

The Analysis of the Differences between On-screen Portrayals and Realistic Characters of Autism Spectrum Disorder - Take the Example of The Good Doctor in the U.S.

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Abstract. Autism spectrum disorder (ASD) is a prevalent mental disease, but most people do not have enough interaction with individuals on the autism spectrum; they may learn about it through other resources like movies and television shows. Therefore, it is essential to ensure the veracity of ASD character portrayals on screen. Many previous researchers have analyzed the details of the representation of ASD in popular culture, but academic articles focusing only on a particular TV series are scarce. Thus, this research aims to analyze the differences between on-screen portrayals and realistic characters of ASD from the case study of *The Good Doctor*, which is popular in many countries. This study first records the specifics of ASD portrayals in this television series, then compares them to the DSM-5 criteria for ASD, determines whether these depictions can influence people's understanding, and concludes with suggestions for the depiction of ASD characters in film and TV. The results show that in *The Good Doctor*, ASD characters frequently tend to be highlighted savant skills and simultaneously represent the four symptoms of the second diagnostic criteria for ASD in DSM-5; besides, specific plot strands like unfortunate experiences tend to be set up. Therefore, to solve these problems, autistic characters can be included in some long-running and popular TV series to influence the public's views sustainably. More incidental ASD characters could also be encouraged to appear on screen to provide various characteristics of ASD. Besides, competent educators can also assist people in viewing these dramas in educational settings.

Keywords: Autism spectrum disorder (ASD), on-screen portrayal, savant skill, symptom.

1. Introduction

Autism spectrum disorder (ASD) is a mental disorder characterized by difficulty in social communication and interaction, repetitive behavior and movement, and atypical sensory responsiveness [1]. Early in 2012, the Centers for Disease Control and Prevention released research predicting that in The United States, 1 out of every 88 children had been diagnosed with ASD, an increase from the 1960s rate of 1 in 2500 children being affected [2, 3]. Although ASD is regarded as a common psychiatric disorder, the majority of people may not have substantial or direct interaction with people on the autism spectrum; thus, they need to gain knowledge from other sources, such as movies and TV series. As elements of popular culture, films and television shows provide depictions of significant themes that assist individuals in cultivating their specific tastes and forming attitudes and beliefs about particular topics [2]. Moreover, by reaching a much larger audience than academic papers, movies and television series can better spread ASD knowledge and messages [4]. Consequently, popular culture is considered a significant source of knowledge regarding mental disease for the general public, which may increase public awareness and understanding of ASD. According to an annotation published in *The Lancet* in 1936, psychiatry is now a tool in audio films that may not only entertain those who are mentally afflicted but also educate those not already familiar with the field [5].

However, the on-screen representations of ASD in popular culture are not accurate to some extent, leading to a heated discussion in the ASD research community, among people on the spectrum, and other stakeholders [6]. The inaccurate portrayals of ASD in film and television productions might mislead people's understanding of this mental condition, distorting their views of the real characters of ASD. For example, most autistic people on-screen are shown as "crazy", "aloof", or "isolated", and this framework suggests that ASD can only be comprehended through a negative interpretation [7].

By contrast, when inaccurate representations of ASD in film and TV series are corrected, public perception may become more prosperous and diverse, thus reducing or even eliminating stereotypes about ASD. In this case, people with ASD, or all with mental illness, might be free from prejudice and discrimination in work and life.

This field has met with great success in analyzing the wrong ways used to represent ASD characters in films and TV series and the stereotypes that can lead to the general public. Still, academic articles focusing only on a particular TV series are scarce. The Good Doctor has been famous in the last five years in many countries. The leading role, Shaun Murphy, a young autistic savant surgical resident working in the fictional San Jose St. Bonaventure Hospital, offers a glimpse into the challenges of work and the daily life of this autistic surgeon. Therefore, this research will focus on this series in the U.S, recording and analyzing the details of on-screen portrayals of ASD—then comparing them with realistic characters, trying to find out if these differences will shape people's understanding positively or negatively.

2. Background information

Much previous research has focused on the on-screen portrayal of people with ASD. For instance, Poe and Moseley claim that most autism-themed films and TV dramas adhere to "The Autistic Formula", which means a narrative structure that follows the development of characters with ASD, screenwriters consistently stereotype ASD, employing the same familiar tropes and limiting individual agency among these characters [8]. It is also indicated by Poe & Moseley that there is a raised fascination with ASD among material creators, as well as an increasing trend of presenting persons of color with ASD, like Max Braverman in *Parenthood*, Sheldon Cooper in *The Big Bang Theory*, and "Crazy Eyes" in *Orange is the New Black* [8]. Besides, the predominance of stereotypes in practically every representation of neurodiverse people in current movies. The popular savant stereotype in superhero stories adds to incorrect views about people with autism [9]. Studies on cinema and television depictions of ASD characters confirm the prejudice that genius abilities are overrepresented [6]. Consequently, the bombardment of ASD-related information from various movies and TV dramas can be perplexing if people cannot sift through, blend, or distinguish correct information from false one [9]. Thus a more significant, more diverse number of ASD characters can be included in the popular culture for portrayals of ASD on the screen to lead to meaningful significance in enhancing public knowledge about this mental disorder [5]. This research hypothesizes that, even though there might be some differences between the on-screen portrayal of ASD in *The Good Doctor* with the actual characters, it may also positively affect people's understanding of ASD populations.

According to a clinical definition, Autism spectrum disorder is indicated by delayed or aberrant verbal and nonverbal communication, compulsive habits, self-harm, social self-alienation, and a preference for quiet environments [2]. Numerous studies have revealed an alarming lack of acceptance of people with ASD. For example, it has been commonly noted that caretakers of individuals with ASD endure stigma from society [10]. ASD students are also particularly vulnerable to bullying, which shows that society may have prejudices against ASD groups [11]. Individuals with ASD raised worries about prejudice, intolerance, and misconception of the condition, and they contend that popular culture stereotypes their condition without giving them a platform to express themselves [2]. However, producers of popular culture have not done much to satisfy the growing interest in ASD of the public; instead, to generate drama and attention, they have satisfied society's appetite in regulated doses by inserting people with ASD into supporting parts [2]. For instance, many examples depict feelings of pity and humiliation, like Juli's uncle in *Flipped*.

The representation of ASD varies in different films and TV series, but these portrayals have created certain societal stereotypes. The models of ASD family dynamics were investigated by Allen (2017) through the lens of three films. Findings showed that mothers' conversations revealed that harmful coping methods seemed to be caused by having a child with autism. These depictions of ASD in the

films give the impression that having a child with ASD is terrible for a mother; consequently, this depiction supports outmoded messaging about mothers of ASD children while spreading false information about ASD family dynamics [12, 13]. Some portrayals may also severely mislead people's perceptions. The film *Molly* depicts experimental brain surgery that temporarily "heals" Molly's autism. Regardless of clinical accuracy, such depictions cannot promote comprehension or contribute to positive social attitudes [5].

3. Analysis of the ASD images in *The Good Doctor*

Although autism spectrum disorder can manifest in various ways, each with its own features and behaviors [14], *The Good Doctor* mainly tends to portray autistic characters into two traits and set up some specific plots for them.

Firstly, characters with ASD frequently tend to be highlighted savant or genuine-level skills, typically technical abilities such as surgical and mathematics skills. Shaun Murphy had a unique mind and a keen interest in medical science when he was just a kid. He was extraordinary and capable of living independently and managing his own affairs. Moreover, he has almost perfect recall and spatial intelligence; the ways he views and analyses things are remarkable, and he shows genius-level skills in surgery after growing up. When hired as a surgeon by the president of San Jose St. Bonaventure Hospital, Shaun Murphy was questioned by some doctors as a result of his lack of "common politeness", which might cause him to come across as rude and insensitive at times. However, because of his excellent surgical skills, the other doctors try to tolerate and interact with him even though he has a lousy manner and is apathetic to his colleagues. For example, he does not respond to others when thinking about something in his own mind, avoids eye contact, and becomes quite irritated and anxious when being asked questions by others repeatedly. Therefore, savant skills are represented in *The Good Doctor* might because Shaun Murphy needs to use these remarkable skills to prove personal value in his career and remove any doubt in his colleagues or patients about his workabilities, as well as makeup for his significant defects in social communication. As a result, the audience may tend to ignore Shaun's deficiencies in other fields. The producers may decide to include these savant skills to advance the plot, boost entertainment, and improve ratings.

Secondly, characters with ASD in *The Good Doctor* simultaneously represent the four symptoms of the second diagnostic criteria for ASD. To be specific, the first symptom of Shaun Murphy is that he will repeat the same movement when he feels anxious or scared about social situations, such as flicking his fingers or putting his hands over his ears. The second one is that he prefers to plan things thoroughly before carrying them out and getting very irritable when plans are broken by accident. For example, in Season 1, Episode 8, Shaun's neighbour Lea inadvertently ate his apple while complaining about her life; even though he had been restraining himself, he felt a little frustrated and angry about this unexpected event, then Shaun must go to the convenience store and buy an identical apple before leaving to work. In addition, Shaun never deviates from his daily commute, even if he is late for work due to the late arrival of the bus. The third symptom is Shaun's highly restricted habits and interests. He carries a toy scalpel with him at all times as spiritual support, which was given to him by his brother when he was a teenager; after that, this toy scalpel and the tragic death of his brother sparked his interest in medicine. Shaun's unusual interest and sense are the last symptoms. The most apparent representation in *The Good Doctor* is that he can notice and be attracted by subtle details, which may serve a decisive role in surgery. Moreover, after the pipe in the sink had broken down, he became extreme irritability and restless when hearing the same frequency of dripping water. The producers may intend to improve the accuracy and credibility of ASD characters by portraying more of the traits of ASD and enhancing the dramatic effect of this series.

The producers also tend to draw specific plot strands to depict the ASD characters. In nearly every episode, some unfortunate childhood experiences are over-emphasized to show that these experiences can play a critical role in shaping Shaun's future career. For instance, Shaun usually recalls the rabbits he kept being killed by his father and his brother falling off a train and dying in front of him. Because

of these, Shaun chose to study medicine after he grew up. Moreover, there is always someone to assist Shaun in functioning in emotional domains with which he has difficulty interacting directly, like his brother, colleagues and leader. These details are set up mainly to promote the development of the plot and make the audience empathize with the ASD characters.

4. Discussion

In the ASD community, high-functioning and verbal individuals are not the norms, which does not correspond to the portrayals of Shaun in *The Good Doctor* [14]. Although savantism is an actual and probable component of autism, only 20% of autistic people were reported to have a "relatively typical level of intelligence" or to be "high functioning" in 2006; while this data excludes people with Asperger Syndrome, the proportion of high-functioning autistic people is significantly lower than might be assumed based on media portrayals [14]. Despite the fact that savant talents are more prevalent in those with ASD than in those with any other disorder, savantism occurs in less than one in three individuals with ASD [6]. However, fictional autistic characters with savant skills are overrepresented on screen, which elevates the individual with ASD from having a disorder that negatively impacts them to having a condition that makes them unique and more intriguing than ordinary people, as exemplified by the character of Zen in *Chocolate*, who demonstrates remarkable martial arts ability at an early age [5, 14, 15]. This overrepresentation of savantism fosters erroneous perceptions of those with ASD; the public incorrectly assumes that all autistic individuals have savant talents. However, this is typically not the case, and these prevalent misrepresentations may lead to erroneous public perception, stereotyping, and stigmatization [12]. *Rain Man* significantly impacts people's views of ASD and increases society's awareness of ASD. Still, it may mislead audiences to believe that savantism and autism are synonymous [6]. By contrast, even though there are glimpses of savant skills in Sam's highly structured drawings in his notebook in *Atypical*, a TV show, this is not overemphasized [16].

According to the second criterion of Autism Spectrum Disorder (ASD) in the Diagnostic and Statistical Manual of Mental Disorders 5th Edition (DSM-5), at least two of the four symptoms indicate confined, repetitive behaviour, interests, or activities [17]. Thus autism can be diagnosed with only two of the four symptoms [14]. Stereotyped or repetitious speech, motor motions, or use of items is the first symptom, which is manifested in *The Good Doctor* by Shaun's repetition of flicking his fingers at almost all times [17]. "Excessive adherence to routines, ritualized patterns of verbal or nonverbal conduct, or extreme aversion to change" is the second symptom [17]. For this symptom, people with ASD are portrayed in this series as very keen on making plans, even for some subtle things. The third symptom is abnormally intense or focused, highly confined fixated interests; the producers always tend to imply that Shaun is intensely interested in surgery by various cues in the series [17]. The fourth possible symptom is hypo-reactivity to sensory input or an extraordinary interest in sensory components of the surrounding environment [17]. For this, people with ASD often show extreme fear and anxiety about specific objects and sounds in *The Good Doctor*. However, most film and television characters with ASD tended to exhibit nearly all of the symptoms specified in the diagnostic criteria, which is significantly different from the clinical picture observed in the real world [12]. Some autistic individuals do exhibit all four symptoms [14]. However, in this series, it is inaccurate to assume that every autistic individual engages in these behaviours.

These problems can be solved by some measures for the on-screen portrayals of ASD characters. Firstly, some autistic characters could be included in long-running and popular TV series like *The Big Bang Theory*. It is significant since these characters will have a long-standing influence on people's views and may be perceived as impacting public awareness on a daily basis towards autistic people [5]. Besides, there are also some opportunities in this setting to demonstrate ASD people's growth and change through time [5]. Producers of *The Good Doctor* may attempt to build rational and plausible accounts by setting unfortunate experiences and some supporting roles that can be relied on by ASD characters, such as their parents or co-workers. However, the sudden appearance of these

plots and characters might confuse viewers. Secondly, the community can encourage more incidental characters with ASD to appear on film and TV shows to provide a more nuanced image of various characteristics to represent the heterogeneity of ASD [5, 18]. As the name "spectrum" suggests, ASD is a condition of neurodiversity that spans a significant heterogeneity; consequently, it is impossible to describe the spectrum on a single ASD character entirely or do justice to the diversity and complexities of autistic lived experiences [16]. However, various types of ASD characters can be presented as much as possible, particularly in a realistic manner [14]. Unfortunately, mainstream movies and TV shows fail to demonstrate autism as a spectrum disorder; characters' behaviours, mannerisms, and intellectual abilities display minimal variation [14]. In addition, as for the misunderstanding and stereotypes towards ASD people brought by these films and TV series, if knowledgeable teachers with a thorough understanding of ASD and preferably clinical experience, people can view these dramas in educational settings, and they can be assisted in distinguishing between fiction and reality [6].

5. Conclusions

Movies and television dramas are able to raise the public's awareness of ASD since they have more opportunities to reach a much larger number of people than academic journals. Dramatic depictions of ASD are commonly used as a teaching method in medical training and education-training contexts to create relationships with an individual with ASD and raising awareness of ASD among the general public. Therefore, before films and TV programs are widely broadcast, the accuracy of these representations and the ensuing ASD knowledge can be thoroughly investigated by the autism community.

There are some limitations to this research. First, this research evaluates the differences between the on-screen portrayals and realistic images of people with ASD, relying on a convenience sample of a popular TV drama—*The Good Doctor*, with which most people were previously familiar. However, this study only focused on one TV series, which is not a sufficient sample quantity to draw conclusions. Because of the limited sample quantity size, the results of this research may not be as objective or accurate as expected. Besides, a different selection of samples might also lead to entirely different results. Secondly, it is not certain that all symptoms of ASD have been included in this research, and all chosen signs qualify as having ASD because they used clinical assessment measures were not sufficient.

Further research could broaden the scope of studies of ASD on-screen portrayals by including diverse types of TV drama, such as comedies, since ASD characters are increasingly treated in comedy programs, such as *Atypical*, *The Big Bang Theory*, *The Middle* and *Community*. Moreover, Films and TV series about ASD from other countries could potentially be included to evaluate the diverse representations of people with ASD, such as *Extraordinary Attorney Woo* in Korea, *My Running Shadow* in China, and *Her Sketchbook* in Japan. In addition, further research could also analyse the difference between on-screen portrayals of ASD and realistic characters through experimental designs, such as interviews with ASD people and their families, friends or colleagues or distributing questionnaires to them. Although this research draws the results supported by the literature, experimental researchers could evaluate these results by asking participants for their perceptions of the difference and connections between on-screen portrayals and reality. Finally, a collaboration between researchers with clinical expertise in assessing ASD traits and media analysts may also produce the most objective and accurate results for this research.

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