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CHARACTERIZATION OF AUTISM SPECTRUM DISORDERS
IN CHILDREN'S PICTURE BOOKS

by

Charlene Weaver

A thesis submitted to the faculty of

Brigham Young University

In partial fulfillment of the requirements for the degree of

Master of Science

Department of Counseling Psychology and Special Education

Brigham Young University

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BRIGHAM YOUNG UNIVERSITY

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BRIGHAM YOUNG UNIVERSITY

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ABSTRACT

CHARACTERIZATION OF AUTISM SPECTRUM DISORDERS IN CHILDREN'S PICTURE BOOKS

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Master of Science

Forty-two children's picture books portraying characters with Autism Spectrum Disorders (ASD) were evaluated to determine how symptoms of ASD are being portrayed as well to determine common themes found in these books. Books were evaluated using behavioral checklists created using symptoms found in common ASD diagnostic rating scales for both autism and Asperger Syndrome (AS). Of the 42 books, 35 books had characters with autism and 7 had characters with AS. The most commonly found symptoms were relating to people, verbal communication, and taste, smell and touch responses. Personal characteristics such as gender and race were identified as well as other common themes: point of view and changes in characters with autism. Overall characters are being displayed realistically and positively. This study is relevant to teachers, librarians, and others who are interested in how accurate portrayals of individuals with autism in children's literature may help them be accepted in society. A list of books used in this study is located in the appendix.

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INTRODUCTION

Sinister, dangerous, pathetic, dependent, and occasionally as overachieving, individuals with disabilities are defined by the media (Bogdan, Biklen, Shapiro, & Spelkoman, 1982; Safran, 1998; Thurer, 1980). These are the images individuals remember after seeing films or reading books depicting those with physical, emotional, or intellectual disabilities. Regardless of whether these depictions are realistic or sensationalized, the audience remembers the manner in which individuals with disabilities are portrayed. In particular, images portrayed in films and literature evoke emotion, solidly anchoring perceptions in memory.

Portrayal of Disabilities in the Media

Disabilities are often used as metaphors to describe a character's inner traits (Bogdan et al., 1982; Dyches, Prater, & Cramer, 2001; Thurer, 1980). Merriam-Webster's online dictionary defines metaphor as a "figure of speech in which a word or phrase literally denoting one kind of object or idea is used in place of another to suggest a likeness or analogy between them" (www.m-w.com). Metaphors can be used for a variety of reasons: to enliven ordinary language, to catch the reader's attention and encourage thoughtful interpretation as well as to economize words and efficiently give meaning with minimal explanation (Online Writing Lab, n.d.). Unfortunately, metaphors used in many movies and literary works portraying characters with disabilities offer stereotypes with negative connotations. They provoke feelings of disgust, evil doings, or maybe even pity. For instance, Thurer suggests, "bodily intactness and glowing health are almost exclusive characteristics of the good and noble, while physical infirmities are reserved for the evil

and malevolent” (1980, p.12). Physical attributes as well as other disabilities have been used metaphorically to show inner qualities of the individuals (Thurer, 1980).

A classic example of this metaphoric use is the fairy tale *Snow White and the Seven Dwarfs*. Snow White is fair, beautiful, and good. Her outward beauty enhances her inner qualities of kindness and innocence. However, the queen’s outward appearance depicts the opposite end of the spectrum. In fact, when she sets out to complete her evil tasks, her evil nature is intensified by her outward appearance: an ugly, hunchbacked, wart-nosed, witch (Bogdan, et al., 1982; Thurer, 1980).

The example of Snow White is one of many. In *The Wonderful Wizard of Oz*, (Baum, 2000) Glinda the good witch, dressed in her elegant white gown, is perfectly poised and radiates light, warmth, and goodness. She speaks in soft tones, and everyone comes out to greet her. She is kind and considerate of helping those around her. Contrast this with the Wicked Witch of the West, luminating green skin, large hooked nose, shabby black dress, and overall dark appearance. Her harsh voice frightens those around her. They run to hide from her. Once again, characters’ inner virtues are expressed through outward appearances.

While these two examples do not portray evil characters as having disabilities, such depictions exist, and sometimes characters with disabilities are treated poorly. For example, the Hunchback of Notre Dame (Hugo, 1981) is sent to live in the top of the cathedral because of his physical differences. As a child, the Phantom of the Opera (Leroux, 1990) is hated by his parents because of his deformities. He is a part of a circus for gawking audiences to mock. Eventually he becomes a monster, matching his outward appearance.

The use of disabilities in metaphors may seem innocent enough: it is, after all, a great literary technique to arouse feelings. The problem is that it attracts attention and can cause harm to those with disabilities. It strengthens and perpetuates stereotypes and labels that limit the acceptance of people with disabilities and what they are capable of doing.

On the other hand, literature has the potential to provide accurate information about individuals with disabilities. In order to break down false perceptions and to create a feeling of acceptance, books need to accurately portray individuals with disabilities and be used in a structured context where discussion and related activities can reinforce the realities of disabilities (Safran, 2000). Literature's accurate, realistic portrayal of disabilities will assist in combating the perpetuation of stereotypes.

Cultivating Acceptance of Disabilities

As a society, it is important to cultivate an attitude of acceptance for those with disabilities in our communities. In the past individuals with disabilities, especially those with severe disabilities, were not accepted into society. Often segregated from families and communities, they were set apart to live in institutions, hidden from others. Over the years however, and with the passage of the Education for all Handicapped Children Act (1975) and with the Americans with Disabilities Act (1990), individuals with disabilities have become more visible and prominent in our communities, and have been given rights afforded to *all* citizens.

Today, children with disabilities in the United States are offered a free and appropriate public education in the least restrictive environment. While this might not have been common 40 years ago, today it should be acceptable for students with disabilities to be taught in the same classroom as their nondisabled peers and to be given

accommodations to help them learn and succeed in the general curriculum. The problem this poses is that their peers do not always know how to interact with their peers with disabilities, or to understand why they might act in unusual ways, look different, or why they can't communicate in the same way as their peers.

Young children especially will have interactions with their peers with disabilities, as preschools and kindergartens are often inclusive environments. These young children are also susceptible to the attitudes of not only their parents and families, but also what they see on TV or the images portrayed in books. To promote successful interactions between those with disabilities and their nondisabled peers, media portrayals of individuals with disabilities need to be accurate and show the character in real life situations, interacting with a variety of people.

Statement of Problem

One group of students with disabilities who are commonly being included in preschools, kindergartens, and school classrooms are those with Autism Spectrum Disorders (ASD). The number of students with autism in schools has increased drastically since the early 1990s. In fact, from 1991 to 2005 the number of students with autism increased by over 183,000 bringing the number of students with autism served in special education to 192,881. (U. S. Department of Education, 2006). These children are being included as much as is appropriate in regular education settings.

Nondisabled peers need to know what it means to have ASD and to know that those with ASD can do and enjoy many things. They can have successful relationships with others, make choices, and grow and develop through their experiences. Children without disabilities need to learn to interact with and include those with ASD and this

begins by helping them have positive interactions with and attitudes about those with ASD.

The use of children's literature is one way to help develop positive attitudes about those with ASD. Literature is a central component in educational settings and has the potential to teach children information about ASD and how they can relate to those with ASD. In order for children's literature to be a positive experience, the depiction of ASD needs to be realistic and positive.

Purpose of this Study

The purpose of this study is to evaluate the portrayal of characters with ASD in children's picture books. More specifically the purpose is to identify the symptoms of ASD that are being portrayed in children's picture books and to identify the common themes found in these books related to personal characteristics, point of view from which the story was told,

Research Questions

The following questions will be researched:

1. How are the symptoms of ASD portrayed in children's picture books?
2. What are common themes of ASD found in children's picture books?

REVIEW OF LITERATURE

This section begins by reviewing how books have been used as interventions in helping build acceptance of students with disabilities and why books are a good intervention. It then discusses how disabilities have been portrayed in the literature and what makes quality literature. Finally, Autism Spectrum Disorders (ASD) are reviewed specifically, including how ASD has been portrayed in children's literature.

Using Children's Books to Promote Acceptance

Children's books have been used as a possible means to help build acceptance of students with disabilities among their peers. Using books alone may not be enough, though. Beardsley (1982) found that reading children's books to third grade students had little effect on changing attitudes about children with disabilities. Salend and Moe (1983) in a similar study with fourth through sixth graders also found that using books alone had no significant effect in changing attitudes.

A more successful approach than just reading books was using children's books about children with disabilities in conjunction with activities that highlight the critical points to be learned about the various disabilities (Salend & Moe, 1983). Having the opportunity to ask questions about disabilities was also shown to enhance attitude change and permanence of attitude change. Possible reasons for the effectiveness of this approach are that it decreases uneasiness and increases children's knowledge about disabilities.

Trepanier-Street and Romatowski (1996) examined young children's attitudes toward those with disabilities and found that books can be an effective intervention in promoting positive attitudes when coupled with related activities. This study examined

kindergarten and first grade students' attitudes towards their peers with disabilities. After reading children's literature and having discussions and related activities, Trepanier-Street and Romatowski found a 66% increase in what the children thought their disabled peers could do and a 13% increase in the number of children who thought a child with a disability could be their friend.

Favazza and Odom (1997) found that the attitudes of kindergarten-age children without disabilities could be influenced through interaction and the use of children's books portraying characters with disabilities. This intervention, similar to the others, showed that those students who had personal contact and guided discussions during story time had the highest increase in acceptance compared to those who were read children's books about characters with disabilities but had no discussion or structured activities related to the story, and compared to those who were not exposed to the children's literature and had no contact with peers with disabilities. Anecdotal notes from this intervention also showed a change in children's behavior toward their peers with disabilities. They interacted with them more at a closer proximity, showed more affection, increased communicative attempts with their peers, asked more questions spontaneously about individuals with disabilities and stopped by the special education classroom more often to say "hello" to the students.

Reasons to Use Children's Books

There are several reasons why books can be used as interventions to help children learn about those with disabilities. Books are simple interventions that are inexpensive and effective (Baskin & Harris, 1984; Salend & Moe, 1983; Sipsas-Herrmann et al, 1996; Trepanier-Street & Romatowski, 1996). Furthermore literature is a central component to

curriculum that teachers already use. It is cost- and time-effective because it does not take much additional training and resources to prepare teachers to use books as interventions. Stories can be adapted to meet the needs of the class through planned activities and discussions (Trepanier-Street & Romatowski, 1996). Books can be used as a main activity or supporting other activities, and can fit into small increments of time, thus making the use very flexible and adaptable to class schedules and class needs (Baskin & Harris, 1984). In addition, stories can help students with disabilities relate to characters in the books and can be used to teach social skills.

Portrayal of Disabilities in Children's Literature

This section will review how disabilities have been portrayed in children's literature. The frequency of books that include characters with disabilities will be discussed as well the types of disabilities that have been portrayed. Finally, the common themes found in literature about people with disabilities are discussed.

Frequency of Books on Disabilities

Several studies investigate the growth in the number of books that portray characters with disabilities over the years, starting as far back as the 1940s. One study in particular examined disabilities in books from the 1940s to the 1980s (Carlisle, 1997). This study found small increases in the number of books written about characters with disabilities until the 1960s. From 1966 to 1975 (when the Education for All Handicapped Children Act was passed) there was tremendous growth in the number of books written. In this 9-year span there were twice as many books written as the previous 26 years. The growth escalates exponentially after this time period. Baskin and Harris, in their review of literature in their first book (1977), note 311 books written from 1940-1975 and in

their second book (1984) they showed 348 books written in only six years, from 1975-1981.

Types of Disabilities Portrayed

What types of disabilities were portrayed most often in books containing characters with disabilities? One study found that before 1975, most books portrayed characters with physical or visual disabilities (Carlisle, 1997). After 1975, these two disabilities were still the leaders but more disabilities began to emerge: hearing impairments, epilepsy, cerebral palsy, learning disabilities, allergies, AIDS, cancer, and autism.

Another study reviewed books published before and after 1978 specifically to look at the effects of the Education for All Handicapped Children's Education Act (Public Law 94-142) on the types of disabilities portrayed, and found similar results (Harrill, Leung, McKeag, & Price, 1993). Public Law 94-142 pushed for teaching students with disabilities in the least restrictive environment, which often included regular classrooms and schools. This study examined 15 books published prior to the passing of the law and found that visual impairment and physical impairment were written about most often, with five and four books written respectively. Two books each were written on intellectual disabilities and learning disabilities, one book mentioned epilepsy, and one mentioned emotional disabilities.

The 30 books published after 1978 reviewed in this study continue to show visual and physical impairments most often, with an increase in books about hearing impairments, intellectual disabilities, and learning disabilities and with several more

disabilities and medical conditions emerging: leukemia, terminal illness, diabetes, speech impairments, asthma, and dyslexia (Harrill et al., 1993).

Ayala (1999) reviewed 59 books written from 1974-1996 that portrayed characters with disabilities in an attempt to verify previous studies and to pick out new emerging patterns. She also found that orthopedic impairments were written about most often with 22% of the books reviewed portraying this disability. She also noted, however, that there are only a few books portraying orthopedic impairment as the sole disability published after 1989 and she postulates that this trend may be coming to an end. Visual impairments represented 14% of the books reviewed and seemed to stay consistently represented over the 22-year time span. This study revealed that more recent books (1989-1996) include characters with multiple disabilities, learning disabilities, medical concerns, autism, and attention deficit disorder.

It is interesting to note that orthopedic impairment and visual impairment represent the highest percentage of disabilities written about, especially since these disabilities are low incidence disabilities. In data going back to 1989, orthopedic impairments accounted for 1.1% of the students and visual impairments accounted for .5% of the students with disabilities served in school settings (U.S. Department of Education, 2006). It is easier to portray characters with these disabilities than to portray those with mental retardation, which accounted for 12% of the population served at that time. To portray an orthopedic impairment authors and illustrators can show a person in a wheelchair, using a cane, or using a walker to help with mobility. To show someone who is blind or visually impaired, illustrators can depict a character walking with a cane or with a guide dog, or wearing glasses. How do illustrators portray someone with mental

retardation who is characterized as slow or someone with autism that looks like everybody else, with no outward physical differences, but who acts different or thinks different? It is more challenging to portray, particularly in picture books, yet these disabilities are becoming more prevalent. These students are being educated in schools with their general education peers more frequently and it is therefore important that authors and illustrators are depicting these children with “invisible” disabilities accurately.

In 2005, hearing, orthopedic, and visual impairments remain low incidence disabilities, accounting for 1.1%, 1%, .4%, of the population served in special education respectively (U.S. Department of Education, 2006). While autism is also a relatively low incidence disability, the number of students with autism is increasing. In 1991 there were 9,862 students, or .22% of the population served in special education, under the category of autism and in 2005 those numbers increased to 192,881, or 3.2% of the population served (U.S. Department of Education, 2006). That represents over 183,000 more students in a 14-year time frame.

Common Themes in Children's Literature

As mentioned earlier, one aspect of good literature is to have a strong theme. A theme is an idea that is embedded throughout the story. When reviewing children's literature that includes characters with disabilities, it is important to note the themes that are being portrayed. Dyches, et al., (2001) and Dyches and Prater (2005) have identified several themes that appear in children's literature which includes characters with developmental disabilities, including those with ASD. Some of the common themes are

relationships among characters, change in characters without disabilities, and change in the character with disabilities.

Relationships. Relationships are important for everyone. While reviewing books which include characters with developmental disabilities, researchers noted six types of relationships among characters (Dyches & Prater, 2005; Dyches, et al., 2001). First is the primary relationship or the strongest relationship in which the character with a disability has with another character. This is most often with a sibling, friend, or parent. These characters often share common experiences.

Second is the victim, perpetrator, and/or protector relationship. Sometimes characters with disabilities are portrayed as victims. They are the target of teasing and name-calling because of their differences, and occasionally they are abused. They have a relationship with those that make fun of them and with characters who may try to protect them. A protector might prevent people from harassing them or by shielding them from tasks or situations that are difficult.

A third relationship is that of dependent and caregiver. Dependence is another characteristic often identified with individuals with disabilities. Characters are shown needing the support and help of other characters, usually those with whom they have the primary relationship.

The fourth relationship is friendship. Half of the characters in children's books identified with developmental disabilities by Dyches and Prater (2005) enjoyed some type of reciprocity with another character, typically a peer.

Fifth is the pupil and instructor relationship. A common place for children's books is in a school setting which leads to the character being a student in a class, and

thus having a relationship with a teacher. In addition, learning takes place on many levels at home, work, and play as characters interact with others both through direct teaching moments and through personal examples.

Finally, is the relationship of fear of association. There are stories in which characters without disabilities are afraid to be associated with those that have disabilities. These relationships occur with peers, community members, family members, and even others with disabilities.

Changes in characters without disabilities. Another common theme in children's literature with characters with disabilities is using those with disabilities to promote change in others. Change occurs in several ways. The characters without disabilities may have improved feelings towards those with disabilities. Through interactions in the books, peers learn to appreciate and understand those that may have differences. Other characters maintain their feelings towards those with disabilities, usually those characters who victimize others (Dyches & Prater, 2005).

Changes in characters with disabilities. Some characters with disabilities also change. This change is desired and represents a positive depiction. These changes have been due to a big event such as being given the ability to fly, although this is unrealistic, or because the character sought a change, such as wanting to be normal like everyone else, or trying to fit in by dressing and acting like those without disabilities (Dyches & Prater, 2005). Unfortunately characters with disabilities are not often portrayed making changes in their lives or the changes are often minor.

Literary Quality

While it is important that more books are being written now than in previous decades about disabilities, the sheer number of books is not sufficient. These books also need to be well written and accurately depict people with disabilities. Good literary techniques should be utilized as in any children's book. Aspects of good children's literature include characterization, setting, plot, and theme (Dyches & Prater, 2000; Norton, 1995; Sawyer, 2000).

Characterization

“Characterization is one of the most powerful literary elements” (Norton, 1995, p. 107). It has the capacity to help readers identify with the characters and to learn from them. In order to develop credible characters, several areas need to be considered. Characters should be portrayed realistically, and positively, and they should develop as the story progresses. In addition, good characters are needed on all levels, main and supporting, and good stories can be told from a variety of perspectives or points of view.

Realistic portrayals. Good characters stick out to the reader as being real and lifelike. They develop as the story progresses and show both the characters' strengths and weaknesses. Good characters are “credible, consistent, and multidimensional” (Dyches & Prater, 2000, p. 9).

First, to be credible or realistic, a character's actions, thoughts, and speech must be true to the role they are playing. The character's personality and motivation should be evident through their thoughts, words, and deeds. A character with autism therefore must have characteristics common to autism and should be expressed through their personality and motives. For example, in *A Curious Incident of the Dog in the Night-Time* (Haddon,

2003), Christopher, who has autism, demonstrates strict adherence to nonfunctional rituals or routines as he counts the number of yellow or red cars that travel by on his way to school. Yellow means it will be a bad day, and red means it will be a good day. Because of his adherence to rules he has set for himself, Christopher sees four yellow cars in a row on his way to school he will not speak.

Second, it is also important for characters to be consistent throughout the story. Characters should act according to their age, culture, and abilities (Huck, Helper & Hickman, 1993). Character's reactions should seem natural given their personal characteristics. While change in characters is desirable as the story progresses, their personalities should not be totally different because of their experiences (Sawyer, 2000).

Third, good characterization focuses on many attributes of a character. Rather than focusing solely on race, religion, ability, sex, or age, good characterization focuses on many attributes of a character, both external and internal. A character is developed as the story progresses with many attributes being displayed. A character is developed through their thoughts, words, and deeds as well as other people's thoughts about them (Huck et al., 1993, 24; Norton, 1995; Sawyer, 2000). Multidimensional characters are desired and allow the reader to discover the character rather than having characters labeled. If one characteristic is overemphasized, such as a disability, the portrayal becomes stereotyped.

Stereotypes in literature do not fully develop the character with a disability. A stereotyped is "a widely held but fixed and oversimplified image or idea of a particular type of person or thing" (Dictionary, 2005). Stereotypes harm individuals with disabilities by oversimplifying their disabilities, and most often by not including their

strengths and individual characteristics. While there may be common defining characteristics of a disability, the individual still needs to be considered. Literature needs to show a whole person, not just common characteristics. A person with a disability has likes and dislikes, has relationships with family and friends, interacts in a variety of situations such as in the home, school, community, and work environments, and has good and bad experiences, just like anyone else. When portraying a character with a disability, it is important to include elements that make the individual unique and not just stereotypical.

Common stereotypes in media and literature as identified by Biklen and Bogdan (1977) are: a) pitiable and pathetic; b) the object of violence; c) sinister or evil; d) an enhancement to the atmosphere of the book; e) “super cripp”; f) laughable; g) his/her own worst enemy h) a burden; i) nonsexual; and, j) incapable of fully participating in everyday life. It has been suggested that portrayals of autism need to more closely reflect the day-to-day realities of living with autism, and not the superhuman strengths or abilities of the rare savant.

One study found that 63% of the books reviewed showed the character with a disability as a hero, or a “brave little soul,” 10% showed the characters as victims, one book showed the character as being villainous, and 20% depicted characters with disabilities in realistic terms (Ayala, 1999).

Character development. Another aspect of good characterization is character development. As previously mentioned, good, multidimensional characters are discovered as the story progresses. In this process, characters should also be shown overcoming challenges. Characters should progress because of the experiences they have.

Characters can be described as static or dynamic. A static character does not change or progress throughout the story. This is undesirable. A dynamic character is positive and changing. These characters mature as the story develops, learning from their experiences. They do not completely change their personalities or become totally different, but they do change and grow. Good character development assists in positive portrayals.

Positive portrayals. As society continues to include more individuals with disabilities into society it is important that positive portrayals of disabilities be included in literature. Positive portrayals can help readers to better understand disabilities and overcome any prejudices or misbeliefs they may have held about people with disabilities and diminishes stereotyping people with disabilities. What does a positive portrayal look like? Six values have been identified as being important aspects of positive portrayals. These values are “(a) envisioning great expectations, (b) enhancing positive contributions, (c) building on strengths, (d) acting on choices, (e) expanding on relationships, and (f) ensuring full citizenship” (Dyches & Prater, 2000, p. 6). A brief description of each value follows.

The first value is envisioning great expectations. People with disabilities are capable of accomplishing many great things in life. Family members and those who work with them should help individuals to strive to be as independent as possible and reach goals. When people describe people by their disability, and stereotype them, they may be limiting the expectation for them by thinking that they can't do something because of their disability. This situation can be rectified by using “people-first” language and referring to the individual as a person first. For example, instead of saying the autistic boy, people can say the boy with autism. But the disability does not need to be mentioned

if it is not relevant. The child is in fact, a child first who has a disability second (Dyches & Prater, 2000).

The second value is enhancing positive contributions. Disability labels do not need to limit the contributions people with disabilities make in society. They do not need to be the sole recipients of others' charity. They have skills, knowledge, and love to offer that can be valued in their communities. Each person's individual strengths, interests, and motivations should be considered when making decisions related to that person so as to enhance the potential of the individual to positively contribute to society (Dyches & Prater, 2000).

The third value to consider when establishing positive portrayals is building on strengths. Each member of society has strengths and weakness, areas where they excel and other areas where they may need more assistance. But individuals can use each other's strengths for the good of society and can learn from each other. Likewise, people with disabilities have strengths and those strengths can be used to help them interact with the community. They should be valued for what they can do rather than be segregated, marginalized, or neglected because of what they are not able to do (Dyches & Prater, 2000).

The fourth value is acting on choices. Agency is a part of life for all individuals. People make choices that govern their lives and give them with opportunities. People with disabilities also make choices and should be allowed to do so. They do not always need someone making choices for them. In fact, allowing them to make choices, and teaching them to learn to make good choices will help them be more successful and be better members of society. Characters with disabilities can make choices regarding

friends, attire, leisure activities, and occupation (Dyches & Prater, 2000), among other choices.

Along with making choices, people need to accept the consequences of their choices. People with disabilities can also learn to accept the consequences of their actions.

The fifth value is expanding relationships. Relationships are essential in life. We have relationships with family, friends, and coworkers. We can choose to expand our social networks beyond those that are bound by familial or financial ties, or those that are one-sided where one person is the giver and the other is the receiver. We can choose to be in reciprocal relationships in which both members of the relationship benefit. Often those with disabilities are portrayed as having relationships just with family members or caregivers. People with disabilities also have the right to expand their circle of relationships and have meaningful, reciprocal relationships (Dyches & Prater, 2000).

Finally, ensuring full citizenship is the sixth value to consider. People with disabilities have the right to be respected as members of the community in which they live. They should have access to educational, occupational, and social environments and the right to choose those environments (Dyches & Prater, 2000). They should be given rights in the community as if they did not have a disability.

While these are not the only values that can be used to build a positive portrayal of people with disabilities, and while everyone may not hold the same values regarding interacting with those with disabilities, these values when portrayed in children's literature can show positive portrayals of people with disabilities. They can teach others that we should all be respected despite our varying abilities (Dyches & Prater, 2000).

Characterization level. Another aspect of characterization that assists in the development of the story is the level of characterization. A character can be a main or supporting. A main character is usually who the story is about. It is this person's experiences that are being followed. A supporting character has interactions with the main character and at some point becomes involved in the experiences of the main character.

Characterization level tells the reader if the story is about a character with a disability or if the main character has an interaction with a character with a disability. A supporting character may have a small role in the plot and may not be developed enough to show many characteristics of the disability or have many opportunities for growth. A main character, on the other hand, will be more developed and likely display more symptoms of the disability, have more relationships, and have the potential for growth.

Point of view. The point of view from which a story is told is another aspect of characterization. A story can be told first person, third person, or narrated. Each person's perspective on a situation varies because of the individual's background knowledge and experiences. The same event can be told from a variety of perspectives (Huck et al., 1993; Norton, 1995) When evaluating books that have characters with disability, the point of view helps develop the plot by knowing if it is a story told directly from the person with a disability, or from a sibling or friend of the person being portrayed. This also helps show the relationships involved in the story.

Setting

The setting of a story refers to not only the place and time period of a story but can include cultural aspects and the way characters live (Sawyer, 2000) The setting

assists in creating the mood, authenticity, and credibility of the story (Huck et al., 1993). Home, school, and nature are familiar settings for children's books. The setting of the story should provide enough details that the reader can picture the character's world and feel like they can navigate their way around it (Dyches & Prater, 2000).

Plot

The plot helps the reader make sense of the story. It guides them through the events in the story as the characters and events unfold. The plot contains a beginning, middle and an end. The beginning establishes interest for the reader by relating characters and conflict that the reader can relate to and sparks an interest to see how the conflict unfolds. The middle of the plot defines the problem more in depth and the interactions of characters allows the reader to become more involved in the story. The outcome is not clear and therefore keeps the readers attention. The plot continues to thicken as the end of the story unfolds. The highest point of interest, or the climax, comes towards the end of the story with the resolution or resolving of the problems (Sawyer, 2000). The plot needs to be believable, even in a make-believe world.

Theme

The theme of a story is also included as an aspect of good literature. Themes are ideas that recur throughout the story. The theme of a story is often used as a teaching tool to incorporate lessons through recurring messages (Sawyer, 2000). The characters, plot, and settings are all used as part of the theme. Themes can include friendship, family life, becoming independent, kindness, accepting consequences of one's actions, accepting those with differences, learning to love oneself, and other limitless possibilities.

Literature for young children often contains themes that are direct and obvious (Dyches & Prater, 2000).

Children's books that contain characters with disabilities written before 1975 and even some written after that time have been described as using bland language, having weak story lines, and having unclear messages, predictable plots, and one-dimensional characters (Carlisle, 1997). Baskin and Harris (1984) point out that books with characters with disabilities written after 1975 in general have better and more complex plots, better character development and portrayed various disabilities more accurately.

Autism Spectrum Disorders

When investigating children's literature about disabilities, Autism Spectrum Disorders (ASD) is one area that has had limited research. In the past it did not occur frequently in the literature. It is now becoming a more common disorder and therefore needs more attention. This section will define and describe ASD, how individuals with ASD are diagnosed, and how ASD have been portrayed in children's literature.

Defining Autism Spectrum Disorders

Autism Spectrum Disorders (ASD) is a group of developmental disabilities that affect the functioning of the brain. ASD include autism, Asperger syndrome and Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS) (National Institute of Child Health and Human Development, 2005). Each will be described briefly.

Autism. Individuals with autism have impairments in social interactions and communication, and by the presence of unusual, repetitive behaviors or interests. Symptoms occur before the age of three. It is usually around 18 months of age when symptoms become more clear. Children may progress normally until 18 months and then

lose skills or their lack of development becomes more obvious as the difference is noticed between typically developing children and children with autism.

Children with autism are individuals, and have their own personality with varying degrees of interests and capabilities. Two children can have autism but their symptoms may look very different from each other. If you look at autism with its three main areas, communication, social interaction, and repetitive behavior, each has its own spectrum of behaviors. For instance, along the communication spectrum an individual could be nonverbal at one end of the spectrum or he could be verbal with fluent but unusual communication skills at the other end of the spectrum. An individual could be aloof or interactive but odd in those social interactions. Further, a child can be aggressive toward self and others on one end of the spectrum or have slightly unusual and restricted patterns of behavior on the other end of the spectrum. This is why autism is a spectrum disorder. Individuals can have any combination of symptoms with varying degrees of severity.

Although each individual with autism will have differing symptoms and degrees of symptoms there are common traits. Some of the following might be present to some degree: repetitious speech, insistence on sameness and following routines, prefer to be alone, tantrums, little or no eye contact, difficulty expressing needs, sensitivity to sounds, light, or touch, spinning objects, body rocking or flapping objects, obsessive attachments to objects, non responsive to verbal cues, gross/fine motor difficulties, and others (National Institute of Child Health and Human Development, 2005).

Recent studies found that autism affects as many as 1 in 150 children (Centers for Disease Control and Prevention, 2007). It occurs in all races and ethnicities throughout

the world, but it is four times more prevalent in males than females. In 2005, there were 192,881 students in the United States being served with a classification of Autism.

Asperger syndrome. Asperger Syndrome is different than autism. A child with a diagnosis of Asperger Syndrome has impairments in social interaction and repetitive, restricted behaviors like autism but are usually less severe in nature. In addition, language delays or cognitive impairments that occur in autism are not found in Asperger Syndrome. Children with Asperger Syndrome usually have good language skills but may have awkward speech patterns such as a flat pitch or they speak too loud or too formally. They often don't understand irony or humor in language. Children with Asperger Syndrome also express extreme interests and obsessions in one area. They may know a lot about a topic and talk incessantly about or learn about the topic. They may have good rote memory skills but lack understanding of more abstract concepts. They may not understand social rules and therefore have difficulty making friends or interacting in social environments (Autism Society of America, n.d.).

Common signs and symptoms of Asperger Syndrome include: inappropriate or minimal social interactions, conversations revolving around self rather than others, scripted or repetitive speech, problems with reading, math, or writing skills, obsessions with complex topics, average to above average verbal and nonverbal abilities, awkward movements, and odd behaviors or mannerisms (Meduri, 2004).

Pervasive developmental disabilities-not otherwise specified. PDD-NOS is a diagnosis given when an individual shows unusual development in communication, social interaction, stereotyped behaviors, and interests, yet does not fully meet criteria for other PDDs such as autism or Asperger syndrome (APA, 1994). PDD-NOS may have a

later onset of symptoms, thus not meeting criteria for a diagnosis of autism, or the severity or quantity of behaviors does not warrant the diagnosis of autism.

Like autism and Asperger Syndrome, PDD-NOS is a spectrum disorder than can range from mild to severe. Individuals with this diagnosis display a wide range of symptoms and no two cases are exactly the same. Individuals with PDD-NOS may have deficits in social behavior, verbal and nonverbal communication, difficulty with changes in environment, and repetitive or ritualistic behaviors (Tsai, 2003).

Diagnosing Autism Spectrum Disorders

To be diagnosed with an ASD, the criteria found in the Diagnostic and Statistical Manual of Mental Disorders Fourth Edition (DSM-IV) must be met. Autism and Asperger Syndrome have separate lists of criteria in the DSM. In addition, several standardized tests are used by education professionals to screen and classify individuals for these disorders.

The Childhood Autism Rating Scale (CARS) is a behavior rating scale that helps practitioners identify characteristics of autism in children aged two and older. It helps identify the severity of the autism using a 7-point scale to describe how the autistic behavior affects the child. It covers areas such as relating to people, body use, adaptation to change, listening response, and verbal communication (Schopler, Reichler, & Ro, 2006).

The Gilliam Autism Rating Scale (GARS) is a behavior rating scale that helps practitioners identify characteristics of autism in children ages 3-22. It uses a 4-point scale to identify the severity of autistic behaviors that a child might exhibit ranging from never observed, seldom observed, sometimes observed, and frequently observed.

Questions are asked in three main areas: stereotyped behaviors, communication, and social interaction. A fourth section focuses on the child's development during the first 36 months of life by identifying whether key developmental milestones were present, for instance, "did the child walk within the first 15 months of life" or "did the child develop a skill (e.g. walking) and then regress (e.g. stop walking and return to crawling)" (Gilliam, 1995, p. 5)

The Asperger Syndrome Diagnostic Scale (ASDS) is a rating scale used to identify Asperger Syndrome in children ages 5-18. It covers five main areas: language, social, maladaptive, cognitive, and sensorimotor. The 50-item questionnaire is to be completed by someone who knows the individual well such as a parent or a teacher and rates whether or not a particular behavior has been observed in an individual (Myles, Bock, & Simpson, 2001)

Portrayal of Autism in Children's Literature

Dyches and Prater have evaluated the characterization of developmental disabilities in children's literature in two studies (2001, 2005). The first study (Dyches et al., 2001) reviewed books published between 1997-1998 and the second study (Dyches & Prater, 2005) reviewed books published between 1999-2003 that had characters with mental retardation or ASD. These books were analyzed for several aspects of characterization: level (main or supporting), realistic depiction, positive portrayal, character development (dynamic or static), and point of view from which the story was told. Twenty-one characters were identified with ASD in twenty books.

Of the twenty-one characters identified with ASD, 62% (n=13) were depicted as main characters while 38% (n=8) were in a supporting role. Seventy-one percent of the

portrayals of those with ASD (n=15) were depicted as realistic, 24% (n=5) as semi-realistic and 5% (n=1) as fantasy. Sixty-seven percent (n=14) of characters were portrayed positively, 28% (n=6) negatively and 5% (n=1) mixed. While examining character development, it was noted that 62% (n=13) of the characters were portrayed as dynamic while 33% (n=7) were static and 5% (n=1) were digressive. The point of view of came from various roles: 5% (n=1) only one was told from the perspective of the character with ASD, 33% (n=7) were narrative, and 62% (n=13) were told from the perspective of a sibling, niece, or other children.

These studies focus on several elements of characterization and qualities of good literature and show that, overall, ASD are being portrayed realistically and positively. For characters with ASD to be portrayed realistically, they must demonstrate behavioral, social, and language attributes common among those with ASD. The studies conducted previously suggest that characters with ASD are generally consistent with their projected ability levels; however, no detailed analyses were presented in the existing literature regarding how the evaluators determined how characters were portrayed realistically. To know if a character is demonstrating behavioral, social, and language attributes of ASD, a more systematic, in-depth, look using ASD evaluation tools would provide more descriptive, informative results. This would give a good depiction of how children's literature is portraying characters with ASD and if this portrayal accurately represents the disability.

METHOD

Books that include at least one character with ASD were reviewed using a content analysis. Books were evaluated based on their description of the behavior of ASD. This study is not an intervention study, rather, it is an evaluation study. A description of the book selection process, the data collection procedures, and the data analysis follows.

Book Selection

There were two criteria for book selection in this study. First, the book must be a picture book, meaning that it is presented in story format with illustrations. Both fiction and non-fiction books are included in the criteria. Second, the book must contain a character with ASD. For the purpose of this study, no time limit was set on the year of publication for inclusion. All picture books that contain a character with ASD were used.

Books that had illustrations but were written more like a chapter book with either chapters or section headings and had only a sketch or a few pictures throughout the book were not used for this evaluation. For example, *Autism Through a Sister's Eyes* is an example of a story about a character with autism that is divided into 15 chapters and a glossary that also has illustrations every few pages. The book *A is for Autism, F is for Friend* (Keating-Velasco, 2007) and *Please Don't Say Hello* (Gold, 1986), are other examples of books with illustrations that more closely resembled chapter books and were written for older children. One exception to this is the book *Nathan's Journey: A Biographical Look Inside the World of Autism* (Barclay, 2004) that contains chapter headings but no table of contents with one to two page chapters and real photograph pictures of various sizes. This book was used because the purpose of this study was to evaluate children's picture books, not chapter books.

To locate picture books with characters with ASD a few steps were taken. First, previously completed research in the area of children's books with characters with ASD that contain book lists were utilized (Dyches et al., 2001; Dyches & Prater, 2005). Second, electronic searches on the internet using Children's Literature Comprehensive Database, WorldCat.com, Amazon.com, and Barnesandnoble.com were conducted to locate picture books using search terms such as autism, Asperger Syndrome, and Pervasive Developmental Disorder. *Children's Books in Print* (2006) was also checked for books using "autism," "asperger syndrome," "pervasive developmental disabilities," and "picture books" as the search terms.

Instrumentation

In order to collect data on the characterization of ASD, two checklists were created from the DSM- IV criteria for autism and Asperger Syndrome as well the following diagnostic evaluations: CARS, GARS, and ASDS. The first checklist, The Behavioral Characteristics of Autism Checklist uses the DSM-IV criteria for autism and the CARS and GARS. The checklist is divided into 14 categories based on common themes found in the diagnostic evaluations and contains behaviors taken from each of the evaluations listed above. For example, one category is *Relating to People* and it includes behaviors such as *avoids people*, and *resists being touched or held*. *Body Use* is another category with items such as *clumsiness/poor coordination* and *repetitive movements*. A third category is *Object Use* with items such as *plays with toys inappropriately* and *twirls, spins, and bangs objects a lot*. See Appendix A for a copy of this instrument.

The second checklist, the Behavioral Characteristics of Asperger Syndrome Checklist, was created to evaluate characters with Asperger Syndrome by using the

DSM-IV criteria for Asperger Syndrome as well as the ASDS. This checklist has five categories: language, social, maladaptive, cognitive, and sensorimotor. These categories are based on common symptoms in Asperger Syndrome and assist in organizing and analyzing the symptoms portrayed in picture books. See Appendix B for a copy of this instrument.

The Behavioral Checklists created have not been validated, but they were created using common instruments used to evaluate and screen for ASD. The DSM-IV, CARS, GARS, and ASDS offer a variety of symptoms that may be present in individuals with ASD. The DSM-IV criteria for autism and Asperger Syndrome offer the basic criteria needed for each disorder and the CARS, GARS, and ASDS offer further insights to the spectrum of behaviors possible within the disorders. For instance, the DSM-IV says that a person with autism may not “seek to share enjoyment, interests, or achievements with other people” and the CARS gives further insight by using the following phrases, “consistently aloof or unaware of what adults are doing” and “not as responsive to adults as is typical” and the GARS mentions that people with autism may “look away or avoid looking at speaker when name is called.” These statements deal with relating to people but they are each a little different and offer a greater variety of symptoms a person with autism might display.

In addition, the evaluation tools offer a more in-depth look at the behaviors of autism than the DSM-IV. Of the 15 categories used in the checklist, the DSM-IV criteria specifically relate to only six, yet the others offer behaviors that show the spectrum of behaviors possible within the disorders. Autism is a spectrum disorder and each instance of the disability can look very differently. It is therefore beneficial to use multiple

evaluation tools to pinpoint more specific behaviors that offer realistic depiction of ASD that can then be used to evaluate the portrayals of ASD in children's literature.

Each category and behavior found on the evaluation checklist may not be described in children's literature. One character may not depict all of the characteristics of ASD because of the wide spectrum of behaviors. These evaluation tools are used to better understand a child with ASD and what his particular behaviors are. The list of possible behaviors is quite long but it will give a greater insight into the variety and severity of behaviors common among characters portrayed as having ASD.

Data Collection

When evaluating the books, each instance of a symptom of ASD, portrayed by the character with ASD, was marked on the checklist in the appropriate box indicating the page number for which it occurred. This allowed both a frequency count as well as a page reference for specific examples of behaviors. If a behavior occurs more than one time on a page, that page number was written more than once. If an author mentioned behaviors that children with ASD might display, but were not directly describing the character's behavior, these instances were not marked. For example, in *My Sister Katie* (Cassette, 2006), Kasey describes how some children with autism do not like to be held or stared at, but it is not describing Katie, rather a symptom individuals with autism might display. Examples were included of the character with ASD exhibiting a behavior or describing a behavior.

Likewise, information was only recorded on the symptoms that were present in the book and not what was absent from the book. For instance, a book might not display a

child with friends but that doesn't mean a child doesn't have friends. It was only recorded if the text or illustrations made it clear that the child did not form friendships.

In addition, if the illustrations portrayed a symptom of ASD such as avoiding eye contact, or sitting by him or herself, that was also noted on the checklist under the appropriate symptom by dividing the column in half and marking on the right side of the column the page number for the picture representation and keeping the text representations on the left. This was done to keep information together, but also to delineate between text and picture examples of behaviors.

To ensure accuracy of information gathered, a second reader familiar with ASD was used on 8 books (19%) of the books to establish inter-rater reliability. Notes were compared to make sure the readers agreed on the characteristics being portrayed. To establish a common understanding between readers, the readers read several books together to identify characteristics and themes in the book and to practice recording data. Interrater-reliability was calculated by comparing the checklists completed by both readers and tallying the number of times the readers agreed that a characteristic was present and the number of times they disagreed. The number agreed upon was then divided by the total number of instances agreed upon plus the number of times disagreed. Interrater reliability was reached at 82%.

Data Analysis

The information gathered from the checklist was then analyzed to see the patterns present in children's picture books with ASD. To answer the first research question, a frequency count of autistic symptoms found in each book was made and analyzed for each symptom. A frequency count for each item on the checklist was also made to see

which characteristics occurred most frequently in the books and which characteristics were not described or portrayed. To answer the second research question, notes were taken on themes found in the books, including such things as: personal characteristics and point of view from which the story was told, as well as the year the books were published, to see how the portrayals have changed over time.

RESULTS

This study investigated children's picture books with characters with Autism Spectrum Disorders. Forty-two children's picture books were found that matched search criteria. Of the 42 books, 35 had characters with Autism and 7 had characters with Asperger Syndrome. One book had multiple children with AS: *I Am Utterly Unique: Celebrating the Strengths of Children with Asperger Syndrome and High-Functioning Autism* (Larson, 2006). This alphabet book gives adjectives of children with Asperger Syndrome with each letter of the alphabet. It is told in first person using a variety of children. See Appendix C for a list of all books reviewed.

Results from the analysis of books with characters with autism will be presented, followed by results from the analysis of books with characters with Asperger Syndrome.

Books Including Characters with Autism

The 35 books that had characters with autism were evaluated on the Behavioral Characteristics of Autism Checklist for symptoms of ASD. This checklist has 15 categories: Relating to people; imitation; emotional response; body use; object use; adaptation to change; listening response; visual response; taste, smell, and touch response; fear or nervousness; verbal communication; nonverbal communication; activity level; level and consistency of intellectual response; and other. Results for each category follow. See Figure 1 for a summary of Autism symptoms by category. See Figure 2 for a summary of the number of books displaying each category.

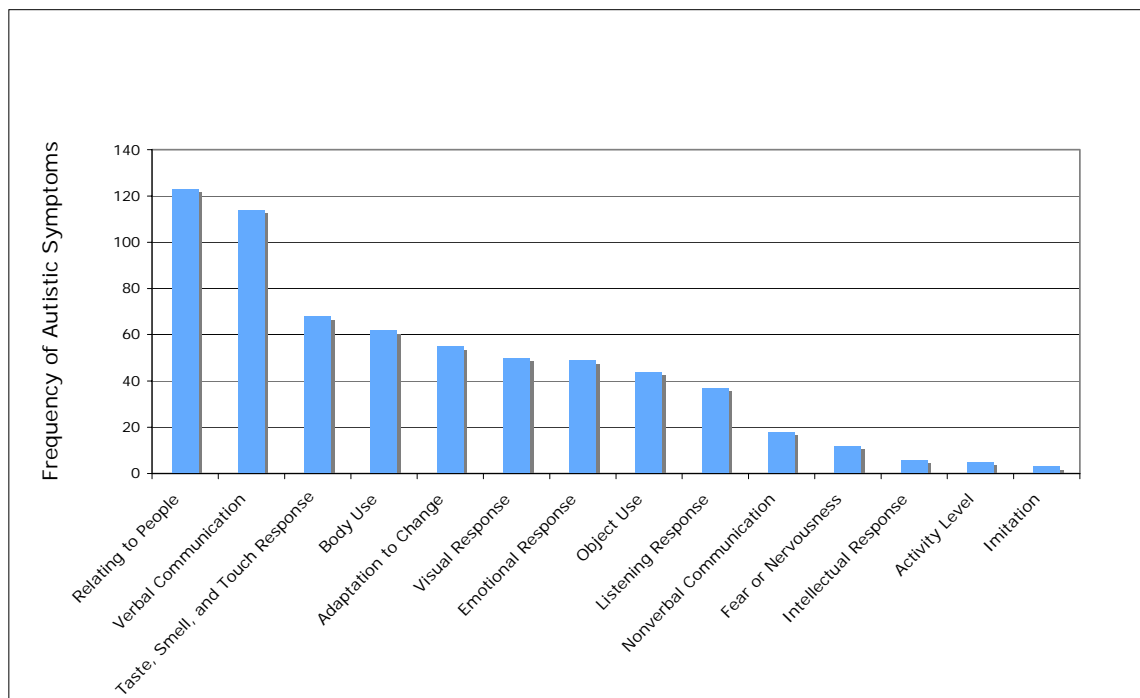


Figure 1. Frequency of autism symptoms portrayed in children's picture books.

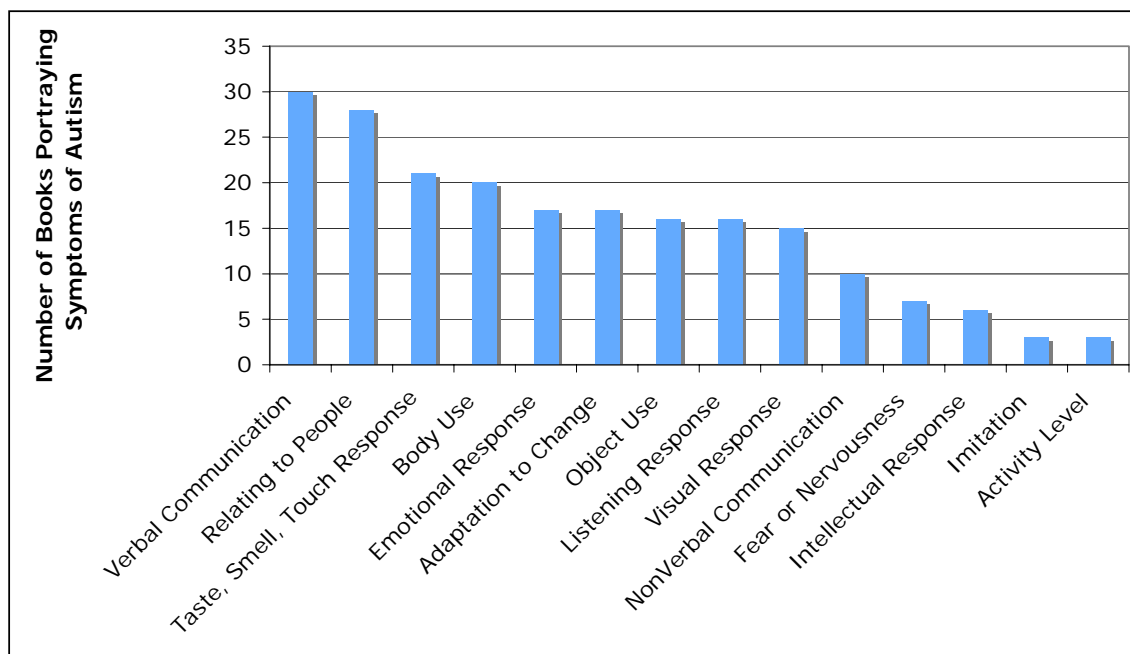


Figure 2. Number of books portraying symptoms of autism

Relating to People

Twenty-eight (80%) books displayed ASD symptoms of difficulty relating to people, with 123 occurrences. The most common symptom portrayed, *frequently does not attend to social/environmental stimuli and unaware of what others are doing*, was found in 13 books with a total of 26 times in the text and 11 times in illustrations. *Has not developed any friendships* and *resists physical contact* were portrayed in seven and six books respectively.

All but two of the symptoms in this category were portrayed in the children's books. *Is unaffectionate* and *clings to parents somewhat more than most children of the same age* were not found in any of the picture books.

Imitation

There were three instances of imitation being mentioned in two books (6%): two where the child *imitates simple behaviors* and one where the child *does not imitate*.

Emotional Response

Seventeen (49%) books displayed emotional response symptoms a total of 49 times. *Shows definite signs of inappropriate emotional responses* had the highest frequency count with 14 instances in 9 different books and was found in 5 pictures. Other items portrayed in this category include: *responds negatively or with temper tantrums when given commands, requests, or directions* found in six books, and *shows inhibited or excessive reactions* found in five books. Only one item was not portrayed in this category: *once child gets in certain mood it's difficult to change*.

Body Use

Twenty (57%) books portrayed symptoms under the body use category a total of 62 times. The top two characteristics displayed were *strange finger movements/hand flapping* and *rocks self for long periods of time* being displayed in 12 and 8 books respectively. *Self-directed aggression, repetitive movements* and *clumsiness or poor coordination* were each present in three, two, and two books respectively.

Object Use

Sixteen books (46%) displayed ASD symptoms of object use a total of 44 times. The most frequent symptom displayed in this category was *spinning objects*. This was present in four books and displayed most frequently in *Andy and His Yellow Frisbee* (Thompson, 1996), where Andy is characterized as frequently spinning his Frisbee during recess. *Lining up objects in a precise and orderly fashion* was also found in four books. *Having little interest in toys or other objects, being preoccupied with using objects in strange ways, plays with one object exclusively* and *plays with toys inappropriately* were each found in two books.

Adaptation to Change

Symptoms of adaptation to change were found in 19 (54%) books a total of 55 times. Change in routine is often hard for children with ASD. Following a routine or set schedule is a strategy that works well for children with ASD. *Does things repetitively or ritualistically* and *becomes angry and unhappy when established routine is altered* were displayed most frequently in 10 and 9 books respectively.

The researcher also noted in this category that three books show the characters using a schedule to stay on task, rather than being upset because their schedule is

changed. This is true in *Taking Autism to School* (Edwards, 2001), *I Have Autism* (Crissey, 2005), and in *Autistic Planet* (Elder, 2007). In *Taking Autism to School* (Edwards, 2001) Sam makes a daily schedule with pictures and words with his teacher because he likes to know what is going to happen.

Visual Response

Sixteen (46%) books portrayed symptoms in this category 50 times. The most frequently displayed symptoms were both related to staring: *stares at hands, objects, or items in the environment*, and *may occasionally stare off into space*.

Some symptoms in this category are similar to those in relating to people and were marked in the relating to people category. These include *avoids looking at people in the eye* and *looks through people (shows no recognition that a person is present)*. These two symptoms relate both to social interaction and visual response.

Listening Response

Symptoms in the listening response category were also found in 16 (46%) books a total of 37 times. *Showing overreaction to sounds* was portrayed the most frequently in 12 books. Other symptoms that were shown frequently include *hears certain sounds but deaf to others*, and *child may be distracted by extraneous sounds*.

Taste, Smell, and Touch Response and Use

Symptoms in this category were found in 21 (60%) books a total of 68 times. The most common symptom in this category relates to children with ASD being picky eaters. They eat certain foods, but refrain from others. Often times they eat the same foods. In *Autistic Planet* (Elder, 2007), the main character describes what it is like in her autistic world, and when talking about food she says, “there’s nothing hot in ‘aut’ cuisine, lumpy

gooey, brown, or green, the only food to pass our lips are popcorn and potato chips” (Elder, 2007, pp.19-21). The illustrations in this book show peas, fish, eggplant, boiled eggs, and something brown, and all have a poison sign protruding from the bowl. The next picture shows a waiter serving a giant piece of popcorn.

In addition to being picky eaters, being sensitive to touch (*overreacting to mild pain that a normal child would express as discomfort*) and not liking the feel of certain clothes was also represented in six and five books respectively. *Being preoccupied with touching objects or people, or smelling objects or people* were found in four and three books respectively.

Fear or Nervousness

Expressions of fear or nervousness were found in 21 times in 7 (21%) books most commonly as *fails to show appropriate regard for hazards* (four books) and *shows too much or too little fear or nervousness compared to reaction of a normal child* (two books). In the book *What Autism Means to Me* (Banki, 2003) Caspian says that pictures and statues make him uneasy and that he often feels afraid. He drew pictures of putting evil things in jail as shown by the caption on the picture.

In *My Brother is Different* a sister describes how her brother is different. She explains that all of the windows and doors inside the house are locked because her “brother might try to run or jump out” (Gorrod, 1997, p.12), indicating his failure to understand the hazard of jumping out of a window or running out of the door.

Verbal Communication

Common verbal characteristics of ASD were found in thirty (86%) books for a total of 114 instances. These symptoms range from a *mixture of some meaningful speech*

and some peculiar speech such as jargon, echolalia, or pronoun reversal (12 books) to using infantile squeals, weird or animal-like sounds or high-pitched sounds (12 books) to speech being absent (9 books). In addition, there were characters who repeated words out of context, repeated phrases, asked excessive questions, or were preoccupied with certain topics. In *Taking Autism to School*, when Sam is asked if he wants regular milk or chocolate milk, instead of answering the question he repeated the question back: “would you like regular milk or chocolate milk?” (Edwards, 2001, p.11). This is demonstrated both in the text and in the picture with captions. In *Sometimes My Brother* (Healy, 2005) Foster explains how his brother Gavin repeats lines from movies over and over. Gavin also has a hard time communicating in a sustained conversation. He answers questions with brief, direct answers but does not carry on a conversation.

Nonverbal Communication

Nonverbal communication was portrayed in 10 (29%) books that were reviewed for a total of 18 instances. Characters were described as using sign language in six books or by taking the hand of a person to the desired object as a means of communicating. These two statements are not found directly in the DSM-IV criteria for autism or in CARS or GARS, but these were positive means and ways in which characters were described as communicating. On the checklist, there were categories such as gesturing to communicate or that the child can’t understand the nonverbal communication of others. These could be the social cues that children with autism so often have trouble distinguishing. For instance, in *My Brother is Different* it says: “He laughs when I’m upset (because he doesn’t always know what I am feeling)” (Gorrod, 1997, p.17).

Activity Level

Activity level is a category that was not frequently addressed in children's picture books. Three books (8%) mention activity level that is unusual either extremely active or inactive a total of 5 times.

Level and Consistency of Intellectual Response

Intelligence was mentioned in six books (18%), six times. *May function even better than normal child in one or more areas (splinter skills like remarkable memory for songs, rhymes, television commercials, names, places, routes)* was present in six books.

No character was described as being "retarded" or not as smart as typical peers. This may be the case, but no child was described in that manner, which is good because ASD is being portrayed positively rather than focusing on the intellectual inability of these characters.

Books Including Characters with Asperger Syndrome

The seven books that had characters with Asperger Syndrome were evaluated using the Asperger Syndrome checklist created from the DSM-IV criteria for Asperger Syndrome as well as the ASDS. Four of these books had "Asperger" somewhere in the title or on the front cover, and the remaining three, *Tobin Learns to Make Friends* (Murrell, 2001), *Friends Learn About Tobin* (Murrell, 2007) and *Amazingly Alpie* (Espin, 2003) were included in the Asperger Syndrome category because these three books portrayed characteristics more inclined to Asperger Syndrome than to autism. In addition, the author of the Tobin books explains that her son has Asperger Syndrome and was her inspiration to write the book.

The Asperger Syndrome checklist is divided into five categories based upon the categories found in the ASDS: language, social, maladaptive, cognitive, and sensorimotor. Results for each category follow with a description of the number of books displaying each category and the symptoms with the highest portrayal in each category. See Figure 3 for a summary of the types of symptoms portrayed and Figure 4 for the number of books displaying each category.

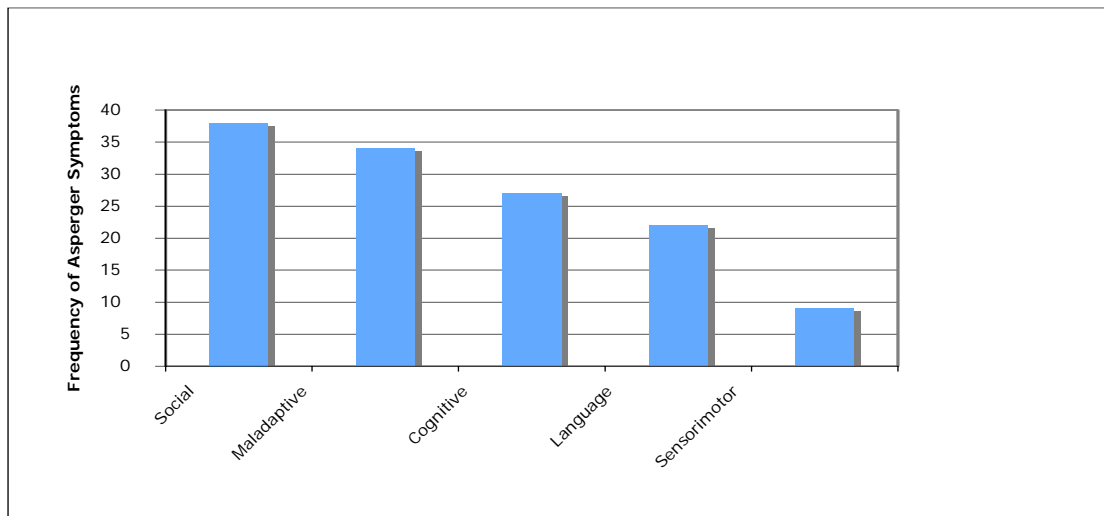


Figure 3. Frequency of Asperger Syndrome symptoms portrayed in children's picture books.

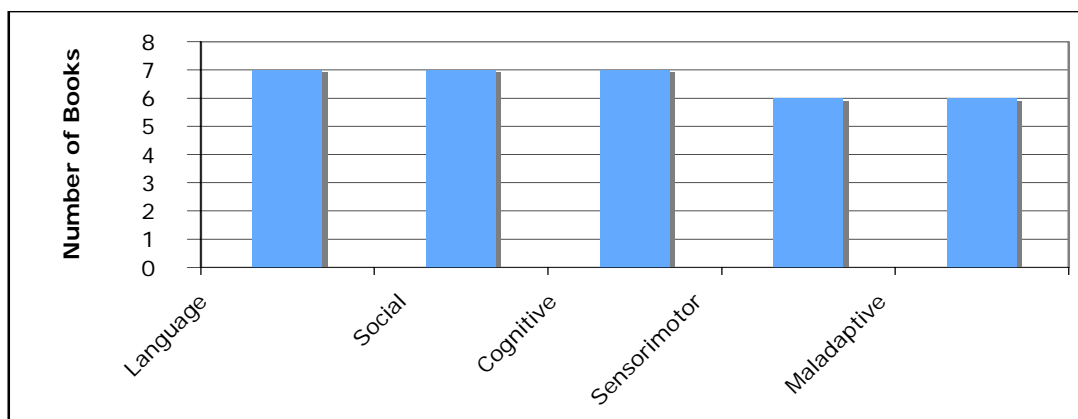


Figure 4. Number of Books Portraying Asperger Syndrome Symptoms

Language

Six out of the seven books portraying Asperger Syndromes displayed symptoms relating to language, with 22 instances occurring across the books. The most commonly depicted symptom is that characters *interpret conversations literally* which was found in three books - seven times in text and three times in pictures. Children with ASD often understand words to mean exactly what they are and not the way they are sometimes used. For example, in *Do You Understand Me?* (Brosen, 2005) Sofie explains how one time a teacher told her to “get her skates on” and she thought they were going skating when really her teacher wanted her to hurry up. In *Friends Learn About Tobin* (Murrell, 2007), Tobin, the train, is running behind schedule. His driver tells him to fly so they can make it on time. Tobin attempts to fly by trying to bounce and then exclaims that he can’t get off the ground. The driver has to explain that he really meant Tobin needed to go fast.

The only book not displaying symptoms found in the language category was *Tobin Leans To Make Friends* (Murrell, 2001). The focus of this book is on teaching Tobin social skills so that he can make friends.

Social

One criterion for a diagnosis of Asperger Syndrome is impairment in social interaction. Symptoms found on the social category of the checklist were found in six books. The symptoms displayed most often were *does not understand or use rules governing social behaviors, has few or no friends in spite of a desire to have them, and has difficulty understanding the feelings of others*, which were displayed in four books each. In *To Be Me* (Etlinger, 2005), David explains that he had a hard time making friends even though he wanted to have friends. After his classmates learn about Asperger

Syndrome and why David has a hard time with social situations, they begin to include David more and he makes friends.

In addition, it was also common to see characters that did not understand social skills such as turn taking in conversation and politeness and can not understand people's feelings. In *Do You Understand Me?* (Brosen, 2005), Sofie explains that she cannot understand if people are joking or lying by looking at their faces. An illustration also makes this clear as she sits on a park bench eating an ice cream cone watching two people walk by, one of whom is obviously crying, and asks herself if they are happy, sad, content or tired. She also explains that sometimes she does not use body language that makes it hard for others to know what she is feeling or going to do.

The only book not portraying social characteristics of Asperger Syndromes is *I Am Utterly Unique* (Larson, 2006), which is an alphabet book, describing characteristics of Asperger Syndromes. It describes children with Asperger Syndrome as being genuinely good hearted, nice, and happy to help.

Maladaptive Behavior

In addition to having trouble with social interactions, children with Asperger Syndrome often have difficulty with changes in routine and they are preoccupied with certain behaviors or interests. These maladaptive behaviors were found in five books, most commonly by *exhibiting a strong reaction to a change in routine* (n=4), *being anxious when unscheduled events occur* (n=3), and *feeling overwhelmed in crowds or demanding situations* (n=3). Tobin (*Friends Learn About Tobin* (Murrell, 2001)) provides an example of maladaptive behaviors when he stops on the track and will not budge because of a small piece of metal that was torn on the track. He couldn't bring

himself to go over it despite the efforts of people trying to push him past; he resisted until the track was fixed. Later, Tobin feels compelled to travel a familiar route home, but this route has been detoured. He ignores the detour and runs into a tree that had fallen on the track.

Cognitive Abilities

Another criteria for the diagnosis of Asperger Syndrome is that there is no clinically significant delay in cognitive abilities (American Psychiatric Association, 1994), thus many children with Asperger Syndrome have average to above average intelligence. Six books portrayed characteristic of cognitive development as found in the DSM-IV and the ASDS. *Having an excellent rote memory and learning best when pictures or written words are present, and is oversensitive to criticism*, an item found on the ASDS scale, were each displayed in three books. Sofie (Brosen, 2005) uses a checklist to remember how to work the remote control and David (Etlinger, 2005) makes lists of common rules for games to help him play games.

Sensorimotor Issues

Sensorimotor issues were depicted the least among the seven books reviewed with nine instances among four books. The symptoms portrayed include sensitivity to touch and the feel of fabrics, and being overly sensitive to smells and sounds. No instances of picky eating or sloppy handwriting were mentioned in these books.

Themes in ASD

In addition to looking at the characteristics of ASD portrayed in children's literature, this study also examined common themes found in these books. This included

looking at the personal characteristics of the character, the point of view from which the story was told, the characterization level of characters and changes in the characters.

Personal Characteristics

Ages of the characters ranged from toddler to preteen with a majority being in preschool to early elementary school range. Of the 42 books reviewed, 33 depicted male characters, 8 female characters and two books showed characters with both males and females: *I Am Utterly Unique* (Larson, 2006) and *Autistic Planet* (Elder, 2007). *Autistic Planet* is told from the perspective of a female with autism, but she is describing what it is like in her world, which includes illustrations of both males and females.

Twenty-nine (69%) characters were Caucasian, two (.04%) were African-American, one (.02%) was Asian, one (.02%) was Indian. Four characters were objects: a train in two books, a computer, and a doll. The race of three characters was not known or discernable from the illustrations or text and two books, *I Am Utterly Unique* (Larson, 2006) and *Autistic Planet* (Elder, 2007), showed a variety of races.

Point of View

Ten books were told from the perspective of a character with autism. Twelve books were narrated, 13 were told from the perspective of a sibling, and six were told from the perspective of a peer. Only one book was told from an adult's point of view.

In addition, half of the books (n=21) of the books reviewed were nonfiction and half (n=21) were fiction stories. The nonfiction books are educational in purpose: they are written to teach about and help others accept differences.

Changes in Characters

Changes in characters with autism are generally minor, but show that the characters can learn and change. For instance, several books describe characters who would not make eye contact, or say “hi” to people, but eventually begin to look people in the eyes (*Trevor, Trevor* (Twachtman-Cullen, 1998); *Ian’s Walk* (Lears, 1998); *Keisha’s Doors* or greet others (*Keisha’s Doors* (Ellis, 2005A)). Some children learn to interact with others such as when Louis joins in a soccer game instead of running through the game (*Looking After Louis* (Ely, 2004)) or when Michael is able to play with his brother (*Taco’s Anyone?* (Ellis, 2005B)). Others learn to control some of their behaviors: Zoe learns to listen, to control her outbursts, and to tolerate situations that once made her upset, like being touched (*Zinger Bug Zoe* (Betz, 2006)), Andy adjusts to being close to a new person (*Andy and His Yellow Frisbee* (Thompson, 1996)), and Jonathon adapts to being in crowds (*Little Rainman* (Simmons, 2006)).

In *Flight of a Dove*, (Day, 2004) Betsy makes several changes throughout the book. Betsy is taken to a special school in hopes that they can teach her. She is shown sitting by herself in a gray box while others play and interact. Betsy makes progress as she learns to accept changes in her routine and focus on objects. She follows the bird with her eyes and imitates the bird through both vocalizations and arm movements. Her response to the dove provides insight for the teachers on how they can better teach her. In the end Betsy is shown in color, smiling, and initiating contact with others. Betsy becomes a different person, a happier person, as the story progresses.

DISCUSSION

The purpose of this study was to evaluate the portrayal of autism and common themes found in children's picture books. A discussion of the results, limitations of the study, and suggestions for future research follow.

The results of this study indicate that children's literature is portraying a wide variety of symptoms related to autism in picture books. Stories are told from various perspectives, including individuals with autism, as well as family and friends that give realistic examples of ASD from many sources. In addition, portrayals are given of characters from all across the autism spectrum, from the nonverbal, self-stimulating child, to those who can express themselves verbally and are quite intelligent, but may have difficulty in social interactions, to those who engage in ritualistic behaviors and resist changes in routine. The range of characters with ASD is impressive.

Most books are written from the perspective of siblings, who tell their experiences about having a brother or sister with autism. Five books were actually written by a child who has a sibling with ASD and they are able to express their experiences in these books. In addition, two books were told from a person with ASD themselves.

The personal characteristics depicted in the picture books are fairly accurate in terms of gender. Boys more often have ASD than girls, in fact it is four times more likely for a boy to have autism than a girl (APA, 1994). In the books, 79% of the characters depicted were male, which is slightly above the national average.

Race is a personal characteristic that was not addressed well in the books. Although race was not important to any of the stories, 70% of the characters portrayed were white. This representation does not reflect the occurrence of autism across racial

categories according to educational data, where disproportionately high numbers of students with autism are Black or Asian/Pacific Islander (Dyches, Wilder, Sudweeks, Obiakor, & Algozzine, 2004). While the white male is depicted the most often as having ASD, a more representative picture would include additional books that depicted characters from various races, particularly those who are classified as having ASD.

Two recent books depicted a variety of characters, male and female, of different races: *Autistic Planet* (Elder, 2007) and *I Am Utterly Unique* (Larson, 2006). Gender or race was not important to the story line, but it does portray a realistic picture that autism is not limited to one gender or race.

The portrayal of autism is pretty accurate and realistic in relation to the criteria to have autism. The three main defining attributes of autism are communication, social interaction, and repetitive behaviors. A person with autism has deficits in all three areas, although the extent varies with each person. This study found that to be true among book portrayals of autism as well. Over 80% percent of the books reviewed showed characters displaying symptoms related to communication, social interaction, and repetitive behaviors. Just like no two individuals with autism are the same, no two books had characters that displayed symptoms in exactly the same way. When reviewing the results it is clear that relating to people and verbal communication were the categories most often depicted.

The portrayal of Asperger Syndrome is also accurate and realistic. Asperger Syndrome has two main defining attributes: social and maladaptive. Eighty-six percent of the books reviewed on the Behavioral Characteristics of Asperger Syndrome Checklist displayed symptoms in the social category and 71% displayed characteristics in the

maladaptive category. One book, *I Am Utterly Unique* (Larson, 2006), did not display either of these characteristics.

The books reviewed often show a realistic, multidimensional character, focusing on the strengths and weaknesses of the characters. It is very positive that the characters are portrayed doing things they are good at or enjoy doing because it helps the reader understand that children with ASD are like other kids, everyone has strengths and weaknesses. Showing individuals with ASD being successful at something is a very positive approach. Likewise, these characters are also shown with weaknesses or areas where they need more help and how others can help them.

The number of books written about autism continues to increase over time. Forty-two picture books that contain a character with ASD were identified in this study, the earliest dating back to 1955 (*Crow Boy (Yashima)*). Two books were written prior to the 1990s, 12 books were written during the 1990s, and 28 books have been written since the beginning of 2000. The number has increased dramatically since the start of this century. In 2005 alone, nine books were identified that had characters with ASD. These numbers do not even include the number of chapter books that have characters with autism.

The results of this study reflect results found earlier that since the passing of IDEA, more books have been written about disabilities (Carlisle, 1997; Harrill et al., 1993). In addition, the dramatic increase in books written since the beginning of the century also correlates with the increase of students being served with autism in the schools. From 1991-2005 the number of students being served with autism increased by 183,000 (U.S. Department of Education, 2006). In 2005 the greatest number of picture books were written that had characters with autism than any previous year. As more and

more children are identified with autism, the number of books also seems to be increasing.

These books are also being written with the intent to teach about autism and foster acceptance and understanding. Twenty (57%) books evaluated were nonfiction. These books were specifically written to teach about autism and five were written through a sibling's perspective, with the sibling being the author. These books help siblings express and understand their experiences as well as teach others about autism. Two books were biographical, told from the perspective of the individual with autism, which provides a personal, realistic account of what it is like for the child with autism. In addition, about half of the books reviewed had information about autism, tips for teachers, and important points to remember as either an introduction or conclusion to the book.

Limitations

While the use of the symptoms found in the DSM-IV criteria for autism as well as the GARS, CARS and ASDS were helpful, there were a few limitations. First, the length of the checklist is a limitation. Both the Autism and the Asperger checklist include many symptoms or behaviors, making it difficult to determine where the behavior depicted in the book correlates in the checklist.

Second, sometimes a behavior would be depicted that did not seem to adequately fit the statements as they were phrased, but they still resembled autism or a how a child with autism learns best. For example, children with autism often have a hard time adapting to changes in routine. The checklist offers symptoms such as gets upset when established routine is changed or resists changes in routines, but it does not account for the positive strategies used to help a child adjust to changes in routines. One strategy used

to help children adjust is to use a schedule, but that was not specifically written on GARS, CARS, or ASDS as a symptom of autism because it is not a symptom. It is, however, important because it shows a positive strategy used to teach children with autism that nondisabled children will hopefully see in schools and in the community. In addition, without the use of a schedule, the child probably would display more reactions to change in routine that would be a characteristic of ASD. The use of schedules was added to the adaptation to change category under “other” because it was deemed important.

Third, when children are diagnosed with ASD their behaviors are observed and an evaluation instrument is completed. The whole child is considered, including his past. When identifying ASD symptoms in a book character, it is more difficult because the reader is limited to the description given by the author. The child cannot be observed in the same way that a real child would be observed when completing diagnostic scales. The reader has a more limited insight into the character.

Fourth, some books were hard to rate using the scales because the title said autism, but it depicted high functioning autism and may have been better rated using the Asperger Checklist. Asperger Syndrome and high functioning autism are similar and while rating a character with high functioning autism, there were times when the symptoms of Asperger seemed to fit better or a symptom would appear that was on the Asperger scale but not necessarily on the autism checklist. For instance, the Asperger Syndrome scale has more symptoms of social skills and language. Some characters with autism had a hard time understanding subtle jokes or they interpreted conversations literally, but these items were not found on the autism checklist.

Fifth, some books were written so that characteristics of the disorder were not present or not the topic of the book. These more subtle instances of the disability were more difficult to rate, but show positive portrayals. *Amazingly Alpie* (Espin, 2003) is one such example in which the computer is different than other computers, and does not understand the same commands. The people think he is useless until a programmer comes in and inputs the formulas differently so that they make sense to the computer. Then Alpie is able to do things that the other computers cannot. This story does not even mention the disability but the behaviors resemble Asperger Syndrome, and shows that it is okay to be different and sometimes people learn and interpret the world differently.

Finally, inter-rater reliability data were obtained for only 19% of the books. This is a limitation because most of the books were rated by one reader and therefore subject to one reader's perception of the characters. It is possible that some symptoms were displayed but not accounted for in this study.

Future Research

This study focused on evaluating the portrayal of autism in children's picture books. This study could be extended to see how children with autism are portrayed in chapter books. Fiction chapter books specifically would be beneficial to study to see how authors carry out symptoms over an entire story and to see the relationships the characters are involved in and if the characters develop over time. Chapter books will allow for more aspects of good literature such as plot development and character development that the author could use to further develop the character with autism and provide more insight into what it would be like to have autism. This was not as well developed in some picture books.

Another study might focus on the use of best teaching practices in children's literature with characters with autism. For instance, books could portray the use of schedules, which help individuals with ASD understand the events that will occur throughout the day and what is expected of them. It also helps them adjust to changes in routine that so often upset them. The use of positive strategies will help readers better understand how they can help and interact with individuals with autism.

Future research could also focus on the use of children's picture books on autism. Do teachers and parents know about these books and use them? Do they find them useful? Just because the books are available does not mean they are widely read or used. It would be beneficial to see who uses these books and how they use them.

Conclusions

The characterization of ASD in children's picture books is both realistic and positive. Children and adults reading these books will not only learn about symptoms of autism but how they can help those with autism. They will see that children with ASD are like other children, but they may have difficulties with verbal communication and relating to others. They may learn that children with ASD have difficulties regulating their behavior. Most importantly, children and adults reading these books will see characters with ASD who have both strengths and weakness and can make positive contributions.

Just as children with autism vary in their degrees and severity of symptoms, so do the picture books vary in their representation of symptoms and behaviors related to autism. Parents and teachers can use these books to help others understand and relate to those with autism.

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APPENDIX A

BEHAVIORAL CHARACTERISTICS OF AUTISM IN PICTURE BOOKS

Book Titles						
I. RELATING TO PEOPLE						
Avoids eye contact CARS, GARS						
Is excessively shy CARS						
Initiates minimal contact with others CARS						
Consistently aloof or unaware of what adults are doing, standoffish CARS, GARS						
Lacks spontaneous seeking to share enjoyment, interests, or achievements with other people DSM-IV						
Looks away or avoids looking at speaker when name is called GARS						
Not as responsive to adults as is typical CARS						
Has not developed any friendships DSM-IV,						
Persistent and forceful attempts are necessary to get the child's attention at times CARS						

Book Titles						
Becomes fussy if interaction is forced CARS						
Frequently does not attend to social/environmental stimuli DSM-IV						
Resists physical contact from others (doesn't seem to like hugs, pats, being held, or other close contact) GARS						
Is unaffectionate; doesn't give affectionate responses (hugs and kisses) GARS						
Clings to parents somewhat more than most children of the same age CARS						
Other: doesn't enjoy activities that most others enjoy						
Other: doesn't know how to respond to peers/ adults						
II. IMITATION						
Imitates simple behaviors such as clapping or single verbal sounds part of time. CARS						
Occasionally imitates only after prodding or delay CARS						
Does not imitate CARS, GARS						
Other:						

Book Titles						
III. EMOTIONAL RESPONSE						
Shows definite signs of inappropriate emotional responses CARS, GARS						
Shows inhibited or excessive reactions CARS						
May grimace, laugh, giggle, cry, or become rigid even though no apparent emotion-producing objects or events are present CARS, GARS						
Behaves in an unreasonably fearful, frightened manner GARS						
May show wildly different emotions when nothing has changed CARS						
Once child gets in certain mood it's difficult to change CARS						
Responds negatively or with temper tantrums when given commands, requests, or directions GARS						
Other:						
IV. BODY USE						
Clumsiness/poor coordination CARS						

Book Titles						
Not clumsy, “surprisingly safe” CARS						
Repetitive movements CARS						
Whirls, turns in circles GARS						
Rocks self for long periods of time CARS, GARS						
Makes rapid lunging, darting movement when moving from place to place GARS						
Whirls self for long periods of time CARS						
Strange finger movements/hand flapping DSM-IV, CARS, GARS						
Peculiar finger or body posturing DSM-IV, CARS						
Staring or picking at the body CARS						
Self-directed aggression (like head-hitting, slapping, hitting or biting) CARS, GARS						
Toe-walking CARS, GARS						
Other:						
V. OBJECT USE						

Book Titles						
Shows atypical interest in toys CARS						
Plays with toys or objects inappropriately CARS, GARS						
Little interest in toys or other objects CARS						
Preoccupied with using objects in a strange way CARS						
Lines up objects in precise, orderly fashion and becomes upset when order is disturbed GARS						
Spins objects not designed for spinning (saucers, cups, glasses, etc.) GARS						
Focuses on some insignificant part of toy CARS						
Plays with one object exclusively CARS						
Repetitively move some part of object CARS						
Becomes fascinated with light reflecting off objects CARS						
Other:						
VI. ADAPTATION TO CHANGE						

Book Titles						
When an adult tries to change tasks child may continue same activity or resists the change CARS						
Resists changes in routine (new clothes, new routes, etc.) DSM-IV						
Becomes angry and unhappy when established routine is altered CARS, GARS						
Does certain things repetitively, ritualistically GARS						
Difficult to distract CARS						
Other: uses schedule to stay on task						
VII. VISUAL RESPONSE						
Occasionally/frequently reminded to look at objects CARS						
May be more interested in looking at mirrors or lighting than peers CARS						
May occasionally stare off into space CARS						
Looks through people (shows no recognition that a person is present) GARS						

Book Titles						
Avoids looking people in the eye DSM-IV, CARS, GARS						
Stares at hands, objects or items in the environment for at least 5 seconds GARS						
May look at objects from an unusual angle CARS						
May hold objects close to eyes CARS						
Rapidly flicks fingers or hands in front of eyes for periods of 5 seconds or more GARS						
Other: bright lights hurt eyes						
VIII. LISTENING RESPONSE						
Hears certain sounds but "deaf" to others CARS						
May show overreaction to certain sounds or cover ears when hearing everyday sounds CARS						
Responses to sounds may be delayed CARS						
Sounds may need repetition to catch child's attention CARS						

Book Titles						
Child may be distracted by extraneous sounds CARS						
Other:						
IX. TASTE, SMELL, AND TOUCH RESPONSE AND USE						
May persist in putting objects in his or her mouth CARS						
Licks inedible objects (person's hand, toys, books, etc.) GARS						
Chews or swallows non-food objects						
Eats specific food and refuses to eat what most people will usually eat GARS						
May be preoccupied with tasting objects or people CARS						
May be preoccupied with smelling objects or people CARS, GARS						
May be preoccupied with touching objects or people CARS						
May ignore mild pain CARS						
May overreact to mild pain that a normal child would express as discomfort CARS						
Other: Vomits normal food						

Book Titles						
Other: overreact to touch						
Doesn't like clothes						
X. FEAR OR NERVOUSNESS						
Shows too much or too little fear or nervousness compared to reaction of a normal child of the same age in a similar situation CARS						
Fears persist even after repeated experience with harmless events or objects CARS						
Fails to show appropriate regard for hazards CARS						
Other:						
XI. VERBAL COMMUNICATION						
Speech may be absent DSM-IV						
Child uses 0-5 spontaneous words/day DSM-IV						
Verbal communication may be a mixture of some meaningful speech and some peculiar speech such as jargon, echolalia, or pronoun reversal CARS, DSM-IV, GARS						
Has marked impairment in the ability to initiate or sustain a conversation with others DSM-IV, GARS						

Book Titles						
Repeats words out of context (words hear at an earlier time, more than one minute earlier) GARS						
Repeats words or phrases over and over GARS						
Speaks (or signs) with flat affect or dysrhythmic patterns GARS						
Excessive questioning or preoccupation with particular topics CARS						
Avoids asking for things he or she wants GARS						
Uses “yes” or “no” inappropriately. Says “yes” when asked if he or she wants an aversive stimuli or says “no” when asked if he or she wants a favorite toy or treat GARS						
Uses the word “I” inappropriately (does not say “I” to refer to self) GARS						
Inappropriately answers questions about a statement or brief story GARS						

Book Titles						
Uses infantile squeals, weird or animal-like sounds, or high pitched sounds CARS, GARS						
Other: Humming						
XII. NONVERBAL COMMUNICATION						
Has immature use of nonverbal communication: may only point vaguely, or reach for what he or she wants CARS						
Is unable to express needs or desires nonverbally CARS						
Uses only bizarre or peculiar gestures which have no meaning CARS						
Uses gestures instead of speech or signs to obtain objects GARS						
Can't understand the nonverbal communication of others CARS						
Responds inappropriately to simple commands (sit down, stand up, etc) GARS						
Other: uses signs, pictures to communicate						
Other: takes hand of person to object						

Book Titles						
XIII. ACTIVITY LEVEL						
Extremes of activity or inactivity CARS						
May be mildly restless CARS						
May be lazy, slow moving, and inactive CARS						
May be quite active CARS						
May be difficult to restrain CARS						
Has boundless energy and may not go to sleep readily at night CARS						
Other:						
XIV. LEVEL AND CONSISTENCY OF INTELLECTUAL RESPONSE						
Child is not as smart as typical children CARS						
Skills appear fairly evenly retarded across all areas CARS						
May function even better than normal child in one or more areas (splinter skills like remarkable memory for songs, rhymes, television commercials, names, places, routes, perfect musical pitch, arithmetic, etc) CARS						

Book Titles						
Lacks varied, spontaneous make-believe play DSM-IV						
Other:						
XV. OTHER						
Uses the word "Autism"						

CARS= Childhood Autism Rating Scale
DSM-IV=Diagnostic Criteria for Autistic Disorder
GARS=Gilliam Autism Rating Scale

APPENDIX B

Behavioral Characteristics of Asperger Syndrome in Picture Books

Book Titles						
Language						
Single words used by the age 2 years DSM-IV						
Communicative phrases used by age 3 years DSM-IV						
Speaks like an adult in an academic/bookish manner ASDS						
Overly uses correct grammar ASDS						
Talks excessively about favorite topics that hold limited interest for others ASDS						
Uses words or phrases repetitively ASDS						
Does not understand subtle jokes ASDS						
Interprets conversations literally ASDS						
Has peculiar voice characteristics (sing song, monotone)						

Book Titles						
ASDS						
Acts as though he or she understands more than he or she does ASDS						
Frequently asks inappropriate questions ASDS						
Experiences difficulty in beginning and continuing conversation ASDS						
Other:						
Social						
Uses few gestures ASDS, DSM-IV						
Avoids or limits eye contact ASDS, DSM-IV						
Has difficulty in relating to others that cannot be explained by shyness, attention, or lack of experience ASDS						
Exhibits few or inappropriate facial expressions ASDS, DSM-IV						
Shows little or no interest in other children ASDS						
Prefers to be in company of adults more than peers						

Book Titles						
ASDS						
Failure to develop peer relationships appropriate to developmental level DSM-IV						
Lacks spontaneous seeking to share enjoyment, interests, or achievements with other people DSM-IV						
Lack of showing, bringing, or pointing out objects of interests to other people DSM-IV						
Has few or no friends in spite of a desire to have them ASDS						
Has little or no ability to make or keep friends ASDS						
Does not respect others' personal space ASDS						
Displays limited interest in what other people say or what others find interesting ASDS						
Has difficulty understanding the						

Book Titles						
feelings of others ASDS						
Does not understand or use rules governing social behavior ASDS						
Has difficulty understanding social cues (turn-taking in conversation, politeness) ASDS						
Lack of social or emotional reciprocity DSM-IV						
Other:						
Maladaptive						
Does not change behavior to match the environment (uses loud outside voices in the library) ASDS						
Engages in inappropriate behavior related to obsessive or favorite interest ASDS, DSM-IV						
Displays antisocial behavior ASDS						
Exhibits a strong reaction to a change in his or her routine ASDS, DSM-IV						
Frequently becomes anxious						

Book Titles						
or panics when unscheduled events occur ASDS						
Appears depressed or has suicidal tendencies ASDS						
Engages in repeated, obsessive, and/or ritualistic behavior e.g., Hand or finger flapping or twisting, complex whole-body movements ASDS, DSM-IV						
Displays behaviors that are immature and similar to those of a much younger child ASDS						
Frequently loses temper or has tantrums ASDS						
Frequently feels overwhelmed or bewildered, especially in crowds or demanding situations ASDS						
Attempts to impose narrow interests, routines, or structures on others						

Book Titles						
ASDS						
Persistent preoccupation with parts of objects DSM-IV						
Other:						
Cognitive						
No clinically significant delay in cognitive development DSM-IV						
No clinically significant delay in the development of age-appropriate self-help skills DSM-IV						
No clinically significant delay in adaptive behavior (other than in social interaction) DSM-IV						
No clinically significant delay in curiosity about the environment in childhood DSM-IV						
Displays superior ability in restricted area of interest, while having average to above average skills in other areas ASDS						
Displays an extreme or						

Book Titles						
obsessive interest in a narrow subject ASDS						
Functions best when engaged in familiar and repeated tasks ASDS						
Has excellent rote memory ASDS						
Learns best when pictures or written words are present ASDS						
Has average to above average intelligence ASDS						
Appears to be aware that he or she is different from others ASDS						
Is oversensitive to criticism ASDS						
Lacks organizational skills ASDS						
Lacks common sense ASDS						
Other:						
Sensorimotor						
Displays an unusual reaction to loud, unpredictable noise (screams, has tantrums, or						

Book Titles						
withdraws) ASDS						
Frequently stiffens, flinches, or pulls away when hugged ASDS						
Overreacts to smells that are hardly recognizable to those around him or her ASDS						
Prefers to wear clothes made of only certain fabrics ASDS						
Has restricted diet consisting of the same foods cooked and presented in the same way ASDS						
Exhibits difficulties with handwriting or other tasks (buttoning, typing) that require fine motor skills ASDS						
Appears clumsy or uncoordinated ASDS						
Other:						

ASDS = Asperger Syndrome Diagnostic Scale

DSM IV = Diagnostic Criteria for Asperger Syndrome

APPENDIX C

Picture Books Reviewed

<i>Title</i>	<i>Author (Illustrator)</i>	<i>Year</i>	<i>Publisher</i>	<i>Fiction/ Non fiction</i>	<i>Autism/ Asperger</i>
All About My Brother	Sarah Peralta	2002	Autism Asperger	N	Autism
Amazingly Alpie	Roz Espin (Beverley Ransom)	2003	Autism Asperger	N	Asperger*
Andy and His Yellow Frisbee	Mary Thompson	1996	Woodbine House	F	Autism
Autistic Planet	Jennifer Elder (Marc Thomas, Jennifer Elder)	2007	Jessica Kingsley	F	Autism
The Boy Who Swam in the Stars	Derrick Eichelberger	1998	Mad Dog Publishing	F	Autism
Captain Tommy	Abby Ward (Kim Harris Belliveau)	1999	Future Horizons	F	Autism
The China Doll	D.M. Rosner (Robert Jones)	2007	Jigsaw Press	F	Autism
Crow Boy	Taro Yashima	1955	Viking Penguin	F	Autism*
Do You Understand Me?	Sofie Koborg Brosen (Peter Brosen)	2005	Jessica Kingsley	N	Asperger
The Flight of a Dove	Alexandra Day	2004	Farrar Straus Giroux	F	Autism
Friends Learn About Tobin	Diane Murrell	2007	Future Horizons	F	Asperger*
I Am Utterly Unique	Elaine Marie Larson (Vivian Strand)	2006	Autism Asperger	F	Asperger
I Have Autism	Pat Crissey (Noah Crissey)	2005	Super Duper Publications	N	Autism
I Love My Brother	Connor Sullivan (Christopher Griffin)	2001	Phat Art 4 Pub.	N	Autism
Ian's Walk: A Story About Autism	Laurie Lears (Karen Ritz)	1998	Albert Whitman & Company	F	Autism

<i>Title</i>	<i>Author (Illustrator)</i>	<i>Year</i>	<i>Publisher</i>	<i>Fiction/ Non fiction</i>	<i>Autism/ Asperger</i>
Joey and Sam	Illana Katz, Edward Ritvo (Franz Borowitz)	1993	Real Life Story Books	F	Autism
Keisha's Doors	Marvie Ellis (Jenny Loehr)	2005	Speech Kids Texas Press	F	Autism
Learning Together	Nancy Dalrymple	1979	Indiana Resource Center for Autism	N	Autism
Life with Gabriel	Jennifer VanDerTuuk- Perkins (Rod Perkins and Jennifer VanDerTuuk- Perkins)	2004	Theragogy	N	Autism
Little Rainman	Karen Simmons	1996	Future Horizons	N	Autism
Looking After Louis	Lesley Ely (Polly Dunbar)	2004	Albert Whitman & Company	F	Autism
Matthew's Box	K.B. Reish (Herb Leonhard)	2005	KBR Mutti's Publications	F	Autism
Mori's Story	Zachary Gartenberg (Jerry Gay)	1998	The Lerner Publishing Group	N	Autism
My Best Friend Will	Jamie Lowell & Tara Tuchel	2005	Autism Asperger Publishing	N	Autism
My Brother is Different	Louise Gorrod (Beccy Carver)	1997	The National Autistic Society	F	Autism
My Brother Sammy	Becky Edwards (David Armitage)	1999	Millbrook Press	F	Autism
My Friend with Autism	Beverly Bishop (Craig Bishop)	2003	Future Horizons	N	Autism
My Sister Katie	Mary Cassette (Julie Robbins)	2006	Author House	N	Autism
My Special Brother Rory	Ellier Fairfoot, Jenny Mayne (Ellie Fairfoot)	2004	The National Autistic Society	N	Autism
Nathan's Journey	Helen Barclay	2004)	HGB Enterprises	N	Autism

<i>Title</i>	<i>Author (Illustrator)</i>	<i>Year</i>	<i>Publisher</i>	<i>Fiction/ Non fiction</i>	<i>Autism/ Asperger</i>
	(Ralph Beach)				
Russell is Extra Special	Charles A. Amenta	1992	Magination Press	N	Autism
Sometimes My Brother	Angie Healy (Lee Ann Widyn)	2005	Future Horizons	N	Autism
Sundays with Matthew	Matthew Lancelle & Jeanette Lesada	2006	Autism Asperger	N	Autism
Tacos Anyone?	Marvie Ellis (Jenny Loehr)	2005	Speech Kids Texas Press	F	Autism
Taking Autism to school	Adreanna Edwards (Tom Dineen)	2001	Jay Jo Books	N	Autism
Talking to Angels	Esther Watson	1996	Harcourt	F	Autism
This is Asperger Syndrome	Elisa Gagnon & Brenda Smith Myles (Sachi Tahara)	1999	Autism Asperger Publishing	N	Asperger
To Be Me	Rebecca Etlinger (Mark Tomassi)	2005	Western Psychological Services	F	Asperger
Tobin Learns to Make Friends	Diane Murrell	2001	Future Horizons	F	Asperger*
Trevor, Trevor	Diane Twachtman-Cullen (Deidre Sassano)	1998	Starfish Specialty Press	F	Autism
What Autism Means to Me	Caspian Banki	2003	Lifelight Books	N	Autism
Zinger Bug Zoe	Gayle L. Betz (Dawn Baumer)	2006	Author House	F	Autism

* These books do not specifically mention the disability, but it resembles either Autism or Asperger Syndrome.