

University of New Hampshire

University of New Hampshire Scholars' Repository

Honors Theses and Capstones

Student Scholarship

Spring 2015

Friendships for High School Students: With Autism Spectrum Disorder and Without

Alanna Young
University of New Hampshire

Follow this and additional works at: <https://scholars.unh.edu/honors>



Part of the [Occupational Therapy Commons](#), [Other Mental and Social Health Commons](#), and the [Social and Behavioral Sciences Commons](#)

Recommended Citation

Young, Alanna, "Friendships for High School Students: With Autism Spectrum Disorder and Without" (2015). *Honors Theses and Capstones*. 239.
<https://scholars.unh.edu/honors/239>

This Senior Honors Thesis is brought to you for free and open access by the Student Scholarship at University of New Hampshire Scholars' Repository. It has been accepted for inclusion in Honors Theses and Capstones by an authorized administrator of University of New Hampshire Scholars' Repository. For more information, please contact Scholarly.Communication@unh.edu.

Friendships for High School Students: With Autism Spectrum Disorder and Without

Alanna Young

University of New Hampshire

May 14, 2015

Friendships for High School Students: With Autism Spectrum Disorder and Without

Abstract

People with Autism Spectrum Disorder (ASD) experience deficits in social communication, having difficulty with carrying on conversations, abiding by social norms, and feeling empathy towards others. As social skills are important for successful interactions, these deficiencies can decrease the number of friendships experienced by teenagers with ASD. However, it is also possible that other social barriers are involved, such as stigma, assumed by peers of teenagers with ASD. The influence of deficits in social interaction and stigma was examined through semi-structured interviews and focus groups, comprised of groups with teenagers with ASD and groups with typically developing teenagers. It was found that for typical teenagers, extracurricular activities are the basis for creating and maintaining friendships. Teenagers with ASD are less involved in extracurricular activities and also have more difficulty identifying friends desire more friends. It was also found that typical teenagers exhibit stigma towards peers with ASD. These qualitative results identify areas to target for improvement in social interaction skills of teenagers with ASD, promoting a more successful transition into adulthood.

Project History and Definition

Within the last few decades, the prevalence of Autism Spectrum Disorders (ASD) has risen dramatically, now with one in eighty-eight children identified as having an ASD (Autism Spectrum Disorders Data). Although the degree of impairments is varied among individuals, those with ASD often have some type of restrictive and repetitive behavior or interest, exhibiting patterned motor movements, inflexibility to the interruption of routine, and sensory processing difficulties. In addition, a primary deficit for those with ASD is difficulty with social interaction, as they experience challenges with understanding social cues, and display deficits with both verbal and non-verbal communication. For example, those with ASD may not maintain eye contact during conversation or fail to display appropriate facial expressions. Furthermore, they have difficulty understanding the perspectives of others, and therefore fail to share emotions or establish common interests. (American Psychiatric Association, 2013). Together, the key characteristics for the diagnosis of ASD indicate challenges with socially interacting with others.

Human nature is to judge the competency and character of others based upon how they present themselves in both verbal and non-verbal communication. For that reason, within a society that places high importance on abiding by social norms, deficits in social skills can be some of the most hindering differences displayed. Without social interaction skills, an individual with ASD may experience peer rejection, losing opportunities to engage in meaningful social relationships. Social skills are needed to create and maintain friendships in all areas of life: education, play, daily living with others, and employment. Deficits in social interaction can cause an individual to feel isolated and dejected, significantly decreasing overall quality of life (Davys & Tickle, 2008)

As social communication is a critical skill to successful life functioning, there is a large amount of research and intervention for young children with ASD, with the idea that early intervention will minimize the long-term impacts of the disability. However, there is a significant deficit in research regarding intervention for teenagers with ASD who are either approaching or amidst the transition into adulthood. During this time, a typically developing teenager is refining social skills and building strong connections with adults and other peers. On the contrary, the research that does exist about teenagers with ASD shows that these individuals have difficulty with maintaining friendships and facilitating normal interactions. For example, one study by Liptak, Kennedy, and Dosa (2011) found that within one year prior to the study, 55.4% of seventeen to 21 year olds with ASD had not gotten together with a peer once, and 63.9% had not been called on the phone by a friend. In a time when most are forming strong relationships, adolescents with ASD are often socially isolated, and are even more aware of their social differences than when they were younger (Daniel & Billingsley, 2010).

In addition to experiencing deficits in number of friendships, older adolescents with ASD also show differences in time use when compared to their typically developing peers. In a study by Orsmond and Kuo (2011), the time allocation of adolescents with ASD was studied, and participants were evaluated for the discretionary activities that they did most frequently and with whom they did the activities. Results revealed that 86% of adolescents watched television most frequently, and 51% used the computer. This compares to only 15% of participants who engaged in conversation during discretionary time. Results also showed that 82% of individuals in the study reported spending discretionary time alone. These findings are significant because Orsmond and Kuo noted that while typically developing adolescents spend a large amount of time socializing with friends, adolescents with ASD spend the majority of time alone.

Older adolescence is a time when one comes to understand social identity, spending a great deal of time interacting and building lifelong friendships with peers. However, research has shown that this is not true for adolescents with ASD, as they spend the majority of their discretionary time engaging in solitary activities (Orsmond & Kuo, 2011). Because those with ASD are often seen alone, the general assumption is that they prefer to live in solitude (Daniel & Billingsley, 2010). Unfortunately, the social perspective of adolescents with ASD has been minimally explored, and current research lacks first person viewpoints on how social worlds are experienced (Müller, Schuler, & Yates, 2008). Rather, the majority of research reports on data gathered from parents, and teachers, which is worthwhile, but does not provide the perspective of the individual with ASD (Posseurd, Breivik, Gillberg, & Lundervold (2013).

For the most part, research about the desires of adolescents with ASD regarding social communication from their own perspectives is very sparse. However, in 2008, Müller, Schuler, and Yates interviewed 18 older individuals with ASD to gather information about their social experiences. The researchers found that overall, their study participants did not prefer to be by themselves and experienced intense isolation. They reported having difficulty initiating social interactions, challenges with understanding communication norms, yet had a desire for intimacy, wanted to contribute to the community, and hoped to improve their social skills in the future. Through the firsthand perspectives of those with ASD, these results refute the common stereotypes that this population is cold, self-isolating, and unaware of their deficits (Daniel and Billingsley, 2010). The results are also extremely valuable because they show that young adults with ASD are not content with their current social standings (Müller, Schuler, & Yates, 2008).

The disparity between the desired friendships and actual number of meaningful relationships has been attributed to impairments in the individual's social abilities (Orsmond et.

Al., 2013). While social abilities certainly influence a person's abilities to engage with friends, it is possible that the deficiency in friendships is also due to a number of other social barriers. Few researchers have investigated the inhibitory effects of social stigma upon development of friendships between adolescents with ASD and their peers. Stigma is defined as a mark of shame associated with a particular quality of person. People with disabilities are often stigmatized, as others form impressions about their capabilities and personalities based solely on their diagnosis. People with ASD are stigmatized when they are assumed to be self-isolating and unemotional, and are in turn isolated for these traits (Shtayermman, 2009). A study by Gray (1993) found that the stigma against ASD can be worse than stigma against other conditions, because adolescents with ASD display behavioral abnormalities but no physical differences, causing peers to assign personal blame to the individual. However, no current research regarding stigmatization of ASD could be found. Information regarding the existence of stigma and its influence on friendships could help acknowledge the social barriers that prevent friendships from developing.

In conclusion, the diagnosis of ASD indicates that people with ASD experience difficulties with social interactions, having limited understanding of how to follow social norms and connect with others. Furthermore, as noted above, research has shown that those with ASD have fewer friends and spend more time alone than their typically developing peers. While recognizing that a lack of social interaction skills would decrease the amount of time with others, it is also possible that stigma plays a role. However, because limited research has been carried out, it is unclear how the lack of social interaction skills and stigma each hinder friendships for teenagers with ASD. Therefore, the factors that affect friendships for teenagers with ASD and peers of the same age were explored, from the perspective of teenagers with ASD and those who are typically developing.

Research Aims

1. Understand the perspective of teenagers with ASD regarding their friendships (number of friends, frequency of meeting with friends, activities that they do together).
2. Identify factors that support friendships and how these factors might occur
3. Identify factors that limit friendships with peers for teenagers with ASD
4. Identify beliefs that teenagers without ASD have toward those with ASD

Methodology

Participants

Two groups of participants were recruited for this study: teenagers with ASD, and typically developing teenagers. In order to fit the criteria for the study, all participants had to be between ages 14 and 18, and the participants with ASD had to have a formal diagnosis of ASD. There were sixteen participants, seven with a diagnosis of ASD and nine typically developing teenagers. Of the teenagers with ASD, six were male and one was female: Shelly, Evan, Connor, Liam, Mike, Tyler, and Josh. Of the typically developing teenagers, six were male and three were female: Daniel, Ed, Natalie, Jenna, Hannah, Sam, Will, Justin, and Fred. All participants have been assigned pseudonyms. Participants were recruited through letters and emails to high schools in the Seacoast area of New Hampshire

Data Collection & Analysis

To better understand the phenomenon of friendships between teenagers with ASD and their peers, a qualitative methodology was used. After receiving approval from Institutional Review Board at the University of New Hampshire, individual interviews or focus groups were

carried out with teenagers with ASD and typically developing teenagers. Interviews were conducted using a semi-structured format. Teenagers with ASD and typically developing teenagers were interviewed separately, and interviews were between twenty minutes and one hour in length. Each interview was audiotaped, using multiple recorders to ensure that all voices were captured.

When completed, the interviews were transcribed and coded using HyperRESEARCH, which is a qualitative analysis software program. The data was analyzed using strategies described by Creswell (2007), such as identifying patterns and themes in the data to address each specific research questions (i.e., the perspective of teenagers with ASD regarding friendships; factors that limit friendships; factors to support friendships; and views that teenagers without ASD have towards those with ASD). The data was cross-checked by Lou Ann Griswold, PhD, OTR/L, FAOTA.

Results

From the semi-structured interviews, a number of themes emerged, within four main categories: (1) Interests (2) Extracurricular Activities, (3) Friendships, and (4) Quality of Social Life. These categories are interrelated and can be used to explain the conclusions that were drawn from this study. In addition, the typical teenagers' perceptions of their peers with ASD were examined.

Interests

Interests to extracurricular activities. In order to gather a background on the study participants, the researcher asked each teenager, "What kind of things do you like to do?" When the participants' responses were coded and analyzed, a theme was noted. Both groups of

participants could identify interests; however, the majority of teenagers with ASD in the study were not expressing their interests through extracurricular activities while most typical teenagers were. For example, Sam, a typical teenager, reported an interest in photography and writing, and he is also involved in his school's newspaper club, through which he can employ those interests. In total, six of nine typical teenagers indicated a carry over of interests to extracurricular activities, in comparison to two of seven teenagers with ASD.

Extracurricular Activities

Amount of extracurricular activities. There is a significant difference in number of extracurricular activities between the teenagers with ASD and typical teenagers in the study. The typical teenagers reported many extracurricular activities: all were involved in at least one, and six of nine had at least four. The participants with ASD reported involvement in less extracurricular activities than the typical teenagers. Of seven participants with ASD, three were involved in only one extracurricular activity each.

Shared interests. For the majority of typical teenagers in the study, extracurricular activities promoted a feeling of connection to others. When asked, "What do you have in common with your friends?" answers involved some type of shared activity or shared interest. For example, Nicole said that what she has in common with her friends was "extracurricular activities...we're all in the same clubs." Sam attested to the contribution of extracurricular activities to the depth of his friendships when he said that "with the chemist society, we all really like chemistry, so we bond over that." Overall, seven of nine typical teenagers in the study indicated that having something in common with friends came through participation in extracurricular activities with them. In addition, participation in extracurricular activities supported the amount of times that the typical teenagers see their friends outside of school.

Although all typical teenagers in the study reported that they hang out with friends on weekends, the majority of their time spent together was after school at club meetings or sport practices.

The majority of participants with ASD were able to identify common interests with friends, however, these shared interests were shown to infrequently support connections and interactions with friends outside of school. For example, Liam responded to “What do you have in common with your friends?” with, “animals,” and also said that outside of school, he and his friends “like each other’s dogs.” However, Liam reported that the only friend he sees outside of school moved away, therefore, he does not see him often. Overall, four of seven participants with ASD do not see friends outside of school; it can be seen that although most participants with ASD do feel that they have something in common with their friends, these common interests are not supporting interactions.

Making friends. Extracurricular activities were a means to making friends for the typical teenagers in the study. Although the participants also said that they meet friends in classes or through being outgoing and nice, five typical teenagers in the study reported creating friendships through having similar interests or participating in the same extracurricular activities. Will said, “Once you start getting into more activities, you start to get a lot more friends.” Similarly, Justin said that “if you meet the person doing something you both like then it’s easy, because it’s like, we should probably do this again sometime.” For the typical teenagers, becoming involved in clubs and sports supported the creation and maintenance of friendships.

The teenagers with ASD in the study were also asked to describe how they make friends. They identified a number of strategies, including meeting friends in classes, being introduced by other friends, showing interest in others, and utilizing social scripts. However, it is noteworthy that the teenagers with ASD in the study do not make friends by having something in common

with others. For example, Tyler said he makes friends “by meeting them and asking them what they like.” The majority of participants with ASD are not involved in extracurricular activities, providing less opportunities to meet others and make a connection through a shared interest.

Friendships

Amount of friends. There was a disparity seen in the number of friends reported by the participants with ASD and the typically developing teenagers. When asked, “Could you tell me the names of your friends?” the typical teenagers in the study could list between six and eighteen friends. The participants with ASD had variable responses to this question. Two participants with ASD could not name any friends, and two named only one friend. Another listed seventeen names, but when asked which of those friends that he saw outside of school, could not provide an answer to the question. It was seen that overall, the participants with ASD struggle to identify friends.

Wanting more friends. The participants with ASD were not able to report as many friends as the typically developing teens, and this is significant because this group also expressed a desire for more friends. When asked, “Do you ever wish you had more friends?” four of seven teenagers with ASD in the study responded with “yes,” and one said, “sometimes, because I have nothing to do at times.” In comparison, the majority of typical teenagers in the study were satisfied with the number of friends that they have; six of nine said that their friends hang out enough, and two other said they only wish to have more friends when they are bored and all friends are busy.

Quality of Social Life

Discretionary time use: extracurriculars versus videogames. The discretionary time use of the participants with ASD and the typically developing teenagers differed greatly. All

typical teenagers in the study reported spending time after school with friends at club meetings or sport practices, which positively influences their social lives. Sam demonstrated the importance of after school time with friends when he said, “Track is a big part of my life...I’m with [my friends] more often and I have a better relationship with them than when I don’t have track.” Although only two typical teenagers in the study reported hanging out with friends after extracurricular activities on weekdays, the majority still stayed connected to one another through social media and texting. In regards to texting, Natalie said, “If I’m not talking to someone, then I feel like it’s weird, that I’m not having a conversation with at least one person.” Overall, it was seen that the discretionary time of the typical teenagers was social, through participation in extracurricular activities or connecting with others over social media and texting.

In comparison, the majority of teenagers with ASD in the study indicated that discretionary time use is often spent alone while playing videogames, using the computer, or watching TV. This is illustrated by Connor who said that when he goes home after school, he listens to music and goes on the computer. Technology was a prominent interest and time filler amongst all teenagers with ASD in the study. While the typical teenagers in the study report seeing friends at extracurricular activities after school, the majority of participants with ASD spend discretionary time alone and use technology.

Outlier: Shelly

It is important to note that while the majority of the participants with ASD were not involved in extracurricular activities, did not have interests with friends that facilitated interactions, struggled to name friends, and desired more friends, there was one outlier in this group. Shelly is a teenager with ASD who reported an interest in anime, role playing, and online videogames, and she participated in a videogame club at her high school. Shelly was the only

participant with ASD in the study who could name many friends and provide anecdotes describing time spent with friends outside of school. Shelly's extracurricular activity has been very influential in building her social life. She reported making friends and meeting her boyfriend through videogame club. Having friends with shared interests has been very important to her overall well-being. She illustrated this when saying, "If I didn't have friends in school I wouldn't be able to talk...I have friends that relate to me so it's easier to socialize in school." Shelly is an example of the success that can occur when a teenager with ASD has built a social network through an extracurricular activity.

Typical Teenager Perceptions of ASD

To understand the beliefs that are held about the ASD diagnosis, the typical teenagers in the study were asked questions about their peers with ASD. The participants were first asked, "Do you know what ASD is?" and it was found that eight of the nine typical teenagers could not define Autism. There was a lack of ability to differentiate the diagnosis from others, exhibited when one participant said, "I don't know the differences between Autism and Down's syndrome." Other participants indicated that they had never been taught about the diagnosis. Will said "I haven't learned much about it, to be honest." However, when asked what a person with ASD may be like, the typical teenagers made negative assumptions about their peers. One participant said that a person with Autism "may be looking down and needs an aid." Another participant said, "they seem kind of off...some of their behaviors are out of context" and "it takes them longer to process things." The majority of the participants seemed to have negative perceptions of individuals with ASD.

After the interviewer described ASD to the typical teenagers, they were asked to identify any peers with ASD in their high school or community. It was found that most knew very few

peers with ASD. The participants could identify by name only between one and three individuals who they thought may have ASD. Daniel said, “There’s one person in my gym class but again I can’t tell the difference...whenever we change in the locker room, he always talks to himself...I tried to say hi one time, and he said hi but he kind of looked straight at the ground.” Similarly, the majority of participants said that they rarely interact with peers with ASD. Seven of nine typical teens said that relationships with teens with ASD consist only of a greeting in passing, or small talk. Participants also reported that conversations with peers with ASD are difficult to maintain. Fred said, “They’ll just kind of up to me, start talking about something irrelevant...I just kind of agree with them, try and seem nice, and then walk away.”

Although typical teens in the study reported a minimal understanding of the Autism diagnosis and few interactions with peers with ASD, they also carried negative ideas about the diagnosis. The participants perceived their peers with ASD as segregated within the high school. Sam said, “I feel like they’re kind of secluded from the regular classroom...I’m in more advanced classes...not that I’m saying they’re stupid or anything, but maybe they wouldn’t be in my classes.” Similarly, Hannah said, “We don’t really see them on a daily basis because they’re with their special people.” There was a belief among the participants that peers with ASD would not have the capability to be integrated into the regular classroom, or that they would always be working with paraprofessionals.

Among a number of other negative perceptions, the typical teenagers in the study demonstrated beliefs that their peers with ASD do not or could not have friends. Three participants thought that their peers with ASD do not have friends or do not understand the concept of friendship. Justin said, “I think that they would definitely like some friends, but I feel like too many friends...would not necessarily be the best of things,” showing that he does not

believe they could handle friendship. Another participant said, “I don’t even know if some people understand the process of hanging out after school.” Three other participants perceived the Autism and disability community as isolated, demonstrated by one who said, “the good thing is...they always like get really excited when they see each other, so it’s good that they at least think or know that they have each other.” Few participants could think of a friendship between a typical high school student and a peer with ASD.

Discussion

This study contributes to a growing body of literature providing information about the way that high school aged individuals with ASD perceive their social lives, in comparison to typically developing students. It is particularly valuable because it provides the perspective of the students themselves, and identifies a number of problems in the way that typical high school students perceive their peers with ASD.

According to the qualitative data of this study, it appears that although teenagers with ASD can identify interests, their interests are infrequently being expressed through extracurricular activities. This is noteworthy because for typical teenagers, extracurricular activities support friendships. Club meetings or sport practices allow teenagers to work together many times per week around a common interest, which creates friendships and facilitates feelings of connectedness. When teenagers with ASD do not participate in activities with friends around common interests, there are fewer opportunities to create friendships.

Teenagers with ASD have difficulty naming friends and infrequently see friends outside of school. In addition, they spend discretionary time using technology alone rather than with friends. These results are similar to those of previous studies, which found that many older youth

with ASD do not see friends after school and spend the majority of discretionary time alone. In comparison, typical teenagers spend discretionary time with friends, primarily during extracurricular activities. However, even after club meetings and sport practices are finished, typical teenagers stay connected with friends through technology such as social media and texting. This is comparable to the technology use of teenagers with ASD, which is solitary.

Typical teenagers desire more friends but do not have concrete ideas of how to create friendships in the future. Being surrounded by individuals with similar interests, through extracurricular activities could be influential towards building the social networks of teenagers with ASD. This would mean that these individuals would spend less time alone and feel more connected to their peers. Building a social network is also extremely important given the coming transition to adulthood for this population. Having the ability to work on social skills and maintain social relations will help individuals with ASD be more successful in all areas of life.

In addition, typical teenagers lack knowledge of the ASD diagnosis, and exhibit stigma towards ASD. According to Shtayermman (2009) ASD stigma is when based upon knowledge that the ASD diagnosis causes difficulty with social interaction, negative assumptions are created about the social lives of individuals with ASD. The typical teenagers in the study do not really know what ASD is, but they have beliefs about the friendships of their peers with ASD. They assumed that their peers with ASD do not have friends, cannot handle friends, do not understand the concept of friendship, or are only friends with others with disabilities. These beliefs are limiting, creating a barrier between teenagers with ASD and their typically developing peers.

Implications for Intervention

This study provides information that may be valuable to future occupational therapists providing intervention for teenagers with ASD who struggle with friendships and social interaction. Through this study, it is seen that involvement in an activity with individuals who have similar interests is valuable to improve one's social life. In order to promote more involvement, the occupational therapist may work to improve skills, create a more inclusive environment, and promote opportunities. Specifically, improving skills would mean targeting specific social interaction skills and practicing the skills in context, so that the teenager with ASD is more comfortable interacting with peers. Creating a more inclusive environment would involve educating high school students about the ASD diagnosis, so that these individuals would be more accepted and included within the high school. Finally, creating opportunities could include working with the teenager with ASD to identify leisure interests, advocating for his/her involvement in programs, and supporting the individual through the process of becoming involved.

Limitations

The participants in this study were self-selected, which may be a limitation because they may have had previous interest or knowledge in the topic. In addition, this study represents a small geographic area, meaning that the results may not be generalizable to teenagers in other areas of the country.

Acknowledgements

Thank you to the teenagers with and without ASD who shared their perspectives for this study, and the high school personnel who helped to coordinate interview times. Also, thank you

to the Hamel Center at the University of New Hampshire for providing a Summer Undergraduate Research Fellowship, through which this study was made possible. I also wish to acknowledge the Research Affinity Group of the College of Health and Human Services at the University of New Hampshire, for providing funds for refreshments. Finally, thank you very much to my faculty mentor, Lou Ann Griswold, for her continued support and encouragement throughout the research process.

References

- American Psychiatric Association (2013). Autism spectrum disorders. Retrieved February 18, 2014 from <http://www.knittingonthenet.com/patterns/socksbasic.htm>
- Autism Spectrum Disorders Data & Statistics (2013, Dec 26). In Center for Disease Control and Prevention. Retrieved February 18, 2014 from <http://www.cdc.gov/ncbddd/autism/data.html>
- Davys, D., & Tickle, E. (Aug 2008). Social inclusion and valued roles: A supportive framework. *International Journal of Therapy and Rehabilitation*, 8, 358-363. Retrieved from [file:///C:/Users/LocalUser/Downloads/Social%20inclusion%20framework%20\(1\).pdf](file:///C:/Users/LocalUser/Downloads/Social%20inclusion%20framework%20(1).pdf)
- Daniel, L. S., & Billingsley, B. S. (2010). What boys with an autism spectrum disorder say about establishing and maintaining friendships. *Focus On Autism And Other Developmental Disabilities*, 25(4), 220-229. doi:10.1177/1088357610378290
- Gray, D. E. (1993), Perceptions of stigma: the parents of autistic children. *Sociology of Health & Illness*, 15(1), 102–120. doi: 10.1111/1467-9566.ep11343802
- Liptak, G. S., Kennedy, J., & Dosa, N. P. (2011). Social participation in a nationally representative sample of older youth and young adults with autism. *Journal Of Developmental And Behavioral Pediatrics*, 32(4), 277-283. doi:10.1097/DBP.0b013e31820b49fc
- Müller, E., Schuller, A., Yates, G. (2008). Social challenges and supports from the perspective of individuals with Asberger syndrome and other autism spectrum disabilities. *The*

National Autistic Society, 12(2), 173-190. Retrieved from
<http://aut.sagepub.com/content/12/2/173.full.pdf+html>

Orsmond, G. I., & Kuo, H. (2011). The daily lives of adolescents with an autism spectrum disorder: Discretionary time use and activity partners. *Autism*, 15(5), 579-599.
doi:10.1177/1362361310386503

Orsmond, G. I., Shattuck, P.T., Cooper, B. P., Sterzing, P. R., & Anderson, K. A. (2013). Social participation among young adults with an Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*, 43, 2710-2719. doi 10.1007/s10803-01301833-8

Posserud, M.B., Breivik, K., Gillberg, C., & Lundervold, A. J. (2013). ASSERT—The Autism Symptom Self-Report for adolescents and adults: Bifactor analysis and validation in a large adolescent population. *Research in Developmental Disabilities*, 34, 4495-4503.
doi.org/10.1016/j.ridd.2013.09.032

Shtayermman, O. (2009). An exploratory study of the stigma associated with a diagnosis of Asperger's syndrome: The mental health impact on the adolescents and young adults diagnosed with a disability with a social nature. *Journal Of Human Behavior In The Social Environment*, 19(3), 298-313. doi:10.1080/10911350902790720