQ+ (Monaghan, 2020), and disability inclusion and representation (Mantilla & Goggin, 2020). The inclusivity of a variety of characters in television represents a changing and evolving society, which will ideally become more tolerant of differences in people. It is important to study the evolving representation and inclusivity to understand the ways media has adapted and included these individuals. Often, these individuals are misrepresented or underrepresented, which can lead to harmful outcomes and stereotypes (Campbell & Hoem, 2001; Crewe, 2015; Ford 1997; Tyree, 2011).

Race

Throughout the evolution of television there has been an increasing racial diversity in the characters in television series. For example, African Americans as well other minority groups began to appear on prime-time television more frequently in the 1970s and 1980s (Ford, 1997). However, according to Ford (1997) the roles being played by African Americans were often stereotypical and extremely limited in nature. For example, in a comedy show, an African American was more likely than a Caucasian to be portrayed in menial occupations (Ford, 1997).

Moreover, Ford (1997) points out that the use of humour, in the context of African American portrayals on a comedy television show, often resulted in Caucasians viewing African Americans in this stereotypical manner being that they solely occupy menial occupations.

More recently, there has been significant pressure from the public, activist groups outside of the media industry, and professional groups within the industry for a more positive portrayal of African Americans on television (Tosi, 2011). Not only has there been a long fight for simple representation and inclusion of African Americans on television and other media, but scholars argue that there is an even more significant fight against stereotypical representations of African Americans (e.g. Albert, 2008; Dixon, 2000; Ford, 1997; Rada, 2000; Tosi, 2011). Earlier research has shown that the previous portrayals of African Americans in the media affirmed other individuals' racial attitudes towards this group through the use of stereotypes and one-sided depictions (e.g. Coover, 2001; Ford, 1997; Rada, 2000; Taylor, 1983; Tosi, 2011).

LGBTQ+

To switch gears to a different group that has been recently included in television, let us now explore the representation of members of the LGBTQ+ community. Monaghan (2020) argues that LGBTQ+ individuals have been severely underrepresented in television drama series. This study was conducted in Australia; however, the researchers draw on the research done in the US and UK. This study ultimately found that there has been an underrepresentation specifically of lesbian or bisexual women compared to gay or bisexual men (Monaghan, 2020). Further, this author suggests, LGBTQ+ individuals have been stereotyped in television roles and presented in a negative light. Research on the roles that gay men and women often play on television reinforce the stereotypical gender roles (Ford, 1997). For example, throughout the 1970s and

1980s gay and bisexual men were often presented as effeminate, victims of violent crimes, friendly sidekicks, or villains (Monaghan, 2020).

Indeed, there has been an increase in the inclusion of members of the LGBTQ+ community in the media. Although the LGBTQ+ representations have come a long way, there are still many obstacles to overcome when representing these individuals accurately and fully (e.g. Crewe, 2015; Mayo, 2017; Mcinroy & Craig, 2015; Mcinroy & Craig, 2017; Waggoner, 2017). Studies of the stereotypical representations of the LGBTQ+ community show the need for change within various media platforms (Crewe, 2015).

Disabilities

Mantilla and Goggin (2020) state "disability is recognised as a key element in the dynamics of inclusion, exclusion and representation in society, in which media plays an intriguing and crucial part" (p. 39). These authors go on to suggest that "there is little research on disability in television, and even less on television history – although, thankfully, important work is emerging" (p. 39). In other words, the inclusion of disabilities is emerging in the media as a result of the increasing demand for inclusion of all people. There has been an increase in research on the representation of various disabilities in television and other media, which helps us to understand how disabilities are being represented. They will thus pave the way for future research of the evolving representations of various disabilities (e.g. Burns, 2016; Devotta et al., 2013; Ellis, 2019; Kiggins, 2020; Montgomerie, 2010; Zhang & Haller, 2013). For example, Poe and Moseley (2016) argue that the is increased representation of disabilities within television shows and the inclusion of characters with disabilities has increased as well (Poe & Moseley, 2016).

Media Representation of ASD

Poe and Moseley (2016) argue that while the inclusion of ASD characters specifically in television has grown, they argue that this representation has framed ASD as a disease and as something that can be prevented or even cured. Many studies have analyzed the representation of ASD in television and film (e.g. Kiggins, 2020; Orta, 2016; Pinchevski & Peters, 2016; Poe & Moseley, 2016; Prochnow, 2014; Stern & Barnes, 2019; Young, 2012; Zuger, 2018) and most have concluded that the majority of the portrayals of ASD are stereotypical in nature. It is very difficult to depict the range of characteristics of individuals with ASD through television and movie characters as the spectrum is so broad (Prochnow, 2014). Partly for that reason scholars have raised concerns about the accuracy of these representations (Prochnow, 2014). For example, an early representation of ASD in the media appeared in the film *Rain Man* where one of the main characters in this film was an autistic savant (Pinchevski & Peters, 2016). However, Prochnow (2014) claims that *Rain Man,* as well as other film examples, do not present a severely autistic character because they often omit various behaviours and symptoms of ASD. For example, these representations show little range in characters' behaviors, mannerisms, and intellectual levels. Instead , they more often portray high functioning individuals, who do not fairly represent the majority of individuals who are diagnosed with ASD.

Orta (2016), in her study of media portrayals of teens with ASD, argues that the gap in television representation of teenagers with autism does not provide audiences with knowledge on the topic, leading to real-world social isolation of teenagers with the condition. As such, accurate representation of people with autism could be important in encouraging positive relationships in real-world scenarios. Orta (2016) found that stereotypical representations of ASD characters in television shows results in a presentation of a lack of agency and lack of independence. These representations are often negative and can have long lasting negative effects on people's ideas

about what ASD is (Orta, 2016). Similarly, other research has argued that there is a fine line between beneficial and detrimental portrayals in the media (Nordahl-Hansen et al., 2018). These portrayals often result in the strengthening of stereotypes, including that the majority of individual's with ASD also have savant syndrome.

These portrayals have the potential to affect general knowledge about disabilities and skew individuals' views about aspects of disability, including ASD (Worrell, 2013). Overall, the representation of disabilities is both limited within the sphere of television and often negative (Worrell, 2013). There are many ethical principles to be taken into consideration with these representations, especially if information is misleading or inaccurate. The idea of presenting individuals with some sort of heroic or superhuman ability can be detrimental and diminish those who live with that disability in the real world (Worrell, 2013). Finally, the media has a great deal of power in influencing and shaping the lives and minds of individuals and it is important to portray these individuals accurately to reduce the amount of harm done to them (Worrell, 2013).

Savantism and ASD

One of the major misconceptions that could come from portrayals in television and film is that every person with ASD has savantism. Savantism or savant syndrome is characterized by an individual possessing supernatural abilities. Prochnow (2014) states that characters with savant syndrome are often portrayed as "out of this world" or magical and that hese abilities come from their diagnosis with ASD. Prochnow (2014) argues that rather than a negative representation of a character's diagnosis of ASD, this diagnosis makes them more special and more interesting than the average person. Prochnow (2014) defines the savant as "a person with less-than-average intelligence levels that somehow has certain abilities beyond what is normal for even a typical, average-intelligent person" (p. 137). She goes on to state that "although being a savant is a real,

possible aspect of having autism, it is not the norm (p. 137). In other words, realistically most individuals who have ASD are not savants (Nordahl-Hansen et al., 2018). As examples of portrayals of savants in the media, both the movie *Rain Man* and the television show *The Good Doctor* over-represent these autistic-savant characters and these savant abilities, which can result in a bias and false expectations about the reality of ASD (Nordahl-Hansen et al., 2018).

Furthermore, *Rain Man* popularized autism and the narrative of understanding the autistic mind as a computer. Today, autism is viewed as genetic rather than depicted as a computer's systemic wiring and processing. Nevertheless, the stereotypical autistic person is an ideal fit for the technology sector, given his or her high functioning "systemizer" brain, meaning exploring and constructing systems (Pinchevski & Peters, 2016). Specifically, the representation of ASD in *Rain Man* demonstrated the autistic character as processing information in a different way which provides them with the ideal opportunity to work in various technological fields. Much like *Rain* Man, Dr. Shaun Murphy in the television show *The Good Doctor* is presented primarily as a magical savant who has abilities that are not human. For example, he has the ability to look at patients and diagnose them based on sight alone. He has a photographic memory which allows him to draw on the information that he has read before. Scholars who have studied this television series often find that the savant-like abilities that Dr. Murphy presents are unrealistic and inaccurate because individuals with ASD rarely have savant abilities (Zuger, 2018). Dr. Shaun Murphy has incredible intellectual abilities such as outstanding mathematical skills, a photographic memory, and being able to "see" 3D images of human anatomy. Zuger (2018), in her study of *The Good Doctor,* claims that this television show sacrifices an accurate representation for the sake of entertaining the audience.

Social Competence

The conceptual framework used for the study is social competence. In general, social competence as having been defined by many scholars and researchers with varying components. Social competence relates to a person's ability or inability to interact appropriately in social interactions (Blumberg et al., 2008). For the purpose of this study social competence will be defined and operationalized as a "broad construct that may involve judgements about specific social behaviours but is focused primarily on how an individual's adaptive social behaviour characteristics are viewed in general" (Merrell and Caldarella, 2002, pp. 7-8).

The research questions outlined in the introduction clearly relate to the concept of social competence because, as seen in the literature, individuals with ASD typically have social deficits and therefore it is important to understand whether that aspect of ASD is being portrayed accurately in the media. Most literature outlines how these portrayals are often negative or overly positive and that they are an extremely skewed view of the disorder. For example, some of the literature focuses on the individual's savant abilities even though these abilities are not reality for many individuals with ASD (Poe & Moseley, 2016). Therefore, I argue that one area of ASD that has not been studied within these portrayals is the character's ability to maintain relationships and interact with people effectively. I believe that it is important to study this in order to understand what kind of expectations could arise as a result of the portrayals.

ASD and Social Competence

Many scholars have researched the link between ASD and social competence (e.g. Kuan-Hung, 2018; Paymon 2019; Rajska, 2009; Szidon & Hedges, 2015). As discussed in the introduction chapter, the DSM-5 outlines one of the main deficits associated with ASD as social communication. In other words, individuals with ASD often lack knowledge of and the ability to

engage in effective social interactions and thus have severe difficulty when interacting with others.

Kuan-Hung (2018) conducted a study to better understand the level of social competence of individuals with ASD, which has resulted in a consensus that these individuals tend to have severe social deficits in all age brackets. Rajska (2009) states that the social competence deficits include lack of eye contact, lack of ability to initiate social interactions, and poor interpretation of social cues. The researcher also states that people with autism often have a particularly hard time understanding the emotions of others and being able to respond appropriately (Rajska, 2009). An inability to interact socially prevents individuals with autism from understanding those around them (Semrud-Clikeman, 2007). These deficits include lack of social-emotional reciprocity, inappropriate nonverbal communicative behaviours, and problems with developing, maintaining and understanding relationships. Other scholars have argued that children with ASD have deficits in attention, responsivity to social bids, social initiations, and the use of gestures for communication (Paymon, 2019). These social deficits could prevent individuals with ASD from enjoying positive relationships including dating relationships and friendships; therefore, these individuals could benefit from learning more about how to successfully and safely form relationships (Szidon & Hedges, 2015).

Other scholars have conducted research to better understand the fixation patterns of autistic individuals within social situations. For example, Klin et al. (2002) found that typically adolescents and young adult males with ASD spent the most time fixating on the mouth area rather than making eye contact or body gestures. This generally relates to social competence because it is necessary for an individual to be able to read and display nonverbal communication to succeed in social situations. Scholars have also found that social competence and academic

performance go hand-in-hand and must be continuously developed for the individual to be successful in social and academic situations (Orloff, 2009).

A study by Romero et al. (2018) showed that the social competence displayed by high functioning autistic individuals was only slightly higher than those with lower functioning ASD. High functioning ASD on the DSM-5 scale of severity is based on the level of support that is needed. There are three different levels of severity depending on the level of support required - with the most severe requiring very substantial support, the second level requiring substantial support, and the lowest level requiring support (*American Psychiatric Association*, 2013, p. 50). The support indicated in the DSM-5 relates to an individual's social communication deficits, as well as restricted and repetitive behaviours (*American Psychiatric Association*, 2013, p. 50). These categories of severity range from individuals who would have a very difficult time in social situations due to a severe deficit in both verbal and nonverbal communication to those with less difficulty. Someone who is placed in the category of requiring support (high functioning and low severity) would typically have some deficits in social communication but would be able to speak in full sentences and have some, but limited, interactions with others (*American Psychiatric Association*, 2013, p. 50).

Romero (2018) examined children with high functioning ASD in order to determine the deficits that even someone with high functioning ASD may display in social interactions. The purpose of this study was to understand how a child with high functioning ASD interacts with clinicians in terms of body movements and other non-literal aspects of social interactions. The researchers concluded that the children did, in fact, imitate the complex body movements of the clinician. The researchers argue that there is some degree of social competence being displayed

by children with high functioning ASD, which paves the road for further investigation in future studies (Romero et al., 2018).

Chapter 3: Research Design and Methodology

This research project is designed as a case study to determine the accuracy of the portrayal of the autistic character Shaun Murphy in the television show *The Good Doctor*. This case study permits us to better understand the accuracy of the portrayal of ASD and to understand the potential implications as a result. Case studies are primarily used to look at one particular subject in depth, which is essence of this research project (Hamel et al., 1993). The purpose of using a case study for this research paper is to better understand the interpretation the television industry takes on the topic of ASD. This television show is different than other doctor-related drama shows because it includes an autistic doctor as its main character. Therefore, the purpose of this paper is to understand the accuracy of this certain representation as it is widely viewed by the public and can have an influence on the public's view of ASD.

Case study

For the purpose of this research project, designing it as a case study is the most effective and efficient way to observe and analyze *The Good Doctor*. According to Hamel et al. (1993) a case study is defined as "giving special attention to totalizing in the observation, reconstruction and analysis of the cases under study (Zonabend, 1992, p. 52)'. Accordingly, a case study is an in-depth study of the cases under consideration, and this depth has become another feature of the case study approach" (p. 2). For the purpose of this study, it is important to look in depth at the show in order to properly determine the accuracy of the representation of ASD. It is important to analyze the accuracy through the use of a case study because it gives us a look into not only the accuracy of the portrayal of ASD through the lens of social competence, but it helps to theorize the implications of the representation. The case study might be a design that is less generalizable

to a larger population, but it is the most effective way to determine the accuracy of a highly viewed television show.

Methodology

This research project approached the representation of ASD on television through a case study of the television show *The Good Doctor.* Each episode of the first season of the show was thoroughly examined for situations, language, and nonverbal communication that fit within each family of social competence outlined by Yager and Iarocci (2013). Each episode was examined and recorded through noting each interaction, situation, and scene that involved Dr. Shaun Murphy, the doctor with ASD in the television show.

The first step of the case study was to correspond actions, words, and abilities portrayed in the television show by the autistic character to each of the seven behavioural families (See Chapter 1 for the detailed definition of the behavioural families). For each behavioural family, Yager and Iarocci (2013) identified specific behaviours that indicate different levels of social competence (see Appendix for the full list). Social competence behaviours can reflect high social competence, meaning that the behaviour displayed indicates that the individual is highly socially competent. Low social competence, on the other hand, means that the behaviours displayed indicate that the individual is not socially competent. Samples of high and low social competence behaviours associated with each behavioural family are as follows:

Social motivation:

Low: the individual prefers to spend time alone, stays in the background in group social situations (Yager & Iarocci, 2013).

High: initiates get togethers with others (Yager & Iarocci, 2013)

Social inferencing:

Low: not understanding subtle hints or requests, unable to understand sarcasm, easily manipulated without recognizing it (Yager & Iarocci, 2013).

High: ability to understand mental states, whether the individual recognizes when he is being manipulated, picks up subtle hints or indirect requests, or understands when people are being sarcastic (Yager & Iarocci, 2013).

Demonstrating empathic concern:

Low: unable to express concern or identify when they have hurt someone (Yager & Iarocci, 2013).

High: expressing concern when others are hurt or distressed, trying to cheer people up, and apologizing after hurting someone (Yager & Iarocci, 2013).

Social knowledge:

Low: unable to differentiate authority figures from others, acting out or inappropriately in public spaces (Yager & Iarocci, 2013).

High: being more polite with authority figures and acting appropriately in public spaces and understanding relationships like what constitutes a friend and having reasonable expectations of friends (Yager & Iarocci, 2013).

Verbal communication skills:

Low: talking at people, interrupting people while they are talking (Yager & Iarocci, 2013).

High: joining conversations without interrupting, shifting conversations to topics of interest, and dominating conversations (Yager & Iarocci, 2013).

Nonverbal communication skills:

Low: pointing at people, unable to make eye contact, little to no facial expressions or social smiling (Yager & Iarocci, 2013).

High: displays appropriate gestures, makes eye contact, appropriate facial expressions/social smiling, and tone of voice (Yager & Iarocci, 2013).

Emotional regulation:

Low: acting out when angry or upset, tendency to have meltdowns, easily frustrated (Yager & Iarocci, 2013).

High: acting appropriately in public spaces, frustration that does not lead to meltdowns, does not act out when angry or upset (Yager & Iarocci, 2013).

How the case study was conducted

The following steps were taken to conduct the case study: First, I watched each episode while taking detailed notes on each scene that Dr. Murphy was in. From there, I categorized his behaviours according to the social competence behavioural families using the Multidimensional social competence scale (MSCS) as a guide (Yager & Iarocci, 2013). After categorizing Dr. Murphy's behaviours within the behavioural families, I was able to determine whether his behaviours displayed high or low social competence, again using MSCS. After this I assessed whether this portrayal was a more or less accurate portrayal of social competence that a typical person with high functioning ASD would portray according to the DSM-5 and previous research on social competence of people with ASD.

This analysis is an effective way to understand both the accuracy of the portrayal of ASD and the larger social implications of this particular representation of ASD. It is important to not only understand the accuracy of this portrayal but also outline some of the possible consequences of portraying individuals with ASD on drama television shows.

Chapter 4: Results and Discussion

This study used the multidimensional social competence scale proposed by Yager and Iarocci (2013) was used to measure Dr. Murphy's ability to navigate different social contexts. The measure of social competence is multifaceted and is intended to be used to score an individual with ASD in regard to their ability to navigate various social situations. Yager and Iarocci (2013) focus on "identifying and measuring a representative sampling of abilities/behaviours at the social motivation/skills level" (p. 633). Yager and Iarocci (2013) outlined seven behavioural families that are important in measuring social skills and motivation being, "social motivation, social inferencing, demonstrating empathic concern, social knowledge, verbal conversation skills, nonverbal sending skills, and emotion regulation" (p. 633). These behavioural families are the foundation of understanding and measuring social competence and the abilities that are presented by individuals with ASD, therefore making it useful to measure the abilities of Dr. Murphy in *The Good Doctor.* Show what it will look like. Definition, examples from data, and what it means

Social motivation is defined as behaviours associated with an individual's motivation to interact with other people (Yager & Iarocci, 2013). This behavioural category measures an individual's ability to initiate interactions with others and to take an interest in building friendships and other relationships. Overall, this behavioural category describes a person's overall interest and enjoyment from social interactions (Yager & Iarocci, 2013). For example, a person with low social motivation prefers to spend time alone and stay in the background in group social situations while an individual with a higher social motivation initiates get-togethers with others and participates in social situations. Throughout the first season of the television show, it was evident based on this assessment that the autistic main character quite frequently

initiated social situations with others and regularly interacted with others. There are a rare number of situations in which the character does not participate in interactions with patients, colleagues, authorities, strangers, etc. The following are only some of the numerous scenes in which Dr. Murphy demonstrates a high amount of social motivation.

Example 1: In the first season of *The Good* Doctor Dr. Shaun Murphy starts his surgical residency at the St. Bonaventure hospital in San Jose. The primary reason for ending up at this particular hospital is because of his connection with the president of the hospital, Dr. Glassman. He met Dr. Glassman as a teenager when he and his late brother ran away from their abusive parents. After his brother passed away, he was primarily watched over by Dr. Glassman. Dr. Murphy was quite comfortable around Dr. Glassman and connected with him very easily. He was seen having breakfast with him, talking to him about his life, and getting along easily with him. The point in understanding the relationship between Dr. Murphy and Dr. Glassman is to illustrate one of the several ways that Dr. Murphy demonstrates a high degree of social motivation. He often engages with Dr. Glassman throughout the first season of the show and he was able to continue his connection with him.

Throughout the first season, Dr. Murphy spends much of his time with Dr. Glassman outside of the hospital. For example, when he was trying to find his screwdriver to fix his dripping faucet in his apartment, he called Dr. Glassman to come and help him. When he told Dr. Glassman that he wanted to buy a television for his apartment they ended up going to the store, sitting in recliner chairs and watching football in the store while bonding over their love for pro football. Later in the season, Dr. Glassman was diagnosed with cancer and Dr. Murphy spent a long while trying to find a cure for his specific type of cancer, while also trying to find out if the doctor could have misdiagnosed him. Dr. Murphy clearly put a lot of time and effort into

building his relationship with Dr. Glassman. He clearly values his company and friendship. According to the definition of social motivation and the examples given earlier, it is clear that in regard to his relationship with Dr. Glassman, Dr. Murphy is highly socially motivated and often initiates his conversations and interactions with Dr. Glassman.

Example 2: Other people with whom Dr. Murphy makes connections throughout the first season of *The Good Doctor* are his neighbours. The first neighbour with whom he became friends was Lea and he established a strong relationship with her before she moved away. For example, when he first meets her, she asks to borrow triple A batteries and their friendship blooms from there. He had not introduced himself at first when she asked to borrow the batteries, though he stopped by later on to introduce himself and to get the batteries that she borrowed back. After he got in an argument with Dr. Glassman about not wanting a personal support worker (PSW) to help him around his apartment, Dr. Murphy went to Lea's apartment and sought her help to avoid Dr. Glassman. Dr. Murphy did not want a PSW to help him in any way because he wanted to be independent and he did not feel comfortable with a stranger being in his house with him. Dr. Glassman was concerned that he could not help Dr. Murphy enough because he did not know how to help him. Dr. Glassman thought that a PSW would be good for Dr. Murphy to have to both help him as well as to keep him company at home. After his disagreement with Dr. Glassman, Lea and Shaun ended up going on a road trip together and he and Lea became much closer, sang karaoke together, drank tequila, and shared a kiss. It is clear that Dr. Murphy had established a connection with Lea from the moment they met, and it only grew stronger as the season went on. It is evident that his emotional connection to Lea was stronger than just a friendship and he often mentions how much he enjoys Lea's company. He was even willing to move to the same city that she decided to move to.

The neighbour who moved into Lea's apartment after she moved out was a man named Kenny. Dr. Murphy connects with Kenny when he is walking by the apartment and stops to knock on the door to say hello. Kenny answers and Dr. Murphy introduces himself. After this initial introduction, Kenny appears to be quite comfortable with Shaun and they often see each other whenever Shaun is home. In one scene, Kenny brought them Chinese food and they played video games together and, in another, Shaun picked up a pizza after work and went to ask him to hangout. Dr. Murphy also referred to Kenny as his friend to Dr. Glassman. In sum, it is clear that Dr. Murphy makes connections with people outside of work easily and puts in a considerable amount of effort into building these relationships and initiating hangouts in private and social settings.

Example 3: Not only does Dr. Murphy establish relationships easily outside of work, but he was able to make connections with colleagues at the hospital. For example, one of his first friends at the hospital is Dr. Claire Brown. She is a fellow surgical resident who often works alongside Dr. Murphy. They establish a connection in the very first episode of the season. When Dr. Murphy shows up to the hospital on his first day of his residency, he brings in a young boy who has suffered from an injury outside of the hospital and where Dr. Murphy treats him in the field. He noticed a slight change in his heart rhythm, but no one believed him because it was a small difference. This led the doctors to question him and not trust what he said as they had not previously met him. Ultimately, however, he turns out to be right and the child's life is saved. He later interacts with Claire several more times throughout the first episode and once he was able to provide the doctors with evidence that led to him saving the child's life, Claire decides to befriend Dr. Murphy because of his impressive skill. Dr. Murphy slowly becomes more comfortable with Dr. Brown, goes to her for advice and treats her as not only as a colleague but

as a friend. For example, after he took an interest in Lea, his neighbour, Dr. Murphy confided in Dr. Brown that he had met a girl and that he liked her. Dr. Murphy then began to take interest in identifying various signs of flirting. Another colleague, Carly, who is the pathologist in the hospital, also becomes friends with Shaun. They only interact a few times in the first season, but they become more familiar and comfortable around each other. These examples illustrate that he is highly socially motivated and understands the boundaries of friendships.

Social inferencing is defined as an individual's ability to pick up on various social cues (for example, someone's mental state) and to respond appropriately in different social situations. This category measures an important skill that looks beyond a person's verbal expressions to assess whether they understand and respond appropriately in various social interactions (Yager & Iarocci, 2013). For example, a person with a high social inferencing ability would demonstrate understanding of other individual's mental state, would have a high radar for recognizing when he or she is being manipulated, demonstrates the ability to pick up subtle hints or indirect requests, as well as demonstrates the ability to understand when people are being sarcastic. Throughout the first season of *The Good Doctor* there are many prime examples that illustrate Dr. Murphy's social inferencing abilities. Dr. Murphy is mostly able to detect mental states and act accordingly, although his blunt behaviour often leads him to say things to patients that might frighten them (i.e. the risks of the surgery, malignant diagnosis without much emotion, etc.). Overall, the general take away from the first season of the show is that, although Dr. Murphy starts off less able to pick up on social cues, he quickly adapts and learns from his superiors, colleagues, and patients.

Example 1: In the first season of *The Good Doctor,* Dr. Murphy demonstrates a growing social inferencing capability. For instance, when Claire tries to befriend him in the first episode,

he asks her why she decided to approach him and be nice to him after they had saved the patient rather than from the very beginning. Dr. Murphy takes this as a sign that she is manipulating him because she ignored him at first. This particular instance provides us with an understanding of Dr. Murphy's ability to infer when he is being manipulated. He was able to clearly understand that because Claire ignored him at first, she did not know who he was, only took a particular interest in him after she saw his incredible medical abilities.

Example 2: Dr. Murphy was not fully aware that people would not take a liking to his being a resident in the hospital, though he slowly learned that he was going to have to earn their respect and confidence. For example, Dr. Melendez, Dr. Murphy's direct supervisor, assigned him to do scut work, meaning the jobs that no one else wants to do. At first, however, he was not aware that doing scut work was not a good thing and he told Dr. Melendez that he assumes that he is assigning it to him for a reason and that he looks forward to learning from his experiences. Dr. Murphy takes many things that people say at face value, though he quickly learns to better understand and infer from people's actions and words. For instance, toward the end of the season Dr. Murphy and Dr. Kalu, a fellow resident, are assigned to a case with Dr. Andrews, a chief physician. Dr. Murphy questions why they are being assigned to a boring case and then asks if he was being punished for previously leaving the hospital for two days without anyone being aware of his absence. Therefore, it is clear that Dr. Murphy, though naïve in the beginning, was quickly able to learn social inferencing skills and was better equipped with the tools to understand when others are being passive aggressive and sarcastic.

In the first few episodes it is clear that he does not always detect sarcasm. For example, early in the show Dr. Murphy's supervisor, Dr. Melendez, says, "We made a real good choice hiring you" and Dr. Murphy replies "thank you" as if the individual was sincerely

complimenting him, clearly displaying that he did not detect the sarcasm in the individual's voice. However, he does catch on and is able to pick up on those social cues further into the first season. Specifically, after this interaction Dr. Murphy became aware that people often use sarcasm even though he does not understand why, and he is able to infer when someone may be using sarcasm in a conversation with him. For example, in one scene Dr. Murphy turns up for work on time and says good morning to Dr. Melendez and his colleagues. Dr. Melendez sarcastically replies, "Right on time. What, did you sleep here or use a teleportation device?" Dr. Murphy responded with a deadpan expression, "I used a teleportation device. Nonsensical questions usually imply sarcasm, which I've found people often answer sarcastically." Dr. Murphy had learned from previous encounters of sarcasm and put a rule in place that would serve him well — nonsense questions often imply sarcasm. Therefore, Dr. Murphy uses his social inferencing skills when he was able to draw a conclusion and associate nonsense questions with sarcasm. This inference greatly helped him in determining when people are being sarcastic. This is more than the typical ability of a person with high functioning ASD. It is not as simple as the show portrays it to be.

Demonstrating empathic concern is the ability to understand when another person is in distress and having the ability to provide them comfort in difficult times or to console them when appropriate (Yager & Iarocci, 2013). For example, expressing concern when others are hurt or distressed, trying to cheer people up, and apologizing after hurting someone would indicate empathic concern. This can be measured by an individual's ability to share feelings with others and feel compassion towards someone who is in distress. This relates closely to the social inferencing category, above, which could include an individual's ability to respond appropriately to another person's emotional state. As can be imagined in a television show set in a hospital

setting, there are many opportunities for doctors to demonstrate empathic concern. Throughout the first season of the show, Dr. Murphy demonstrates both his ability as well as inability to demonstrate empathic concern. As previously stated, he does not pick up on all social cues in the beginning of the season, but quickly learns to navigate other's emotions and is able to better demonstrate empathy towards patients. Dr. Murphy is often very blunt and says things without thinking of the consequences (i.e. the patient's feelings). For example, in the second episode, Dr. Murphy's first day as a surgical resident, he views a patient along with Dr. Melendez and another surgical resident and this is the audience's first view of Dr. Murphy's incredible ability to visualize the human body in 3D and quickly provide a diagnosis. In this scene, he is visualizing a patient's CT scan and loudly diagnoses a malignant tumor and says it to the patient as well as to his colleagues, shocking them all. This is a prime example of the opposite of empathic concern, as he had a complete disregard for how the patient would react to this unfortunate news. Although Dr. Murphy has a rough start with demonstrating empathic concern, he is able to learn quickly that it is important to reassure a patient.

Demonstrating empathic concern is often a difficult area to score well on as it is not easy for people with ASD to detect others' emotions and adjust their behaviour accordingly. In the scene above Dr. Murphy reviews a CT scan with his colleagues in front of the patient and loudly diagnosis her with a tumor, emphasizing "definitely malignant". This is an issue for him because doctors are generally required to display proper bedside manner and be cautious of how the patient may feel about their results. Therefore, Dr. Melendez had to pull Dr. Murphy aside and tell him that it was not appropriate for him to blurt that out of nowhere in an insensitive fashion. Although Dr. Murphy had some flaws in this behavioural family, like the rest of them, he was

able to learn and adjust his behaviours. In the next episode if he had concerns, he would ask to speak to Dr. Melendez in the hallway instead of the patient's room.

Example 1: Another good example displaying Dr. Murphy's empathic qualities is his ability to connect to his patients on a personal level. He often draws on his past experiences and knowledge to connect with his patients. For instance, Dr. Murphy was visibly uncomfortable around Liam, an autistic patient, but he tries to calm him by telling him the story when he got off the bus and how he makes mistakes too and that mistakes are okay. Dr. Murphy used his personal experience of making a mistake to comfort Liam when he got upset because he was not able to sit through his MRI without being overwhelmed and constantly moving. Dr. Murphy was successful at consoling the patient and reassuring him that mistakes are good and that everyone is allowed to make mistakes.

Example 2: Shaun was in his apartment when Lea walked in, upset about the fact that she was told that her music was too loud and that she needed to listen to it with headphones. Shaun agreed and said that her music was really loud and, that when she plays it, he has to sleep with earplugs in. Lea became upset at the fact that Shaun did not support her being angry that people were complaining and saying that it was unfair. Later Shaun confided in Claire, and she let Shaun know that there is a certain point when people want you to be truthful and other times when they just want to be supported. Shaun understood after talking to Claire that it was probably that Lea wanted to be supported and did not want the truth. When Shaun returned home, he stopped by Lea's apartment and apologized for hurting her feelings and they were able to make up and continue building their friendship. This example is a good demonstration of the amount of empathic concern that he displays throughout the first season of the show. Shaun clearly did not intend to hurt Lea's feelings by being honest with her and he was able to

understand that he had hurt her feelings and he acted appropriately by apologizing and moving forward with their friendship. It is an important aspect of demonstrating empathic concern because it shows that he truly understands when people's emotions change, and he knows that his behaviour needs to adjust accordingly.

Example 3: Another example of Dr. Murphy demonstrating empathic concern was when a young girl came into the hospital and identified herself as transgender. Dr. Murphy did not understand and referred to her as a male because biologically she was still male. Dr. Murphy did not understand the importance of using the proper pronouns and how much it could hurt the person if he did not conform to the rules of gender pronouns. However, even though he did not understand at first, throughout his time working with the patient he was able to better connect with her and understand her situation. He sat on the bed and said "I don't know what it feels like to be anyone but me," he makes a connection with her because he does not understand what it would be like to be a female and he was curious about what she was experiencing. He makes a considerable amount of effort to get to know her and her experiences. Dr. Murphy made a deep connection with her by the end of the episode and learned that for instance "she is more of a purple girl". He stated this to Dr. Glassman when her grandmother brought her flowers. Dr Murphy followed that comment with "I like her" to which Dr. Glassman was surprised that Dr. Murphy understood that she was a she. This example demonstrates Dr. Murphy's ability to understand people's emotions and to be considerate of the woman's feelings and demonstrate empathy towards her and her situation.

Social knowledge where an individual can read social situations and adjust their behaviours depending on the situation (Yager & Iarocci, 2013). This behavioural family also covers things like an individual's ability to act their own age, as well as be polite with authority

figures, act appropriately in public spaces, understand relationships like what constitutes a friend and have reasonable expectations of friends. For example, an individual may act differently toward peers compared to an authority figure. This behavioural category measures an individual's ability to understand various social situations and respond accordingly as well as the ability to identify dangerous or risky situations (Yager & Iarocci, 2013). There are many instances throughout the first season of the show where Dr. Murphy demonstrates social knowledge and is able to navigate most social situations with ease. He is able to switch from dealing with friends and colleagues to dealing with patients (he is able to act and demonstrate his knowledge of the field). Dr. Murphy was also quite social and was often able to meet new people and connect with them on a personal level. He made many friends in the first season, even though not every person was fond of the autistic doctor.

Example 1: Dr. Murphy demonstrated his social knowledge through his ability to alter his behaviours when dealing with different groups of people. For example, Dr. Murphy was able to adjust his behaviour and attitude differentiating between patients, authority figures, friends, and strangers. In the episode when Dr. Glassman was insisting on his trying a PSW, Dr. Murphy was quite visibly upset with Dr. Glassman because he felt strongly about not wanting or needing a PSW. Then when Dr. Murphy was called to go see a patient, he was able to completely switch his behaviours and shift his focus to helping the patient. Another time that he was able to adjust his behaviour was when dealing with a child versus an adult patient. He rarely had children as patients but when he did, he was quite comfortable communicating with them and adjusting his behaviours and making the patient comfortable. It is clear through this example that Dr. Murphy is highly socially knowledgeable because he can understand the difference between a social interaction with a friend or stranger and when he is interacting with patients. Dr. Murphy is

capable of adjusting his behaviours and swiftly changing between Shaun and Dr. Murphy (i.e. between a regular person and a health professional).

Example 2: Although Dr. Murphy had previously known Dr. Glassman before working at the hospital, he was able to differentiate between when Dr. Glassman was his boss and when he was his friend. Dr. Glassman was in charge of Dr. Murphy and he was aware of that, though Dr. Murphy often had interactions with Dr. Glassman as a friend rather than his boss, he was capable of differentiating between the two. Dr. Melendez was Dr. Murphy's attending physician and was immediately responsible for him. Dr. Murphy, although often blunt, understood that Dr. Melendez was his boss and the one who was teaching him during his residency at the hospital. It is important to understand this because Dr. Murphy was aware of the fact that he had to listen to him and report to him. Dr. Murphy did not treat Dr. Melendez the same way as he treated his friends like Claire and Lea. For example, in one scene the team was treating a VIP patient who was a famous computer gamer. The physicians were trying to find their best action plan to deal with his elbow issue when Dr. Murphy offered Dr. Melendez an idea for surgery; but before he was able to finish his idea, Dr. Melendez and Dr. Andrews completely shut him down and refused to listen to what he was proposing. Therefore, it is clear that Dr. Murphy understands his place within the hospital and that he is a subordinate to Dr. Glassman, Dr. Andrews, and Dr. Melendez. It is important to make this differentiation especially within the first season of the show because Dr. Murphy was new to the hospital and did not have any previous interactions with these doctors, besides Dr. Glassman. Therefore, Dr. Murphy is highly socially knowledgeable because of his ability to differentiate between his peers and his authorities.

Example 3: Dr. Murphy acts his own age and has friends his own age as well. As previously discussed, Dr. Murphy demonstrates his motivation to connect with people, but not

only is he able to grasp the concept of friendship and seek it out, but he is able to understand the concept of age and the individuals which whom he should befriend. Although he does not often meet individuals who are younger than he is, he has sought friendships with people roughly his age. For example, he quickly becomes friends with Claire (Dr. Brown) within the first few episodes of the first season. Dr. Murphy also became friends with his neighbour Lea. Shaun was able to connect with Lea on a personal level and showed a lot of interest in Lea not only as a friend but in a more romantic way. For example, Lea was one of the few people who could touch Shaun without his showing discomfort. For instance, Lea was over at Shaun's apartment after he had interviewed a PSW whom he did not want, and she tapped Shaun on the shoulder. Although he looked surprise he smiled afterwards as if he was comfortable with physical contact with her unlike the discomfort he showed when a patient's parents (in the first episode of the season) hugged him. Therefore, not only can we see that Shaun is capable of differentiating between friends and authorities, but he is also capable of differentiating between friends and romantic partners. Shaun presents many abilities that fall under the social knowledge behavioural family and he appeared to be able to navigate through both his personal and professional life with ease. Other individuals with ASD would not be able to make these differentiations and would often not engage with individuals of the same age because they typically have a lower social ability than typical (non-ASD) same aged peers (Connors, 1992). It is important to understand that although ASD is a spectrum disorder, and thus there are variations in its presentation, there is consistently a difference between the social abilities of an individual with ASD and an individual who does not have ASD (Connors, 1992). These differences are not as evident in this television drama as they would be in real life.

Verbal conversation skills are when an individual understands and demonstrates the proper rules verbal conversations like taking turns when speaking, not speaking at someone, and staying on track (Yager & Iarocci, 2013). According to Yager & Iarocci (2013), an individual with strong verbal communication skills would "take turns, understand how to initiate, join and leave conversations, and know when to maintain or change conversational topics" (p. 633). For example, joining conversations without interrupting, shifting conversations to topics of interest, dominating conversations and talking at people would demonstrate appropriate verbal conversation skills. Dr. Murphy regularly demonstrates his verbal communication skills throughout the first season. Dr. Murphy is able to join conversations when appropriate, takes turns when speaking, and does not speak at people but rather he speaks to people in the appropriate manner. He is able to speak when being spoken to, answer questions, solve problems, and express his thoughts and concerns when necessary. There are some instances where Dr. Murphy does not read the situation correctly but is stopped by his fellow resident before he is able to interrupt. However, he does not often break the rules of verbal communication.

Example 1: Dr. Murphy is often very focused on his patients and their conditions and lets himself be fully immersed in all of the information available to him so that he is able to properly treat them. Although Dr. Murphy is very blunt, straight forward, and tells people how it is, he is fully transparent with his patients and wants to keep them informed. For example, in one of the episodes the family asks about whether the femur surgery the doctors proposed had been done before and Dr. Murphy stepped up and said that they would be the first ones to perform it. Although he is blunt, he is also truthful, and is able to answer questions when asked. This is a major importance especially for the purpose of his job because although he admitted it would be

the first time that this particular surgery would be performed, he was able to reason with the patient and the family to outline the risks of both having the surgery and not having the surgery. Therefore, he demonstrates verbal communication skills through his ability to speak when being spoken to or being asked a question. This example illustrates the rules of verbal communication, which not all individuals with ASD would display to the extent that Dr. Murphy does.

Example 2: Dr. Murphy understands the rules of verbal communication and does not interrupt others unless appropriate. For example, an autistic boy was brought into the emergency room on a stretcher and they call the patient psychotic; but Dr. Murphy stepped in and said he is not psychotic, he is autistic and does not like when people touch him. He interrupted at the proper time to help his patient. There are not many instances to which Dr. Murphy breaks the rules of verbal communication.

Example 3: Dr. Murphy speaks to people with the appropriate tone and in the proper manner. For example, he is able to converse back and forth with other surgeons. In one scene a patient's echocardiogram appeared normal at first to the other surgeons, but when Dr. Murphy saw it and asked them to show it again, he was able to determine the problem and show them the slight imperfection in the echo. He is able to ask things politely and not talk at people but talk to them and explain the things that he sees that the others do not. Therefore, not only can he answer questions and speak when being spoken to, he is also able to properly hold a conversation and speak to people rather than at people. He generally follows the rules of the verbal communication skills that were outlined by Yager and Iarrocci (2013). This is an important aspect of social competence as it demonstrates the ability to properly navigate through social situations and be able to converse with others as though he is not autistic, meaning that others with ASD would

most likely not have the same abilities of verbal communication or demonstrate the same abilities as Shaun.

Nonverbal sending skills reflect an individual's ability to display proper physical gestures and facial expressions according to various social situations (Yager & Iarocci). Examples include understanding the appropriate time to smile or to convey a look of concern when another individual is in distress (Yager & Iarocci, 2013). This behavioural category also includes other non-speech related aspects of social interactions like volume and prosody (i.e. rhythm and sound). For example, proper gestures, pointing, eye contact, facial expressions/social smiling, and tone of voice are nonverbal communication. Throughout the first season of the show, Dr. Murphy often seemed to demonstrate the appropriate nonverbal communication skills for different social situations. It is clear in moments that Dr. Murphy does make a serious effort to make eye contact when he is talking to someone or when someone is talking to him. Dr. Murphy rarely demonstrates a lack of nonverbal skills, though he does not smile often unless something makes him happy (i.e. with friends or in a good situation). However, he is able to navigate different social situations and he is able to display proper physical gestures and facial expressions.

Example 1: There are a few important examples to demonstrate Dr. Murphy's nonverbal communication abilities: for example, the ability to demonstrate empathy towards Evan, a young boy who goes to the emergency room that looks identical to Dr. Murphy's late brother, Steve. Dr. Murphy felt compelled to help this boy even though he was only there for a broken arm and not surgery. When Dr. Murphy further investigated Evan's case, he found that he had bone cancer and was extremely sad that he was going to have to tell Evan and his family the bad news. He was able to show empathy towards him, which is one of the important aspects of nonverbal

communication that is especially important in the hospital setting. Dr. Murphy was able to express his concern through not only his words, but his facial expressions and emotions. Throughout his time working with Evan, as well as most of his other patients, Dr. Murphy was able to make eye contact with his patients when he was speaking to them. Therefore, Dr. Murphy's ability to demonstrate empathy, as well as to make eye contact with patients, are both consistent with a high level of nonverbal communication skills.

Example 2: Other examples of nonverbal communication skills that Dr. Murphy displays throughout the first season of the show is his ability to interact well with children. Specifically, Dr. Murphy changes his tone and does not speak to them in the same ways that he may speak to an older patient. As well, he stays calm and does not say anything that could potentially scare the child. For example, after examining the child with a severe stomach ache, while the parents were arguing in the room and not paying attention to their sick child, Dr. Murphy asked to speak to Dr. Melendez outside of the room to discuss the patient. He understood that, with the parents arguing about the child's situation and who or what caused it, the proper thing to do was to speak about the child's condition outside of the patient's room. Therefore, Dr. Murphy demonstrates the proper nonverbal communication skills by changing his tone and speaking at an appropriate volume and rhythm when dealing with this young patient. He was able to take into consideration her age and situation and acted in the proper way. He did not concern the parents or the patient when he asked to speak outside of the room, as they did not ask what was wrong or look worried, therefore we can see that his gestures and tone were able to keep the patient and her family calm.

Example 3: Throughout the same episode, as well as in other instances, Dr. Murphy was the main reason for saving the young girl who ended up having a twisted bowel. He did not stop until he figured out what was wrong with her because he truly believed she was sick. At the end

of the episode, the parents of the young girl hugged him and thanked him for saving their daughter. Although Dr. Murphy was uncomfortable because he did not like being touched, he was still able to smile. His ability to smile through discomfort demonstrates a high level of understanding of nonverbal communication skills, and he is able to provide comfort through his smile. He is able to show that he is happy, as well as that the child survived surgery. According to Yager and Iarrocci (2013), this skill falls under facial expressions and social smiling, which Dr. Murphy used to provide comfort to the family and the patient. This is not the only time that he gets hugged by patients or their family and although he does not typically hug them back, he understands that the hug is more for them and he does not refuse to let them hug him.

Emotional regulation reflects the ability to regulate one's emotions and involves "monitoring, evaluating, and controlling the intensity of one's internal emotional experiences and outward emotion-related behaviour to attain desired affective states" (Yager & Iarocci, 2013, p. 633). For example, low emotional regulation would include acting out when angry or upset, a tendency to have meltdowns, and becoming easily frustrated. In contrast, emotional regulation is seen when an individual is able to regulate their emotions and not become extreme in response to anger or stress. Emotional regulation also includes being able to get past setbacks and dealing with anxiety appropriately. One instance where Dr. Murphy has an outburst occurred when Dr. Glassman insisted on Dr. Murphy getting a PSW in order to help him when Dr. Glassman could not be there. This upset Dr. Murphy and led Dr. Murphy to act out in aggression, slapping Dr. Glassman in the face, when he would not let go of the idea of a PSW. Other than this instance, Dr. Murphy was often able to regulate his emotions and self-soothe when necessary. For example, he was upset the first time Dr. Glassman suggested he get a PSW, but he was able to calm himself down.

Example 1: There are many instances throughout the first season that Shaun appeared frustrated and upset. The majority of the times that he displayed his frustration and anger did not escalate to any sort of aggressive or excessive behaviour. For example, Shaun showed up to his superintendent's apartment and gave him a list of things that needed to be fixed. The list did not include fixing the drip from the kitchen tap. It upset Shaun when the superintendent fixed the drip because he preferred for it to drip at a certain speed. Although he was upset that it did not drip anymore, he was able to make it drip the way he likes, and he was no longer upset about it. Therefore, although he was visibly upset, he was able to regulate his emotions and realize that he could fix it so that it would not bother him anymore.

Example 2: Another instance that upset Shaun was when Lea walked into Shaun's apartment and she took his apple that he had picked out to eat. Although upset that she took it, he was able to go to the market and get another apple. Shaun regulates his emotions by rationally thinking about what he can do to bring him back to a peaceful state. He was able to understand that he could just go and get another apple instead of staying upset at Lea for taking the apple he had wanted.

Example 3: Lastly, when Dr. Glassman told Shaun that he would back off and let him be more independent after the incident with the PSW, Shaun wanted to have Dr. Glassman as a friend, but Dr. Glassman did not respond the way Shaun had hoped. Shaun said that he did not need a father; rather he needed Dr. Glassman as his friend. However, Dr. Glassman did not say anything, and Shaun understood that his silence meant that he did not want to be his friend. Although he was upset with Dr. Glassman for not wanting to be his friend, Shaun made friends with his new neighbour Kenny. Therefore, although knowing he needed a friend, he did not let his emotions control him, rather he went and made a new friend.

Discussion

Based on this examination of *The Good Doctor*, it has become increasingly clear that the portrayal of ASD is glamorized and stereotypical in nature in this television show. Through the examination of Dr. Murphy's social competence, this portrayal of ASD follows the stereotypical nature that past research has found within different portrayals of ASD. The breakdown of the social competence behavioural families allows us to see how the portrayal of ASD in the television show is inaccurate as the main character, Dr. Murphy, does not display the social deficit that the DSM-5 outlines as one of the defining aspects of an ASD diagnosis. Social competence is a defining point of accuracy of an ASD portrayal because of the diagnostic criteria listed by the DSM-5. The DSM-5 states that individuals with ASD will have "persistent deficits in social communication and social interaction across multiple contexts," meaning that an individual with ASD would demonstrate deficits in social communication to some extent within different contexts (*American Psychiatric Association*, 2013, p. 50). Therefore, it is essential to understand that this deficit in social communication is an inherent part of ASD, which therefore must be included in order to portray the disorder accurately.

Portrayal of ASD

As noted, the inclusion of ASD characters in mainstream media is important for educating the public on various conditions with which people live. It is important to ensure that not all television shows portray the characters through a faultless lens. There is a general inaccuracy of the media representations of different social groups (Prochnow, 2014), Although it is difficult to portray every aspect of ASD as not every diagnosis looks the same, media portrayals "still exhibit too few aspects of autism to be considered representative" (Prochnow, 2014, p. 134). For the purpose of this research paper it is important to be objective and view the

television show as if I were someone without any knowledge or understanding of ASD. Documenting every interaction and every scene that features Dr. Murphy and then categorizing each of these data points in the family of behaviours it reflects provides an objective way to analyze the representation of ASD in the show. In regard to social competence, the objective of this first research question was to better understand the ways in which *The Good Doctor* portrays the social competence of the autistic main character and whether or not it is aligned with the pattern of social competence displayed by typical ASD participants.

Overall, as clearly shown through numerous examples from the first season of *The Good Doctor*, Dr. Shaun Murphy is generally portrayed as having high social competence (Yager & Iarrocci, 2013). Although Dr. Murphy had to learn to read people and situations more carefully, he was still able to grow and adjust his behaviours accordingly. Dr. Murphy demonstrates a high level of abilities in each of the behavioural families and is able to learn from social mishaps. Throughout the first season of the show, we can see that Dr. Murphy was able to navigate almost all of his social interactions with ease. This is significant for the findings of this research because it is important to understand the accuracy of the portrayal of ASD. As discussed throughout this paper, it is clear that individuals with high functioning ASD would likely not demonstrate the same abilities as those demonstrated by Dr. Murphy. In other words, Dr. Murphy displays an unusually high degree of social competence compared to typical high functioning individuals with ASD.

The DSM-5 states that “people with ASD tend to have communication deficits, such as responding inappropriately in conversations, misreading nonverbal interactions, or having difficulty building friendships appropriate to their age” (*American Psychiatric Association*, 2013, p. 50). This is clearly demonstrated through the lens of social competence presented by Yager

and Iarocci (2013), as the social competence behavioural families allow us to assess an individual's social communication abilities to determine their social competence. As we can see, Dr. Murphy did not have the difficulties in any of the areas listed in the DSM-5. There is a group of deficits outlined by the DSM-5 that are the basis for diagnosis of ASD; therefore, understanding where and how Dr. Murphy fits into these deficits is essential for determining the accuracy of the portrayal. In other words, if Dr. Murphy were assessed according to the standards of the DSM-5 would he be diagnosed with ASD? The DSM-5 outlines the following deficits: "persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history:…deficits in social-emotional reciprocity, deficits in nonverbal communicative behaviours used for social interaction, deficits in developing, maintaining, and understanding relationships" (*American Psychiatric Association*, 2013, p. 50). Dr. Murphy consistently demonstrates none of the deficits outlined by the DSM-5, as shown through the various examples given from the first season of the show. Therefore, it is clear that Dr. Shaun Murphy does not portray the realities of ASD accurately in the first season of *The Good Doctor.*

Chapter 5: Conclusion

Based on this case study of *The Good Doctor*, it is clear that the portrayal of ASD is inaccurate. This conclusion was drawn after examining the many examples of the ways that the autistic character's behaviours do not align with characteristics of ASD according to the DSM-5. As explained earlier, the most significant indicator of autism and ASD is a deficit in social communication. It is clear through the analysis of Dr. Murphy's behaviours throughout the first season of the show that he does not demonstrate a deficit in social communication. In other words, although Dr. Murphy made some social communication mistakes, the majority of the time he was able to navigate through social interactions and learn from past communication mishaps. For the purpose of conducting this research it is important to place this inaccuracy within the larger implications that could result from it.

Media Effects Theory

In chapter 1, I drew on the theory of media effects (Lasswell, 1970) as the theoretical basis of this research. The premise of this theory is to identify the impact and effect that a given media has on its audience/consumers. For example, according to Katz (2001) the media have the ability to influence an individual's knowledge, attitude, behaviour and opinions of a given subject. This is important in order to understand the influence that the media has on its audience, especially when it could reinforce the status quo or stereotypes (Katz, 2001). In my research, I asked about the implications that could result from a misrepresentation of individuals who have been diagnosed with ASD, as well as their families. This research question is grounded in media effects theory (Lasswell, 1970) because it focuses on determining the effects and implications of a misrepresentation of ASD in the media. As seen in the various examples provided in Chapter 4, Dr. Shaun Murphy demonstrated a high level of social competence and was generally able to

navigate social interactions with ease. Dr. Murphy was very resourceful and often relied on his previous knowledge and understanding of human interaction to help him in his own interactions. A large concern of the potential false expectations that could result from it arose after reviewing Dr. Murphy's social competence in interactions. For instance, if an individual with no prior knowledge or experience of ASD watches *The Good Doctor* for the first time, they would see that Dr. Murphy, an individual with ASD, demonstrates exceptional medical abilities due to his diagnosis of savant syndrome. They would also see that Dr. Murphy had sophisticated and competent interactions with his patients, colleagues, superiors, and friends, maintained positive relationships, understood humour and sarcasm, demonstrated empathy and, in sum, seemed to enjoy well-developed communication skills. Therefore, the individual watching the show and taking in the information conveyed by the show and its characters would develop a skewed and inaccurate knowledge and understanding of ASD. According to Katz (2001), "mass media can affect knowledge, attitudes, opinions, and behaviour of individuals" (p. 274). Therefore, through the understanding of media effects theory and the important effect that media has on its audience, it is a real possibility that this misrepresentation of ASD could result in misconceptions and misunderstandings of ASD and how it manifests itself within different individuals.

Media effects theory can also help explain the consequences of ASD television characters, who most often also have a savant syndrome diagnosis. The perception that an ASD diagnosis also encompasses savant abilities can negatively skew the understanding and knowledge of consumers of these shows because the majority of ASD characters also are portrayed as having savant syndrome. In other words, the fact that characters with ASD in the majority of shows and movies have savant syndrome can skew the knowledge and understanding of the audience.

As media effects theory clearly shows, the media have much influence on our attitudes, knowledge, and opinions. This is a concern for those with ASD and their families because they already face many barriers to face in their daily lives. The deficit in social communication is definitely a barrier in their lives and affects each person differently. There are many aspects of ASD that are not included in these television show portrayals of ASD (e.g. nonverbal ASD, behavioural problems, and different coping mechanisms). These aspects of ASD that are excluded from the media representations are not negative, though they are rarely included in media portrayals of ASD. This is a problem because the media are only portraying one side of ASD and one that does not seem overly negative. In reality, people with ASD confront many more barriers than these media portrayals would have us believe.

Inclusivity

As argued in previous research conducted on inclusivity in the media (e.g. Ford, 1997; Mantilla & Goggin, 2020; Monaghan, 2020) it is important to represent marginalized groups, but it is also important that these representations do not do more harm than good. In other words, the inclusion of a marginalized group should not reinforce stereotypes and harmful ideas about such a group.

The different groups being included more frequently in television were discussed thoroughly in Chapter 2, though we can now place this representation of ASD within the evolution of inclusivity. The first season of *The Good Doctor* demonstrates a clear example of inaccurate representation. This inaccurate portrayal of ASD, like the misrepresentation and underrepresentation of other groups, could lead to harmful consequences (Campbell & Hoem, 2001; Crewe, 2015; Ford 1997; Tyree, 2011). For example, the stereotypical portrayal of African Americans led individuals to view them in a stereotypical way as they were largely influenced by

the rare representation of African Americans in television series (e.g. Albert, 2008; Dixon, 2000; Ford, 1997; Rada, 2000; Tosi, 2011). These stereotypical or one-sided depictions have consistently led to the increasing stereotyping by individuals in the real world.

The inclusion of the LGBTQ+ community has been rare but increasing. In the beginning, there was a severe underrepresentation of LGBTQ+ individuals which became more stereotypical as it became more frequent. Not only were these representations framed in a negative light, but audiences were more likely to see a gay or bisexual man (as opposed to a lesbian or bisexual woman) in tv and movie roles. The exclusion of other groups within the LGBTQ+ community is an issue because the media focus predominantly now on gays, lesbians, and bisexuals and do not represent other individuals who are transgender, queer, two-spirited, or much more. The connection of the representation of the LGBTQ+ community in television and the representation of ASD in television relates to the significance of stereotyping. Just as a gay man was often framed as a villain and effeminate (Monaghan, 2020), individuals with ASD are often stereotypically portrayed as a superhuman with superhuman abilities. These stereotypical portrayals of any group of individuals in television causes harm to the individuals who identify as part of the LGBTQ+ community or live with the ASD. When reinforced in the media, these stereotypes reinforce the barriers that individuals must face day-to-day. For example, framing gay men as villains can alter the audience's knowledge, attitude, and behaviour towards gay men. This is a known consequence of negative stereotypical portrayals according to the media effects theory discussed earlier (Katz, 2001).

Throughout the literature review of the representation of disabilities, it was clear that representations are often stereotypical. For instance, the savant abilities of characters in *The Good Doctor, Rain Man, Greys Anatomy* and other television shows and films are a stereotypical

representation of ASD and are not representative of most individuals diagnosed with ASD (Poe & Moseley, 2016). The objective of this research project was not to shed light on the stereotypical savant that has been demonstrated in past research but to explore the accuracy of the representation of an autistic individual's social competence. Media effects theory can help us to understand the potential consequence of inaccurately representing the social abilities of an individual with ASD. As discussed earlier, Katz (2001) states that "mass media can affect knowledge, attitudes, opinions, and behaviour of individuals" (p. 274). Therefore, it is increasingly important to understand that through this inaccurate representation in *The Good Doctor* of Dr. Murphy's above average social competence, it is probable that an individual who watches this television series could hold a higher than realistic expectation of an autistic individual's social abilities. In other words, if an individual interacts with someone who is diagnosed with ASD after they have watched *The Good Doctor*, according to media effects theory, this portrayal could affect an individual's knowledge, attitudes, and behaviours and create false expectations which would influence their interaction with the autistic individual. This is important because we can see the larger implications of inaccurate representations as creating further barriers for individuals with ASD.

Ethics

This research project exposed the ethical implications of including inaccurate and stereotypical representations of individuals with ASD. Is it ethical to include these representations if they are inaccurate or reinforce stereotypes? Should the media platform (i.e. the television show) take responsibility for the harm that it could cause? It is important to understand the larger implications of these representations because although we have shifted greatly to a more inclusive society, there are still many barriers that marginalized groups face in

their daily lives. It is important to ensure that these representations do not reinforce barriers, foster stereotypes, or cause any other forms of harm. These are important ethical questions that need to be addressed because there should be boundaries and rules set to ensure that no harm is done through the inclusion of marginalized groups in the media.

After considering the ethical implications of inaccurate representations of marginalized groups, and more specifically individuals with ASD, I started asking myself about the larger consequences of these inaccurate representations. Do we hold the specific media organization accountable for inaccurate representations? Should media organizations hire people who specialize in the areas of these marginalized groups to ensure that they are including accurate portrayals? We should not aim to eliminate the representation of marginalized groups in the media, but we should aim to ensure they are accurate and harmless. Therefore, ethically it is important to ensure that there is a thorough process put in place to lessen the potential of inaccurate representations and their subsequent harmful and negative consequences.

Limitations

The main limitation of this study is that it focused on one character in one season of a single television show. Therefore, it is hard to generalize this study to other representations of ASD, though as seen throughout the literature review, studies that have looked at other television shows and movies have found similar stereotypical representations.

Future research

Future research could explore the ethical implications of stereotypical and inaccurate representations of ASD in the media. Another area that could be furthered investigated from this project is to look deeper into the effects that the television show has on its audience. For instance, research could be conducted to better understand the effects on the audience through

studying viewers' perceptions, attitudes, behaviours, and knowledge of ASD after watching the show. Another area for future research is to delve deeper into representations of ASD in other media. For instance, rather than television and film representations of ASD, the representation of ASD in the news, radio, and social media could be examined.

Although more research can be conducted on media representations of ASD, there are still many other marginalized groups that need to be studied to understand the accuracy of the representation and the effects of negative or inaccurate representations of these groups. For example, other marginalized groups that could be studied could those with obesity, Down's syndrome, deafness, blindness, mental health issues, and more. These marginalized groups deserve inclusion within the media; however, they are often not included, and they are not typically framed in a positive light. It is important that each of these groups be studied individually and in depth to ensure that media platforms are not being used in a harmful manner. The concept of moving toward a more inclusive society where inclusive media is vital, though it is equally important to ensure that representations be accurate and ethical.

Therefore, in the broader view of society and the movement to an inclusive society, the media holds the power and responsibility to reflect the diversity we see in society. If the media takes on that responsibility of including diverse groups, it has the ability to change society by changing people's perceptions of these diverse groups. For instance, the media has recently been filled with anti-racism and the Black Lives Matter movement, which fights against systemic racism that African Americans face. It is important for the media to be a key stakeholder and supporter of these movements as they have the power to spread information about the problem that is taking place and contribute to change. If the media takes responsibility to include the diversity, we see in society it will, in turn, help our society to accept and embrace our diversity.

This acceptance and understanding that individuals come in all shapes, sizes, colours, backgrounds, identities and abilities can help move people to fight against the injustice that marginalized groups face.

To use the media as an ally is an important tactic to ignite change in our society as the media has the power to change individual's attitudes, behaviours, and knowledge about the reality, injustice and barriers that marginalized groups face in their daily lives. The media, whether radio, television, film, social media, or any other platform has the power to influence change and thus has the responsibility to ignite the change and fight for equal rights for all humans.

References

Albert, T. C., & Jacobs, R. D. (2008). Television attitudes and TV types of African-Americans, Latinos, and Caucasians. *Journal of Advertising Research*, *48*(2), 235–246. https://doi.org/10.2501/S0021849908080276

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorder: DSM-5.* (Fifth ed.). Arlington, VA: American Psychiatric Association.

Blumberg, S. J., Carle, A. C., O'Connor, K. S., Moore, K. A., & Lippman, L. H. (2008). Social competence: Development of an indicator for children and adolescents. *Child Indicators Research*, *1*(2), 176. https://doi.org/10.1007/s12187-007-9007-x

Burns, S. (2016). Diversity and journalism pedagogy: Exploring news media representation of disability. *Journalism & Mass Communication Educator*, *71*(2), 220–230. https://doi.org/10.1177/1077695815598436

Campbell, C., & Hoem, S. (2001). Prime time's disabled images. *Television Quarterly*, *32*(1), 44–50.

Connors, J. L. (1992). *Navajo perceptions of autism and social competence: A cultural perspective* (Order No. 9223873). Available from ProQuest Dissertations & Theses Global. (304009045). Retrieved from https://search-proquest-com.proxy.bib.uottawa.ca/docview/304009045?accountid=14701

Coover, G. E. (2001). Television and socialidentity: Race representation as "White" accommodation. *Journal of Broadcasting & Electronic Media*, *45*(3), 413. Gale Academic OneFile.

Crewe, D. (2015). Over the rainbow. *Screen Education*, *76*, 50–59.

Devotta, K., Wilton, R., & Yiannakoulias, N. (2013). Representations of disability in the Canadian news media: A decade of change? *Disability & Rehabilitation*, *35*(22), 1859–1868. https://doi.org/10.3109/09638288.2012.760658

Dixon, T. L., & Linz, D. (2000). Overrepresentation and underrepresentation of African Americans and Latinos as lawbreakers on television news. *Journal of Communication*, *50*(2), 131–154. https://doi.org/10.1111/j.1460-2466.2000.tb02845.x

Ellis, K. (2010). Autism and Aspergers in popular Australian cinema post-2000. *Disability Studies Quarterly*, *30*(1). https://doi.org/10.18061/dsq.v30i1.1076

Ellis, K. (2019). *Disability and digital television cultures: Representation, access, and reception*. Routledge. https://doi.org/10.4324/9781315755663

Falter, M. M. (2013). "You're wearing Kurt's necklace!" *Journal of Adolescent & Adult Literacy*, *57*(4), 289–297. https://doi.org/10.1002/jaal.243

Ford, T. E. (1997). Effects of stereotypical television portrayals of African-Americans on person perception. *Social Psychology Quarterly*, *60*(3), 266–275. JSTOR. https://doi.org/10.2307/2787086

Katz, E. (1987). Communications research since Lazarsfeld. *The Public Opinion Quarterly*, *51*, S25–S45.

Katz, E. (2001). Lazarsfeld'S map of media effects. *International Journal of Public Opinion Research*, *13*(3), 270–279. https://doi.org/10.1093/ijpor/13.3.270

Kiggins, K. (2020). *Promoting improved social interaction to people with autism spectrum disorder: Reimagining representations in television and social media*. *4*(2), 8.

Klin, A., Jones, W., Schultz, R., Volkmar, F., & Cohen, D. (2002). Visual fixation patterns during viewing of naturalistic social situations as predictors of social competence in individuals with autism. *Archives of General Psychiatry; Chicago*, *59*(9), 809–816.

Kuan-Hung, C. (2018). Effects of multimedia teaching integrated social story on autistic children's social interaction. *Quality and Quantity; Dordrecht*, *52*(2), 1399–1408. http://dx.doi.org.proxy.bib.uottawa.ca/10.1007/s11135-018-0731-8

Lasswell, H. D. (1970). Review of the analysis of communication content: Developments in scientific theories and computer techniques [Review of *Review of The Analysis of Communication Content: Developments in Scientific Theories and Computer Techniques*, by G. Gerbner, O. R. Holsti, K. Krippendorff, W. J. Paisley, & P. J. Stone]. *AV Communication Review*, *18*(4), 461–467.

Mantilla, S., & Goggin, G. (2020). Thirty years of (in)visible disability in Australian television: Home and Away's experiments with representation and inclusion. *Media International Australia*, *174*(1), 39–48. https://doi.org/10.1177/1329878X19883890

Mayo Jr., J. B. (2017). LGBTQ media images and their potential impact on youth in schools. *Social Education*, *81*(5), 303–307.

McInroy, L. B., & Craig, S. L. (2015). Transgender representation in offline and online media: LGBTQ youth perspectives. *Journal of Human Behavior in the Social Environment*, *25*(6), 606–617. https://doi.org/10.1080/10911359.2014.995392

McInroy, L. B., & Craig, S. L. (2017). Perspectives of LGBTQ emerging adults on the depiction and impact of LGBTQ media representation. *Journal of Youth Studies*, *20*(1), 32–46. https://doi.org/10.1080/13676261.2016.1184243

Merrell, K. W., & Caldarella, P. (2002). HCSBS home and community social behavior scales. Baltimore, MD: Paul H. Brookes Publishing Co.

Monaghan, W. (2020). Lesbian, gay and bisexual representation on Australian entertainment television: 1970–2000. *Media International Australia*, *174*(1), 49–58. https://doi.org/10.1177/1329878X19876330

Montgomerie, M. A. (2010). Visibility, empathy and derision: Popular television representations of disability. *Alter*, *4*(2), 94–102. https://doi.org/10.1016/j.alter.2010.02.009

Nordahl-Hansen, A., Øien, R. A., & Fletcher-Watson, S. (2018). Pros and cons of character portrayals of autism on TV and film. *Journal of Autism and Developmental Disorders; New York*, *48*(2), 635–636. http://dx.doi.org/10.1007/s10803-017-3390-z

Nordahl-Hansen, A., Tøndevold, M., & Fletcher-Watson, S. (2018). Mental health on screen: A DSM-5 dissection of portrayals of autism spectrum disorders in film and TV. *Psychiatry Research*, *262*, 351–353. https://doi.org/10.1016/j.psychres.2017.08.050

Orloff, S. N. S. (2009, April). Autism, social competence, and academic performance. *The Exceptional Parent; Boston*, *39*(4), 66–67.

Orta, S. (2016). *Affecting teen attitudes through positive media portrayals of teens with Autism Spectrum Disorder* [Ph.D., Walden University]. http://search.proquest.com/docview/1759634885/abstract/846F1B4877284101PQ/1

Paymon, H. (2019). *Parental behaviors and child expressive language ability as predictors of peer social competence for young children with and without autism* (Order No. 13903683). Available from ProQuest Dissertations & Theses Global. (2301551369). Retrieved from https://search-proquest-com.proxy.bib.uottawa.ca/docview/2301551369?accountid=14701

Pinchevski, A., & Peters, J. D. (2016). Autism and new media: Disability between technology and society. *New Media & Society*, *18*(11), 2507–2523. https://doi.org/10.1177/1461444815594441

Poe, P. S., & Moseley, M. C. (2016). "She's a little Different": Autism-spectrum disorders in primetime Tv dramas. *Et Cetera*, *73*(4), 291–313.

Prochnow, A. (2014). An analysis of autism through media representation. *ETC: A Review of General Semantics*, *71*(2), 133–149.

Rada, J. A. (2000). A new piece to the puzzle: Examining effects of television portrayals of African Americans. *Journal of Broadcasting & Electronic Media*, *44*(4), 704–704.

Romero, V., Fitzpatrick, P., Roulier, S., Duncan, A., Richardson, M. J., & Schmidt, R. C. (2018). Evidence of embodied social competence during conversation in high functioning children with autism spectrum disorder. *PLoS One; San Francisco*, *13*(3), e0193906. http://dx.doi.org/10.1371/journal.pone.0193906

Scheufele, D. (1999). Framing as a theory of media effects. *Journal of Communication*, *49*(1), 103–122. https://doi.org/10.1111/j.1460-2466.1999.tb02784.x

Semrud-Clikeman, M. (2007). *Social competence in children*. Springer. http://ebookcentral.proquest.com/lib/ottawa/detail.action?docID=336913

Shore, D., Highmore, F., Gonzalez, N., Thomas, A., Garrett, B., Tomita, T., Harper, H. Sony Pictures Home Entertainment (Firm). (2018). *The good doctor: Season one*.

Stern, S. C., & Barnes, J. L. (2019). Brief report: Does watching the good doctor affect knowledge of and attitudes toward autism? *Journal of Autism and Developmental Disorders*, *49*(6), 2581–2588. https://doi.org/10.1007/s10803-019-03911-7

Szidon, K., & Hedges, S. (2015). *Supporting success and safety in relationships. Autism at-a-Glance* (p. 4). http://search.proquest.com/docview/2101362956/E812E4DA92E44BA0PQ/5

Taylor, H., & Dozier, C. (1983). Television violence, African-Americans, and social control 1950-1976. *Journal of Black Studies*, *14*(2), 107–136. https://doi.org/10.1177/002193478301400201

Tosi, P. (2011). Thinking about what we see: Using media literacy to examine images of African Americans on television. *Black History Bulletin*, *74*(1), 13–21.

Trevisan, D. A., Tafreshi, × Donna, Slaney, K. L., Yager, J., & Iarocci, G. (2018). A psychometric evaluation of the Multidimensional Social Competence Scale (MSCS) for young adults. *PLoS One; San Francisco*, *13*(11), e0206800. http://dx.doi.org/10.1371/journal.pone.0206800

Tyree, J. M. (2011). Hope and fear in the interrupters. *Film Quarterly*, *65*(2), 32–36. https://doi.org/10.1525/fq.2011.65.2.32

Waggoner, E. B. (2018). Bury your gays and social media fan response: Television, LGBTQ representation, and communitarian ethics. *Journal of Homosexuality*, *65*(13), 1877–1891. https://doi.org/10.1080/00918369.2017.1391015

Worrell, T. R. (2013). The ethics of disability representations on television. In R. Ahmed & B. R. Bates (Eds.), Health communication and mass media: An integrated approach to policy and practice (pp. 229-239). New York: Routledge.

Yager, J., & Iarocci, G. (2013). The development of the multidimensional social competence scale: A standardized measure of social competence in autism spectrum disorders. *Autism Research*, *6*(6), 631–641. https://doi.org/10.1002/aur.1331

Young, L. S. (n.d.). *Awareness with accuracy: An analysis of the representation of autism in film and television*. 74.

Zhang, L., & Haller, B. (2013). Consuming image: How mass media impact the identity of people with disabilities. *Communication Quarterly*, *61*(3), 319–334. https://doi.org/10.1080/01463373.2013.776988

Zuger, A. (2018). Television's the good doctor raises good questions. *JAMA*, *319*(18), 1848–1849. https://doi.org/10.1001/jama.2018.4665

Appendix

Social Motivation
*__1__. I prefer to spend time alone (e.g., I am most content when left on my own).
*__42.__ I need to be told or prompted to talk or interact with people.
*__14.__ I stay in the "background" in group social situations (e.g., keep to myself, may not be noticed).
*__69.__ I show little interest in people.
*__22.__ I avoid talking to people when possible (e.g., look, move, or walk away).
2. I enjoy meeting new people.
76. I introduce myself to people (without being told to).
10. I initiate friendly social "chit-chat" with people (e.g., ask about what's new with other person, talk about the weather or events). These are casual conversations that often have no specific purpose.
57. I seek out people to spend time with (e.g., friends, other people).
65. I initiate get-togethers with peers (e.g., call or email or text them to make plans).
19. I ask people questions about themselves or their lives (e.g., how they are, what they've been up to).
Social Inferencing
54. I recognize when people are trying to take advantage of me.
77. I understand when people are being sarcastic.
*__52.__ I have trouble judging who is trustworthy (e.g., who to share secrets or personal information with).
*__13.__ I misread social cues.
*__67.__ I do not pick up on the subtleties of social interaction.
45. I can see things from another person's perspective.
3. I easily recognize unfriendly actions. For example, I know when someone is making fun of me in a mean-spirited way. Or, I recognize when a peer is pressuring me to do something I shouldn't or don't want to do.
28. I pick up on subtle hints and indirect requests. For example, I would understand that when someone asks "Can you reach that book?", they are asking me to pass it to them. In other words, I can "read between the lines" when others are talking.
*__40.__ I am naïve (believe whatever I am told).
*__59.__ I have trouble predicting what other people will do or how they will react.
24. I can tell when people are joking.
Demonstrating Empathic Concern
9. I am sensitive to the feelings and concerns of others.
16. I express concern for others when they are upset or distressed (e.g., may ask "are you alright?" or ask if they need anything).
48. I offer comfort to people (e.g., to someone who is upset, not feeling well, hurt etc.). For instance, I may try to hug the person or provide a comforting object as a way of trying to make the other person feel better.
64. I congratulate people when good things happen to them.
55. I try to cheer people up (when they are down).
5. I apologize after hurting someone (without being prompted or told to).
*__27.__ I am indifferent or "oblivious" to people who are upset (or in distress).
39. I am concerned about people and their problems (e.g., talk to someone who is having a hard time).
30. I appear visibly upset when I see people suffering (in real life or on tv/film).
*__20.__ I give compliments to people.
11. I do not offer to help people (unless asked or told to).
Social Knowledge
26. I know about the latest trends for my age (e.g., in clothes, music, tv shows/movies, music).
72. I change my behaviour to suit the situation. For example, I might be more polite/ formal around authority figures like teachers or supervisors but be more casual around peers. As another example, I might change my way of speaking depending on who you are talking to (e.g., talk more simply to a younger child).
73. I dress appropriately for my age and social situation (e.g., dress up for formal events, wear more casual clothes on weekends, wear clothes that are generally considered acceptable by peers my age).
33. I change the volume of my voice depending on where I am (e.g., quiet at the library, movies but louder when outside or at a sporting event).
75. I hide my true feelings (when necessary) so that I don't come across as rude (e.g., I might hide feelings of disappointment when given a gift that I do not like or when someone breaks something of mine by accident).
58. I understand the "social hierarchy" at school or work or in other settings (e.g., understand that teachers or supervisors are in a position of authority).
43. I follow social "rules" around privacy (e.g., respect people's privacy when they are changing/ in the washroom; knock on closed doors instead of barging in).
71. I understand that it is important to have good personal hygiene (e.g., smelling and looking clean).
53. I understand what makes a true friend.
31. I act appropriately for my age in public (e.g., restaurants, movie theatres, libraries, doctor's waiting rooms, etc).
47. My expectations of friends reasonable. For example, I know that they have other friends or are not always available.

Verbal Conversation Skills
*__61.__ I dominate conversations so that it can be hard for others to "get a word in". For example, I might ramble on and on about a favourite topic of interest. I might also need reminders/prompting to let others speak.
*__7.__ I shift conversations to my favourite topic or interest.
*__8.__ I talk about the same things over and over ("get stuck" on certain topics).
*__63.__ I provide too much detail when talking about a topic (e.g., I might list a bunch of facts rather than expressing a main message or exchanging information).
*__6.__ I talk "over" people in conversations (e.g., interrupt a lot, don't wait for others to finish speaking).
*__74.__ I talk too much.
__56.__ I give other people a chance to speak during conversations (e.g., pauses, asks them questions).
*__12.__ I have trouble joining conversations appropriately (e.g., I may interrupt or "butt in" without waiting for a good time to join in; or, I may start talking about a topic of interest to me regardless of the ongoing conversation).
*__37.__ I talk "at" people (e.g., almost like I am giving a lecture).
*__38.__ I go off track during conversations (e.g., I might change topics suddenly as if thinking aloud or reminded of something else; or, I might gradually get sidetracked or lose track of your original point).
__50.__ I am good at taking turns in conversations (e.g., my conversations have age -appropriate levels of back-and-forth with each person getting a chance to talk; I respond appropriately to the other person's questions or statements).
Nonverbal Conversation Skills
*__51.__ My facial expressions seem "flat" (e.g., my face may be like a "blank slate" or seem overly serious).
*__62.__ I sound the same (have the same tone and intonation in his/her voice) regardless of how I am feeling. In other words, it is hard to tell what I am feeling based on the way my voice sounds.
__23.__ My facial expressions are easy to read.
__17.__ I look people in the eye when talking to them.
*__29.__ My smiles seem forced or awkward.
__66.__ I point at things when appropriate (e.g., to get another person to look at something far away).
__49.__ I use appropriate gestures when communicating with people (e.g., nodding/shaking head, waving goodbye, pointing at something interesting or far away, giving thumbs up, putting finger to lips for "be quiet", etc.).
__34.__ I show a range of facial expressions (e.g., embarrassed, guilty, surprised, disgusted, pleased).
*__70.__ I speak with a flat, monotonous tone of voice.
__35.__ I smile appropriately in social situations (e.g., if given a compliment, greeting someone, in response to someone smiling at me).
__32.__ I use eye contact to get other people's attention (e.g., to start a conversation, ask a question).
Emotional Regulation
*__46.__ I have "meltdowns" (e.g., sudden outbursts, "blow ups" temper tantrums).
*__18.__ I get frustrated easily.
__15.__ I am patient (e.g., when waiting).
*__36.__ I act out when angry or upset (e.g., yell at, hit, or shove people).
*__21.__ My emotional responses tend to be extreme (e.g., I might be extremely angry or frustrated in response to relatively small problems).
*__60.__ I get very upset if things are not done your way.
__41.__ I get over setbacks or disappointments quickly.
*__44.__ I get very anxious.
__4.__ I disagree with people without fighting or arguing.
*__68.__ My emotions tend to be "all or nothing" ("all on" or "all off").
__25.__ I stay calm when problems come up.

*Items marked with an asterisk are reversely keyed.

https://doi.org/10.1371/journal.pone.0206800.t001