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Article

The perks of watching a movie: How the portrayal of anxiety and depression in film affects teenagers' perception of anxiety and depressive disorders

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SUMMARY

In film, anxiety and depressive disorders are often depicted inaccurately. When viewers are exposed to these inaccurate portrayals, they collect misinformation about the disorders, as well as people who live with them, leading to stigma. This study used a mixed-method descriptive approach to analyze 16 teenagers' attitudes towards people with anxiety and depression. We then compared these results to their attitudes towards the character Charlie in the coming-of-age film *The Perks of Being a Wallflower*, who has clinical anxiety and depression. Participants were given an initial survey, shown clips from the film, then given a reflection survey. They were also asked their thoughts on the depiction of anxiety and depression in film as a whole and its implications. We hypothesized that participants would develop a more negative opinion of people with anxiety and depressive disorders after watching the film as compared to their initial survey because characters with mental illnesses are most often depicted as violent and unable to lead a normal life. The results did not support our hypothesis. We found that participants used more adjectives with positive connotations to describe the character Charlie than they had used to describe someone with anxiety and depression. Additionally, while participants understood how these portrayals create stigma, they did not attribute this to misinformation. These results can be used to help both the film industry and the movie-going public better understand the effects of inaccurate storytelling and the extent to which it informs public perception.

INTRODUCTION

Nearly one in three teenagers will meet the criteria for an anxiety disorder by the time they turn 18 (1). Anxiety disorders, including social anxiety disorder, specific phobias, and generalized anxiety disorder, consist of symptoms related to panic and its physical results (2). As of 2017, 11.7% of adolescents in the United States met the criteria for a depressive disorder (1). Depressive disorders, which include major depressive disorder, disruptive mood dysregulation disorder, and persistent depressive disorder, result in symptoms related to feelings of sadness or emptiness that affects a person's ability to function (2). These disorders are often generalized into the umbrella terms "depression" and "anxiety," referring to the most common symptoms among them.

Public perception has played a major role in the change in treatment of anxiety and depressive disorders, along with increased public awareness, better methods of diagnosis, decreased stigma, increased screening and outreach programs, and an increase in availability of medications (3). Attitudes toward mental health are significantly impacted by its portrayal in the media, as mass media presentations are the most commonly reported source of information about mental illness (4). The ability to spread this information over a wide area in a short amount of time allows more people to access it.

There are mentally ill characters in as many as 6% of theatrical films every year (4). These portrayals are often exaggerated and dehumanizing, emphasizing more severe disorders and portraying characters as violent, aggressive, or unpredictable (4). Not only that, but the characters are more likely to be depicted as "bad" rather than "good" and are less developed than other characters, making them feel like a set of symptoms (4). This contributes to the lack of understanding of anxiety and depressive behaviors because there is a range of symptoms experienced within each disorder and not all people with a disorder will act the same as the character in a film. Because so many films portray characters with disorders as violent, the public is quick to assume that someone in real life with that disorder would also be violent (4). Films also contribute to this negative stigma by making characters seem strange to the audience through film techniques. Characters with mental illnesses are often framed in a shot alone, using camera angles and lighting to separate them from the rest of the characters and emphasize their peculiar characteristics (5). Further isolating the character underscores the idea that they are "othered."

Vivid portrayals of characters with mental illnesses in film can lead to confusion between real memories of mental illness representations and fictitious representations. This can warp audience members' idea about a certain disorder until it permanently resembles the character (6). These perceptions

are difficult to break and efforts to inform the audience of this phenomenon are still not completely effective. Even if an audience is given a disclaimer about the inaccuracy of what they are watching before, during, or after the film, they still take away some negative attitudes from the portrayal (4, 6). These images continue to affect the attitudes of audience members, even if the person is consciously rejecting the stereotypes that they are being shown. (7).

Some mental health professionals have found that the portrayal of psychological disorders in film can be used as a tool in their practice through "cinematherapy" (8). During cinematherapy, therapists assign their patient to watch a movie between sessions, then reflect on what they have seen during their next session. Cinematherapy is an effective way to introduce patients and parents to disorders they have not experienced in their own lives, help patients express themselves by projecting themselves onto the character, and provide role models that exhibit coping mechanisms and other positive examples (8).

In this study, we sought to address the relationship between the portrayal of psychological disorders in film and teenagers' perception of these disorders. While there have been several studies on the effect of psychological disorders in film on adults, none have specifically targeted teenagers (4-7). This is especially significant because many films that depict psychological disorders are designed to target a teenage audience. There has also been an increase in the prevalence of these disorders among teenagers. A national survey of children's health from the Data Resource Center for Child and Adolescent Health found that the number of respondents between the ages of six and 17 with an anxiety disorder increased 20 percent between 2007 and 2012 (9). Similarly, Pew Research Center's analysis of the National Survey on Drug Use and Health found that the percentage of respondents between 12 and 17 who had experienced a major depressive episode in the past year increased five percent between 2007 and 2017 (10). With mental health becoming increasingly important for teenagers, it is also important to prevent them from receiving misinformation in the form of entertainment. This study specifically looks at the relationship between watching the film *The Perks of Being a Wallflower*, a movie with a main character with anxiety and depression, and teenagers' attitude towards those with anxiety and depressive disorders. We hypothesized that participants would come away with a more negative opinion of people with anxiety and depressive disorders after watching *The Perks of Being a Wallflower*. We predicted that methods typically used to make the character more interesting to the audience will prevent participants from empathizing with them.

RESULTS

Participants were given two surveys to measure their attitudes towards people with anxiety and depression against their attitudes towards the character Charlie in *The Perks of Being a Wallflower*. The initial survey was given before seven clips of the film were shown. The reflection survey was given to participants after the clips. It consisted of questions about the character Charlie, their opinions on the film's accuracy, and their opinions on accuracy and effects of the portrayal of psychological disorders in film.

To assess the participants' attitudes towards people with anxiety and depression, the initial survey asked them to come up with five adjectives that they would use to describe someone with anxiety and five they would use to describe someone with depression. Outliers that consisted of spelling and grammar errors, profanity, or cases where the adjective's intended context was not evident were removed prior to data analysis. Words with similar meanings were grouped together and condensed into seven broader themes. The seven themes reflected the most common responses given by participants (**Table 1**).

When asked what adjectives they would use to describe someone with anxiety, the participants' responses most commonly fit into the themes distress about the present or the future (75%) and distress in social situations (14%) (**Figure 1**). When asked the same question about depression, the most common responses were feeling sad or empty (48%) followed by distress in social situations (22%) (**Figure 2**). In the

Table 1. Themes found in questions that asked participants to list adjectives.

Theme	Examples of Adjectives Used
Distress about the present or the future	Worried, nervous, stressed
Positive connotations	Smart, caring, passionate
Distress in social situations	Introverted, lonely, isolated
Lack of motivation	Uninterested, unmotivated
Feeling sad or empty	Emotionless, depressed, upset
Suicide	Suicidal
Lack of sleep	Tired, sleepy

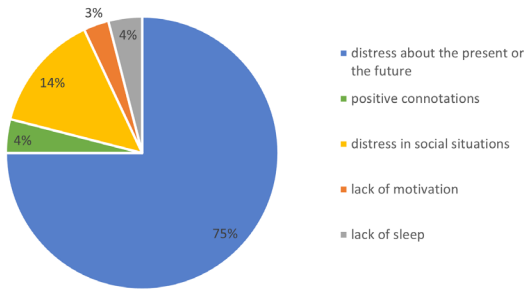

Figure 1. Adjectives respondents used to describe someone with anxiety. The most common types of responses were grouped into themes. The percentage of responses that fell under each theme were displayed in the graph. Each respondent listed five adjectives.

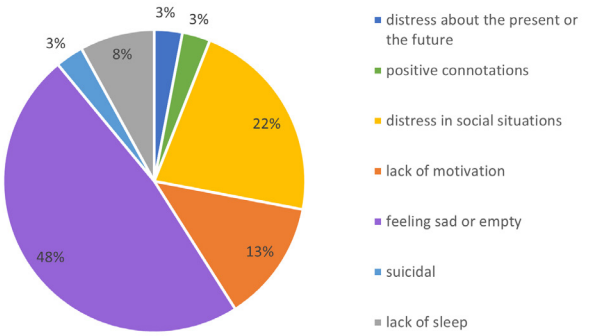

Figure 2. Adjectives respondents used to describe someone with depression. The most common types of responses were grouped into themes. The percentage of responses that fell under each theme were displayed in the graph. Each respondent listed five adjectives.

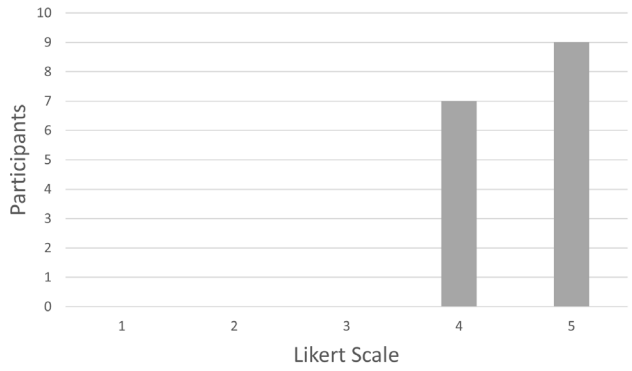

Figure 3. Adjectives respondents used to describe the character Charlie in *The Perks of Being a Wallflower*. The most common types of responses were grouped into themes. The percentage of responses that fell under each theme were displayed in the graph. Each respondent listed five adjectives.

reflection survey taken after participants were shown clips from the film, participants were asked to choose five adjectives they would use to describe the main character Charlie. The most commonly used themes were distress in social situations (36%) and distress about the present or the future (23%) (**Figure 3**). Adjectives with positive connotations were the third most commonly used (22%), which had not been previously listed by participants to describe those with anxiety or depression.

The reflection survey also consisted of open-ended questions with which participants could expand on their answers. They contained an initial response that was the equivalent of either "yes", "no", "partially", or "I don't know." When asked whether they thought the character Charlie was an accurate portrayal of anxiety, ten responded with "yes", two responded with "no", three responded with "partially", and one responded with "I don't know." Most responses cited Charlie's actions in social situations as either accurate for someone with anxiety or too extreme, with one notable response explaining:

> *"Not exactly. Hiding from people in the hallways isn't something I've seen anybody do and I don't think I would ever do if I got too anxious about anything. But the not speaking up in class is something I'm all too familiar with. People fear being wrong or just having attention drawn to them and that portrayal was pretty accurate."*

When asked whether they thought the character Charlie was an accurate portrayal of depression, the same number of respondents chose "yes", "no", "partially", or "I don't know" as the previous question. However, there was much more variety in their elaboration on this answer. Responses cited some of the same reasoning from their previous responses, such as not wanting to speak up in class or having trouble finding friends. They also cited more about his internal state, with one participant saying:

> *"Yes, because the main character kept mentioning 'getting bad' and mentioned it happening before, indicating he may have self-deprecating or bad, depressing thoughts and go into a state of depression."*

Four additional survey questions asked participants to rate their answer on a Likert Scale, with one being strongly disagree and five being strongly agree. When participants were asked whether they think the portrayal of psychological disorders in film makes teens more likely to self-diagnose without a clinical diagnosis, respondents either agreed or strongly agreed, with responses only consisting of fours and fives with a median of five (**Figure 4**). When responding to whether they think the way characters with psychological disorders are portrayed in movies creates misconceptions about these disorders, the responses were skewed to the left, with a median of four (**Figure 5**). This means that most participants agreed that these characters create misconceptions. When participants were asked whether they think the portrayal of characters

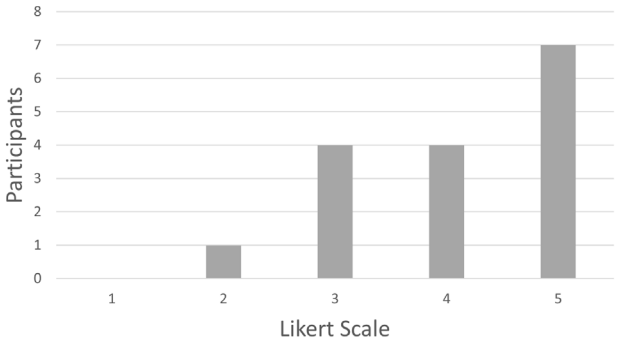

Figure 4. Responses to whether participants felt that the way psychological disorders are portrayed in movies makes teens more likely to self-diagnose without a clinical diagnosis. Respondents were asked to use a likert scale with one being strongly disagree, three being neither agree nor disagree, and five being strongly agree.

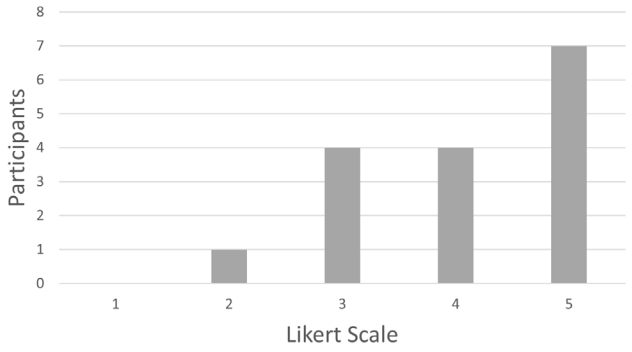

Figure 5. Responses to whether participants felt that the way characters with psychological disorders are portrayed in movies create misconceptions about these disorders. Respondents were asked to use a likert scale with one being strongly disagree, three being neither agree nor disagree, and five being strongly agree.

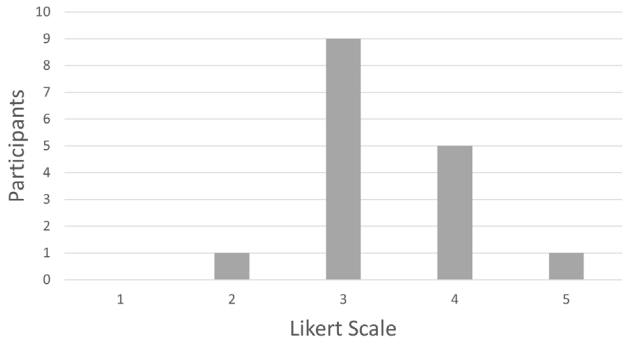

Figure 6. Responses to whether participants felt that the portrayal of characters with psychological disorders (anxiety, depression, or others) in film are accurate. Respondents were asked to use a likert scale with one being strongly disagree, three being neither agree nor disagree, and five being strongly agree.

with psychological disorders (anxiety, depression, or others) in film are accurate, the distribution was slightly skewed to the right, with a median of three (**Figure 6**). This means that a few participants agreed and strongly agreed that characters with psychological disorders in film are accurate, but not enough to cause the median to go past neutral. When responding to whether they relate to the character Charlie, the data was roughly bimodal, with a median of 2.5. This means that the majority of responses were either disagree or agree, with few feeling strongly either way or remaining neutral (**Figure 7).**

DISCUSSION

The goal of this study was to determine the effects of the portrayal of psychological disorders in film on teenagers' perception of anxiety and depressive disorders using the film *The Perks of Being a Wallflower*. We discovered that when describing the character Charlie, a majority of responses were themes participants had previously listed as adjectives they would use to describe someone with anxiety. They also included themes that they had not previously identified as being symptoms of either disorder, such as compassion or intelligence, demonstrating that they had a further understanding of the character than the presented symptoms. These new themes indicate that the participants humanized Charlie and sympathized with him to the point where they included words such as "well-intending." They did not only see the character as his disorders, but rather as a complex person who has a personality outside of his diagnoses. This did not support our hypothesis, which predicted that participants would have more negative opinions of Charlie than of their general descriptions of people with anxiety and depression.

Participants also demonstrated a complex understanding of people with disorders in their responses to questions asking whether they felt the character Charlie was an accurate portrayal of anxiety and depression. Responses were self-aware, with some participants responding that they did not know enough about the disorder to make an accurate determination. Many responded by citing specific instances in the film and comparing them to their own experiences. This suggests that participants projected themselves onto the character. Both types of responses indicate that participants are impressionable due to their lack of concrete information on the topic and their personal stake in the character's emotions.

Lastly, participants were asked to indicate how strongly they related to Charlie on a Likert scale. The data was roughly bimodal, meaning that participants did not overwhelmingly feel one way or another, but their responses were primarily either two or four, meaning that some may have been more able to project themselves onto the character than others. Their responses to additional Likert Scale questions established that participants overwhelmingly agree that the portrayals of psychological disorders in film can promote self-diagnosis in teenagers. We also found that a majority agree that these portrayals can create misconceptions about anxiety and depressive disorders. Through these responses, participants showed an understanding of their susceptibility to these

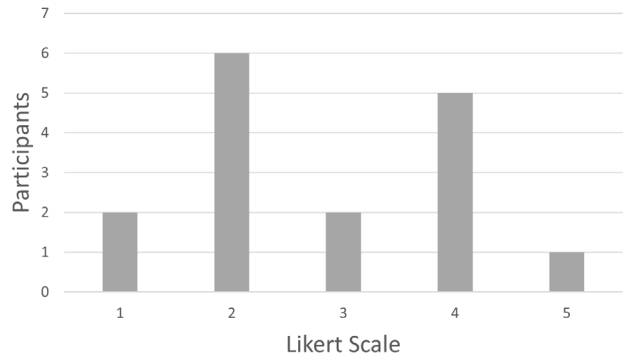

Figure 7. Responses to whether participants felt that they identified with the character Charlie in *The Perks of Being a Wallflower*. Respondents were asked to use a likert scale with one being strongly disagree, three being neither agree nor disagree, and five being strongly agree.

portrayals. They understand that they have the potential to be negatively affected by them. However, the data showed that they also believe the portrayal of anxiety disorders in film are accurate. This suggests that participants do not point to inaccuracies as the reason for these negative effects.

Using clips from the film *The Perks of Being a Wallflower*, this study found that when teenagers were asked to describe someone with anxiety and someone with depression, they were less likely to use positive adjectives compared to when they were describing the character Charlie from the film. This disproved our hypothesis that they would come away from the film with a more negative attitude towards Charlie.

Due to both ethical and time constraints, there were some limitations to this study. *The Perks of Being a Wallflower* references two suicide attempts by the main character, Charlie. Because of concerns surrounding showing sensitive material in a high school level study, any material involving suicide, abuse, or nudity was removed. As a result, participants' reactions were only to those clips shown and not the entire movie, meaning responses may have been different if shown the entire movie.

These clips were shown in a group setting, with participants in a room together. This setup was due to time constraints. Dialogue between participants during the clips and survey may be potential sources of bias in responses.

During the second session of participants, a technological error occurred that resulted in us being unable to use the projector. Instead, participants sat around a laptop and watched the clips on the smaller screen. They were positioned so that everyone could both see and hear the clips being shown. Afterwards, they were spread out to complete the reflection survey. The difference in viewing experiences between the two groups may have affected their overall perception of the clips and therefore their reactions.

The demographics of participants may have also influenced the study's results. Only four of the 16 students were female. All four female participants attended the first session and the second session consisted of only male participants. Research has indicated that when among other men, men feel pressured to avoid expressing their emotions out of fear of appearing feminine (11). As a result, the male participants may have underplayed how closely they related to Charlie or otherwise adjusted their responses. To try to avoid these effects, participants were made aware that their responses would be anonymous.

The method of sampling may have also influenced results. Snowball sampling was used, meaning that participants were encouraged to recruit other students to be participants. This means that some participants were part of the same cohort. Students who knew each other may have held similar views about mental illness or shared the same experiences with mental illness.

In the future, this study could lead to more research into the relationship between psychological disorders and film. Studies using different films, genres and topics would help us better understand the scope of this relationship as well as the nuances in films that change teenagers' responses. Research could also be done to explore the effects these films have on self-diagnosis in teenagers, as the results of this study pointed to a perceived strong relationship between portrayals of disorders in film and self-diagnosis of psychological disorders. Further information could also be collected on participants' previous experiences with anxiety and depression to determine the influence of these experiences on their responses.

The box office performance of several films featuring characters with psychological disorders could be compared to determine whether accuracy affects performance. This could be useful for both directors and researchers pushing for more accurate storytelling. This study could also be replicated on different age groups to determine if age has an effect on perceptions of mental health disorders and help determine if films targeted towards other audiences are more accurate.

MATERIALS AND METHODS

This mixed-method descriptive study sought to explore the effects of the portrayal of anxiety and depression in film on teenagers' perception of anxiety and depressive disorders. We used descriptive and thematic analysis utilizing an initial survey, seven movie clips from *The Perks of Being a Wallflower*, and a reflection survey.

Qualitative descriptive analysis was chosen to allow participants to express their opinion in a semi-structured way (12). For three questions on the survey, they were asked to list five adjectives they would use to describe a person with anxiety, a person with depression, then the character Charlie. This method was based on a study done by Wahl and Roth that measured patterns in the portrayal of mentally ill characters in television (13). However, instead of having participants choose from pre-selected adjectives based solely on the depiction, participants of this study were asked to list five adjectives of their own based on their opinions and personal experiences. Thematic analysis was then used to code these responses and separate them into themes. Other questions were open ended, allowing participants to give an initial response of "yes", "no", "partially", or "I don't know", then justify their opinion. These results were also analyzed to determine the most common form of response and justification. These questions asked participants their opinion on how psychological disorders in film affect the way they perceive mental illness.

Quantitative descriptive analysis was used to determine the strength of responses on a Likert Scale from one to five, with one being strongly disagree, three being neutral, and five being strongly agree. The median of this value was used to determine the overall strength of responses for each question. If the median was one or two, the consensus among participants was that they disagreed with the topic. If the median was four or five, they agreed with the topic. If it was three, they did not lean toward a particular strength. The skewedness of the distribution of responses was also used to determine the overall trend towards a number, providing a

more meaningful interpretation of the trend.

Participants

The 16 participants came from a public high school in Florida. This small sample size allowed for more in-depth analysis of the individual participants' responses (14). Four of the participants were female and twelve were male. Ten of them were 17 years old, four were 16, and two were 15. To qualify, they could not have watched the film *The Perks of Being a Wallflower* prior to participating. This was put in place so their responses reflected their initial reactions to the film clips. Data collection was divided into two sessions for the convenience of participants. Eleven attended the first session and five attended the second. Sessions were on two separate days.

Initial survey

Participants were given an initial survey asking them to list five adjectives they would use to describe someone with anxiety and five they would use to describe someone with depression. Surveys were distributed online using Google Forms and participants' responses remained anonymous. This allowed them to speak freely without fear of having identifiable responses.

The Perks of Being a Wallflower

Several clips from the film *The Perks of Being a Wallflower* were shown to participants of this study. *The Perks of Being a Wallflower* is a coming-of-age story that was released in 2012 and directed by Stephen Chbosky based on the young adult novel of the same name, which was also written by Chbosky. It is a semi-autobiographical novel based on the author's own experiences in high school, set in 1991. Centering around Charlie, a freshman in high school, the film explores bullying, homosexuality, sexual assault, abusive relationships, and mental illness.

The Perks of Being a Wallflower is an excellent example of a film that exposes teenagers to people with psychological disorders. Teenagers can project themselves onto the characters in the film, especially because of the wide variety of topics that are addressed. There can even be a case made for its use in cinematherapy, allowing parents to understand the importance of peer relationships in teenagers' mental health and providing a discussion-starter between therapists and teenage patients (15).

Movie clips

A series of seven clips from *The Perks of Being a Wallflower*, totaling seven minutes 49 seconds, were shown to participants in a group setting. Clips were approved by an Institutional Review Board before being shown to participants to ensure their contents were safe for participants. Clips averaged one minute and seven seconds long. They were shown in chronological order and are described in the following list:

1. Charlie is trying to find a place to sit at lunch. He goes through a list of students who he considers sitting next to but then explains the excuse each one has given him. For example, his older sister tells him that her table is "seniors only", and his childhood friend pretends that they do not know each other while at school.
2. In English class, the teacher asks a series of questions, and Charlie is the only person who knows the answers to them but does not raise his hand. The teacher notices and encourages him to answer, but he refuses.
3. School is not going well for Charlie, but he does not want to tell his parents because he does not want them to worry. He wishes he could talk to his late aunt because he felt comfortable around her. He believes that she would understand that he feels "both happy and sad".
4. Charlie's brother is home from college and asks him how he is doing. Charlie explains that he is "not picturing things anymore" and that if he does, he can "just shut it off". When his brother explains that their mother told him that Charlie has good friends now, Charlie agrees and says he can talk to them if he needs to.
5. During a game of truth or dare, Charlie is dared to kiss the prettiest girl in the room. Instead of his girlfriend, he kisses his friend. Another friend escorts him out of the party and tells him to stay away for a while. The scene then cuts to Charlie writing that he has not seen his friends for two weeks and is "starting to get bad again".
6. Charlie calls his ex-girlfriend, apologizing for what he did. She tells him to stop calling everyone to apologize because he is "embarrassing himself".
7. Charlie explains to the girl he kissed in the previous scene that he knows he is "quiet and should speak more" and that he has trouble communicating his emotions, then they kiss.

Reflection survey

Following the clips, another survey was given consisting of seven questions. The first two questions were open-ended. Participants were asked to report whether they thought the portrayal of Charlie was an accurate portrayal of anxiety and depression. They were then asked to list five adjectives that they would use to describe Charlie. The last five questions were given using a Likert Scale, asking participants to mark the strength of their opinions on psychological disorders in film, characters in these films, self-diagnosis because of these characters, and how strongly they relate to the character Charlie.

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