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Claire Meyer
clmeyer@bgsu.edu

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Promoting Awareness of Autism Spectrum Disorder

Claire L. Meyer

Bowling Green State University

Honors Project

Dr. Virginia Dubasik, Primary Advisor

Dr. Dara Musher-Eizenman, Committee Member

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Promoting Awareness of Autism Spectrum Disorder

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder affecting one in fifty-four children across the United States (Maenner et al., 2016). Individuals with ASD commonly exhibit difficulties with social interaction and communication (e.g., Bauminger et al., 2003; Bottema-Beutel et al., 2014; Coleman-Fountain, 2017; Whitaker et al., 1998). The extent to which individuals are affected by this disorder varies greatly, as its effects range from mild to severe and vary according to gender (e.g., Bauminger et al., 2003; Dean et al., 2017). For example, a study conducted by Dean, Harwood, and Kasari (2017) examined gender differences in children with ASD ($N = 96$, M age = 7.92) and found that girls and boys with ASD displayed key behavioral differences. Both boys and girls with ASD participated in more solitary activities than their neurotypical peers. However, when comparing the behaviors of boys and girls with ASD, results show that girls played less in isolation and were better at masking social challenges when interacting with others. Additionally, boys with ASD exhibited more repetitive behaviors and did not socially engage with peers as much as girls with ASD. These results suggest that differences in individuals with ASD appear to be related to gender.

In terms of social interaction, individuals with ASD struggle to initiate and navigate social conversations and encounters (e.g., Bauminger et al., 2003; Bottema-Beutel et al., 2014; Coleman-Fountain, 2017; Whitaker et al., 1998). Specifically, these individuals exhibit difficulty understanding social norms and cues (e.g., Bauminger et al., 2003; Bottema-Beutel et al., 2014; Cage et al., 2016; Coleman-Fountain, 2017), and they may utilize awkward body language and hand gestures (e.g., Bauminger et al., 2003; Bottema-Beutel et al., 2014). Bauminger, Shulman, and Agam (2003) examined the social competency of children with ASD ($N = 18$, M age = 11;0 years), and found that children with ASD exhibited difficulty understanding complex emotions

in comparison to neurotypical adolescents and were unable to suggest ways in which people can initiate social interactions. Additionally, when compared to neurotypical adolescents, participants with ASD engaged in half the number of positive social interactions and reported having stronger feelings of loneliness and negative emotions than neurotypical adolescents. Overall, these social challenges are faced by most individuals with ASD and make it difficult for them to effectively communicate thoughts and feelings with others (e.g., Coleman-Fountain, 2017; Cage et al., 2016).

In general, studies show that many people with ASD are intelligent and competent (Coleman-Fountain, 2017); however, they experience social deficits that prove to be detrimental and result in neglect and unacceptance by others (e.g., Bauminger et al., 2003; Chang & Locke, 2016; Sreckovic et al., 2014; Thompson-Hodgetts et al., 2020; Whitaker et al., 1998). In fact, many studies have found that individuals with ASD experience more rejection and bullying than neurotypical adolescents (Sreckovic et al., 2014). Sreckovic, Brunsting, and Able (2014) conducted a systematic review of studies investigating the prevalence of bullying for school-aged children with ASD. Participants were individuals with ASD between the ages of 4;0 and 21;0. Results showed that children with ASD experienced higher rates of bullying than neurotypical peers. This vulnerability to maltreatment was attributed to multiple factors, such as social deficits, disability, race, and academic standing; however, even though the participants varied in terms of these factors, they all experienced higher rates of bullying than neurotypical adolescents, thus highlighting that children with ASD are at risk of being rejected by peers.

The social challenges of individuals with ASD are especially obvious during the period of adolescence. Adolescents who are neurotypical regularly interact with others, whether that be parents, teachers, or peers. However, neurotypical adolescents especially value social

interactions with peers because they fear loneliness and desire to be accepted by others (Bauminger et al., 2003). In order to navigate social interactions and gain acceptance from peers, neurotypical adolescents analyze social situations and interpret others' thoughts and actions so that they can behave appropriately according to the situation (Garcia Winner & Crooke, 2011). However, this is difficult for those who have ASD because they struggle to understand social norms and interpret others' behavior during social encounters (e.g., Bauminger et al., 2003; Bottema-Beutel et al., 2014; Cage et al., 2016; Coleman-Fountain, 2017). Furthermore, because these individuals struggle to initiate and understand social interactions, they tend to make irrelevant statements and display awkward body language when interacting with others (e.g., Bauminger et al., 2003; Bottema-Beutel et al., 2014).

The period of adolescence can be particularly challenging for those with ASD because peer interactions become more complicated, and people are often judged by how they act in social settings (Cage et al., 2016). Furthermore, adolescence is a period during which people develop identity, and this can be especially challenging for individuals with ASD. Because they desire to be loved and accepted by others, these individuals struggle with deciding how to act in different social settings (Cage et al., 2016). While adolescents with ASD report wanting to be genuine and authentic, studies suggest they will be excluded and disregarded by peers if they share their true selves with others (e.g., Cage et al., 2016; Coleman-Fountain, 2017; Garcia Winner & Crooke, 2011; Thompson-Hodgetts et al., 2020). For instance, in a study conducted by Cage, Bird, and Pellicano (2016), adolescents with ASD ($N = 12$, M age = 13.75) reported concerns about reputation, friendships, and both social and non-social challenges. Specifically, participants expressed a desire to fit in and have authentic friendships. However, they faced difficulty doing so due to challenges with understanding social rules and changes in routine and

environment. Furthermore, most participants indicated that they understood they were different from peers and feared that others would view them as “not being normal” if they behaved authentically. In a similar study, Coleman-Fountain (2017) investigated the social relationships of individuals with ASD ($N = 19$) between the ages of 23;0 and 24;0. During interviews, participants reported avoiding social encounters during adolescence and attempting to manage encounters while concealing social difficulties. However, participants reported that this was challenging for them because they regularly experienced difficulties in perceiving others’ thoughts and emotions. Furthermore, many of the individuals reported that they experienced feelings of being faulty and needing to improve themselves. Because of this, the participants wanted people to see ASD as a difference rather than a deficit so that they wouldn’t be underestimated in terms of value and competency. Overall, these studies indicate a need for neurotypical adolescents to become more educated about ASD so that they can better understand their peers who are affected by the disorder and be more kind, respectful, and inclusive of those individuals.

The purpose of the service learning project was to a) educate neurotypical adolescents about ASD, and b) positively influence acceptance and inclusivity of individuals with ASD. In order to do this, I created a 45-minute presentation targeting late middle school and secondary school adolescents. The goal was to visit up to five different schools; however, due to COVID-19, several school administrators were reluctant and declined my request to present the talk at their sites. The final number of administrators who agreed to allowing me to visit and present the talk was three. Presentations were completed at Russia High School (Site 1), Houston High School (Site 2), and Holy Angels Middle School (Site 3). All three sites were located in Ohio. Russia is a public secondary school, and the majority of students are white and of middle or high

socioeconomic status. At Russia High School, the presentation was given to the entire student body, which consisted of nearly 140 adolescents. Site 2, Houston High School, is a public school with most students being white and of low or middle socioeconomic status. The presentation was given to 20 students in a Sociology class. Site 3, Holy Angels Middle School, is a private, Catholic school, and most students are white and range from having a low to high socioeconomic status. The presentation was given to all students in grades 7 and 8, which consisted of nearly 35 adolescents.

The PowerPoint presentation consisted of informational slides, videos, and interactive Kahoot activities that aimed to engage students' attention while also furthering the understanding of ASD. Specifically, I provided a definition of ASD, provided facts regarding prevalence of the disorder, described how ASD affects those affected, and provided detailed examples of actions and steps that can be taken by students in the audience to help and more positively engage with people who have ASD. At various points during the presentation, I used three rounds of Kahoot activities to engage the audience and promote learning through discussion and activities to prompt critical thinking skills. The first round of Kahoot questions were used to determine the baseline knowledge of the audience concerning ASD. The questions were: a) *Do you know anyone who has ASD?*, b) *Who are the people you know with ASD?*, c) *Are individuals with ASD born with the disorder?*, d) *In what ways does ASD affect individuals?*, e) *What may individuals with ASD struggle with?*, and f) *Can the severity of ASD vary between individuals?*. These questions were selected in order to gauge baseline knowledge about ASD. This round of questions was useful because responses helped me avoid redundancy and know when to elaborate on new information. The purpose of the second round of Kahoot questions was to invalidate myths about ASD. This was accomplished using a series of statements requiring

true/false responses. The true or false statements were: a) *individuals with ASD are not intelligent*, b) *individuals with ASD cannot excel in regular public high schools*, and c) *people with ASD cannot live successful lives after high school*. This Kahoot activity offered an opportunity to squash some misconceptions students may have had about ASD, and it also allowed me to highlight the abilities of those who have ASD. The purpose of the last round of Kahoot questions was to provide students practice with recognizing how to best help people with ASD in specific situations. To accomplish this, I provided students with scenarios and asked them to choose the most appropriate response or reaction. Specifically, I provided the following situations: a) *someone with ASD brings up a random topic when speaking with a group of people*, b) *someone with ASD is sitting alone at lunch or recess*, c) *a person with ASD is struggling to respond to someone in a conversation*, and d) *someone is in a hurry and needs to wrap up a conversation with a person who has ASD*. I chose these commonly reported situations so that students could apply what they had learned throughout my presentation and come up with meaningful and appropriate ways to engage with their peers who have ASD.

The responses to the first round of Kahoot questions suggested that most students had some understanding of ASD prior to the presentation. Between 90 and 95% of students indicated knowing someone with ASD and responded correctly to general questions about how ASD affects individuals. Similarly, the responses to the second round of Kahoot questions suggested that most students possessed a general understanding of ASD and were not misguided by myths about ASD, as nearly 95% of students provided correct responses to the questions. However, the responses to the third round of Kahoot questions suggested that some students did not have an understanding of how to appropriately respond to individuals with ASD during specific situations. Nearly 20% of students responded incorrectly to the questions, indicating that some

adolescents possessed general knowledge of ASD but did not understand how to interact with individuals who have ASD.

Following each of the presentations, I sought informal feedback from students and administrators. While I did ask some students and teachers for feedback, many individuals actually approached me independently to offer their opinion and provide input about my presentation. For instance, one student stated that she “enjoyed that [my] presentation was interactive and that [I] asked specific questions about how to engage with people who have ASD, as this really furthered [her] understanding of ASD.” Additionally, another student said that she “enjoyed that [I] shared my personal experience about [my] nephew having ASD because it made the presentation more relatable and made [her] feel empowered to do a better job of being inclusive of one of [her] classmates who has ASD.” Lastly, a teacher expressed that she “thought [my] presentation was very informative and that [I] did a good job of keeping students engaged.” She also noted that my “questions were thought provoking and helped students learn.” Overall, these statements suggest that my presentation was engaging, informative, and inspiring. Therefore, based on the feedback I received from students and teachers, I believe that I accomplished what I set out to do. I informed neurotypical adolescents about ASD and provided strategies for how to engage in more meaningful interactions with those who have ASD.

While the feedback I received was overwhelmingly positive, there are considerations for future presentations should this project be repeated. Specifically, in the future I would focus more on discussing specific situations experienced by those with ASD and provide examples and model how students can help in those situations. At all three sites, most students had a general understanding of ASD prior to the presentation, so perhaps obtaining information about site specific student knowledge prior to developing the presentation would allow me to select

information tailored to meet the needs of students at individual sites. According to feedback from audience members and administrators, future presentations might also highlight specific ways in which students can change their behaviors in order to positively impact those with ASD. Finally, it would be beneficial for presentations about ASD to be delivered at larger, more diverse schools. All three sites were comprised of white students with similar backgrounds and experiences. It may be the case that students from racially, ethnically, and culturally diverse groups have had different experiences with individuals who have ASD; thus, increasing awareness among different groups would be an important next step.

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Appendix

Presentation Slides

Autism Spectrum Disorder

Presented By: Claire Meyer



A Little Bit About Me

- Russia High School 2019
- 2nd year Honors student at Bowling Green State University
- Communication Sciences and Disorders



Opening Activity

What do you know about
Autism Spectrum Disorder
(ASD)?

<https://create.kahoot.it/creator/ec291e39-2bed-4d8f-bbc0-c91368d5d9ec>

What is Autism Spectrum Disorder?

- Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder that affects individuals' social and communication skills
 - Neurodevelopmental = it affects the functioning of the brain
 - Differences in the brain are what cause individuals with ASD to think and function differently

How many people live with ASD?

- In 2016, the National Survey of Children's Health estimated that 1 in every 40 children between the ages of 3 and 17 have ASD



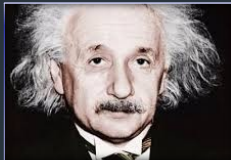
**A CHILD WITH DISABILITIES
OFTEN SPENDS HOURS
BEING TAUGHT HOW TO
INTERACT WITH OTHERS...**

**BUT WHY DON'T WE SPEND
TIME TEACHING THOSE
WITHOUT DISABILITIES HOW
TO INTERACT WITH THEM?**



about *life*
autism

Who are some famous people with ASD?



- **Alexis Wineman**
 - Miss Montana 2012
- **Adam Young**
 - Singer and creator of *Owl City*
- **Albert Einstein**
 - Famous Physicist
- **Dan Aykroyd**
 - Famous Actor

How can you tell if someone has ASD?

- Body Language
 - Lack of eye contact
 - Hand Gestures
- Maintaining Conversations
 - Bring up irrelevant or unusual topics
 - Zone out and are "in their own world"
- Reading Social Cues and Body Language
 - Don't notice if others are uninterested in what they're saying
 - Don't understand jokes and sarcasm

▶ How does the media portray ASD?



▶ This is ASD...



What can you do during interactions with people who have ASD?

- If you notice an individual with ASD struggling to understand others, **YOU** can:
 - Be straightforward and transparent
 - Be patient
 - Don't talk down to them
- If you notice an individual with ASD becoming frustrated during a conversation, **YOU** can:
 - Show interest in what they talk about
 - Help them if they're struggling

What can you do to make a difference?

- Initiate conversations
- Be inclusive. This means, include EVERYONE in activities inside and outside of school
- Be accepting of EVERYONE
- Be a good human. Show people that you care

What do I want you to take away from this presentation?

- People with ASD are people like you and me
- You can make a difference:
 - Recognize your peers who have ASD and be an advocate if needed
 - Be helpful
 - Be accepting and inclusive

Questions?