

SHOOT FOR THE STARS PROGRAM
A FRAME WORK FOR AN AFTER SCHOOL PROGRAM FOR STUDENTS WITH
ASPERGER SYNDROME IN SAUDI ARABIA

by

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ABSTRACT

Students with Asperger Syndrome (AS) are often left with no social skills support because they perform academically as well as their typical peers, and therefore their disorder is misdiagnosed or misunderstood. In Saudi Arabia, social skills support is especially lacking for these students. In this paper, the author has developed an after-school program called Shoot for the Stars for elementary students who have AS in Jeddah, Saudi Arabia. Shoot for the Stars is designed to be a fun one-hour after-school program that concentrates on improving students' social skills through a combination of recreational activities and an appropriate social curriculum. Different social skills strategies are used to help students with AS achieve successful social functioning, including emotion circle time, social stories, role-playing, video modeling, sensory integration therapy, and the Stop-Observe-Deliberate-Act (SODA) strategy. Recreational activities will be held to give students the chance to practice the learned behaviors and interact with their peers. The recreational activities will include field trips to museums, zoos and parks, swimming lessons, martial arts lessons, book clubs, and art clubs.

Keywords: Asperger syndrome, social skills, autism, Saudi Arabia, inclusion, emotion circle time, social stories, role-playing, video modeling, sensory integration therapy, (SODA).

INTRODUCTION

Baksh (2005) stated that although attention, aid, and support have been provided to help individuals with Autism Spectrum Disorder (ASD) in Europe and America, individuals with ASD were ignored in the Middle East in general and in the Kingdom of Saudi Arabia in particular until the late 20th century.

Attention to children with disabilities in Saudi Arabia began in 1989, and the Ministry of Education has established three residential care centers in three major cities: Jeddah, Riyadh, and Dammam (Al-Shammari, 2008). Unfortunately, these three centers were not able to provide the necessary services to many children with ASD. They offered services to thousands of children with various disabilities from all over the country and the lack of equipment and experienced staff (Baksh, 2005).

In 1990, a special education center opened in the Alahsa region to provide the necessary services to children with disabilities in that region (Alqahtani, 2004). From that time on, attention to Autism Spectrum Disorder and other disabilities increased in Saudi Arabia. Today, there are 88 special education centers in Saudi Arabia. Baksh (2005) explained that although there are many special education centers in the country, students with ASD are usually misdiagnosed with cognitive impairment, and taught with students who have severe to mild cognitive impairment. There is a lack of supportive services and behavior adjustment techniques.

In 1998, the Ministry of Education in Saudi Arabia slowly started implementing integration in private schools, while the Ministry of Education started implementing it in public schools in 2000 (Alkurshami, 2003). Alkurshami (2003) stated that boys' schools were more successful with inclusive experiences than were girls' schools. This has

opened the door for access of all disabilities in public education. The percentage of students with disabilities varied, but students with autism constituted the least percentage. Alkurshami's study (2003) assured that the negative view toward students with disabilities was the biggest obstacle with successful inclusion of girls', at 20%, and the lack of special education teachers, at 25% (See Table 1). On the other hand, boys' schools lacked necessary resource rooms and supportive services, at 15%, and a lack of schools' staff experience and training constituted 30% to boys' schools' failure in proper disability inclusion. Alkurshami (2003) concluded that the lack of awareness about the importance of inclusion as well as the lack of special education teachers plays a negative role in the integration experience.

TABLE1: Obstacles in inclusion success in girl's and boy's schools

| Obstacles to success in inclusion schools | Boys' schools | Girls' schools |
|--|----------------------|-----------------------|
| Negative view | 10 | 20 |
| Lack of schools' staff experience and training | 30 | 12 |
| Lack of special education teachers | 15 | 25 |
| The diversity in students' disabilities | 10 | 10 |
| Not providing preparation in schools' amenities | 10 | 10 |
| Lack of cooperation between schools and parents | 5 | 5 |
| Lack of resources, rooms and supportive services | 15 | 10 |
| Misdiagnosis | 5 | 8 |

Alkurshami,S.A.(2003) Integrating Children with Special Needs in Regular Schools: A Survey Study of Integration Programs in Saudi Arabia.

Baksh (2002) praised the successful Saudi experience in integrating students with visual problems, students with mobility and movement impairments, and students with hearing loss into public schools. Unfortunately, Saudi schools fall behind in integrating students with autism due to their awkward social interactions and behavior. Such students need consistent activity, routine, a quiet environment, and a great deal of support and patience. Moreover, most students with Asperger Syndrome physically look normal and academically tend to perform as well or better than their peers, but they will have difficulty controlling their behavior, tolerating changes in routine, interacting socially and building relationships (Baksh, 2008).

Al-Shammari (2008) conducted a study to evaluate the educational programs provided for students with Autism Spectrum Disorder in the Kingdom of Saudi Arabia by interviewing the staff of those programs. The study sample consisted of 164 employees in autism programs in the Kingdom of Saudi Arabia (KSA) distributed throughout six school districts. The study's findings indicate that parents who enroll their children with ASD in private schools are more involved in their children's learning and there is better cooperation with the school's staff than parents who enroll their children in public schools. He noted that this is happening because parents pay tuition for private schools and are therefore generally more concerned with the quality of their children's education. He also explained that private schools are more successful in acquiring specialized educators, while public schools need more time to go through governmental processes to get what they need, whether that might be equipment or specialized educators.

According to Elliot, & Gresham (2007), students with disabilities are suffering from neglect and rejection in inclusion classes from their typical peers and general

education teachers. This rejection is due to their unusual behavior and their lack of social skills. The social neglect affects the emotional well being of students with disabilities, which leads to a more isolated social life and low self-esteem. This negative view toward students with ASD contradicts the aim of inclusion schools. The group most affected who are facing barriers in public school life is students with Asperger Syndrome (AS). They often exhibit difficulties with social functioning, although most of them have a high IQ. They face many obstacles to get along with their peers and to be involved in school activities.

Researchers such as Jordan (2003) and Kuncie (2003) assured that students with AS would progress in classroom settings if they were provided with the proper behavioral intervention and social skills training. The emotional effects of social skill deficits may not appear in a young child, but they affected adolescents when they feel their own inability to interact with peers (Klin & Volkmar, 2000; Myles, Barnhill, Hagiwara, Griswold, & Simpson, 2001; Tantam, 2003). Many approaches have been established as a means to further the social skills of students with AS, including social curriculum, role-playing, and a variety of structured recreational activities. While many of these approaches have been proven successful with students with AS, there is little research in the influence on the students' ability to cope with or avoid bullying and intimidation in the classroom.

Due to the lack of such services and an approved social curriculum that benefits students with Asperger Syndrome, a plan for an after-school program for AS students in KSA schools is needed. This after-school program will focus on students with social skill deficits by discussing a combination of recreational activities and an appropriate social

curriculum; it will examine ways to help students with Asperger Syndrome to function successfully in social settings. Moreover, it will also delve into the issue of students with AS being subjected to bullying and will use methods through which such children could be protected from being intimidated and bullied, so that their social performance could be improved. Bullying has a severe impact on such a vulnerable population, and it presents obstacles that prevent social blending. This project's target audience would be special education teachers of students with Asperger Syndrome in girls' elementary inclusion classrooms, in Jeddah, Saudi Arabia.

With the increased recognition of Autism Spectrum Disorders and the lack of services provided in Saudi public schools, there is a pressing need for an effective intervention program. One of the purposes of this project is to address the bullying issue which are of paramount concern regarding children with autism and the related disorder of Asperger Syndrome.

This project addresses the growing concerns and approaches currently implemented to facilitate the development of social skills among students with AS. Additionally, it will identify methods that are effective in the development of skills that prepare AS students to cope with bullying behaviors and intimidation. School staff and parents should collaborate on tailoring and implementing the behavior support curriculum. Frequent observation will be ongoing to document children's achievements in order to strengthen social behavior.

Program Objectives

- To create appropriate social curriculum and recreational activities to encourage social growth
- To provide special education teachers with various methods to improve the social functioning of students with AS
- To teach students with AS problem solving strategies.
- To create bullying-free classes by raising the awareness for bullying

Significance of the Program

Social skills curriculum can assist teachers' delivery in help children with AS learn to react to the world and interact appropriately in different situations. These students will learn proper social behavior patterns by carefully practicing chosen behaviors. Improving the social skills of students with AS will increase the likelihood that others will respond favorably to them, thus creating a lesser chance of victimizations by bullies.

LITERATURE REVIEW

Asocial skills are defined as the “socially acceptable learned behaviour that enables an individual to interact effectively with others and to avoid or escape negative social interactions with others” (Elliot, & Gresham, 2007, p. 6). In order to be considered socially competent, it is necessary to demonstrate social skills in a way that adheres to social conventions (Merrell and Gimple, 1998) and to use the social skills to respond appropriately to other individuals’ emotions and thoughts (Bauminger, Shulman, & Agam 2004). The process of learning social skills, called socialization, is impossible without communication, and in order to communicate, people need to learn certain communications skills. People who have Asperger Syndrome manifest deficits in social abilities which create barriers to successful communication, daily difficulties, and negative long-term outcomes (Stichter, O’Connor, Herzog, Lierheimer& McGhee, 2012).

As noted by Dawson (2008), it is hypothesized that a lack of normal attention to social stimuli, such as voices, faces, and emotional expressions, deprives the child with Autism and disrupts normal brain functionality, causing behavioral issues and social development problems. Language use is atypical in people with Asperger Syndrome, even though speaking is generally acquired without any delay. Oddities in pitch, loudness, prosody, rhythm, intonation, abrupt transitions, verbosity, idiosyncratic or formal speech, and miscomprehension of literal interpretations are some of the abnormalities (Dawson, 2008).

It is challenging to deal with deficits because this unquestionably has to be a team effort due to generality, without which positive results cannot be possible. The

collaboration roles of teachers, parents and other students are different when dealing with a child diagnosed with AS. Moreover, there is no go-to treatment that can be regarded as the best in all cases, and each approach must be individualized for each candidate.

Elder, Caterino, and Chao (2006) stated that treatment is multifaceted and complicated, and may be long term. The treatment of Asperger Syndrome involves special education, occupational therapy, speech and language therapy, psychotherapy, and psychopharmacology. A treatment program typically includes:

- Training in social skills, in order to establish effective interpersonal interactions
- Cognitive behavioral therapy to improve the management of stress-related anxiety and uncontrolled emotions, as well as to combat the onset of obsessive interests and repetitive routines
- Drug therapy for the treatment of disorders that tend to coexist with AS (for example, serious depressive disorder or anxiety disorder)
- Occupational therapy or physical therapy for the treatment of deficits in sensory integration and motor coordination
- Interventions related to social communication
- Training and family support, especially for behavioral techniques, should be developed in the home (Myles, 2003, p.124)

In a study conducted by Whitby, Ogilvie, C., & Mancil (2012), they have discussed methods that can be adapted in helping children with Asperger Syndrome. Whitby et al (2012) noted that when social skills are taught in a general education setting, the general educator is also the primary social skills instructor (Whitby et al., 2012). Usually, general educators will work together in a team to determine goals, interventions,

environmental and curricular modifications, and are involved in the decision-making process for [a student's] IEP (Whitby et al., 2012).

As stated earlier, the individual implementation of behavior strategies is laid out to meet a student's emotional goals on the Individualized Education Plan; it is therefore the responsibility of the IEP team to determine how the social skills lessons will be provided (Whitby et al, 2012). In this structure, parents and families also play an important role in the life of a child because they are involved in their children's therapeutic processes and learning processes. Facilitating social skills development is one of the primary goals, and therefore direct practice and contextualizing social skill practice is needed where cooperative learning takes place among students with AS and their typical peers (Whitby et al, 2012). Gresham and Elliot (1990) mentioned that in a survey of mothers of children with AS, mothers ranked the social skills training as the most effective intervention strategy.

Social thinking is the process of thinking about how people receive, encode, store and deliver information according to different situations they face. Social thinking is demonstrated by effective communication, personal problem-solving, organizational skills, written expression, and reading comprehension. These aspects of learning revolve around basic social mores, something which is not very familiar to students with AS. Teachers helping students with AS make use of various tools, such as scope and sequence, direct instruction, social stories, acting lessons, and self-esteem building. These tools convey to AS students behaviors that can be expected in given situations. Via an investigative study, Elder, Caterino, and Chao (2006) found that children with autism face more difficulty than typical children in using their social skills and communicating

with other members of society.

Theory of Mind Intervention Model

Theory of Mind (ToM) is the ability to attribute mental knowledge, feelings, desires, imagination, and intentions to oneself and others and to understand that others have their beliefs, intentions, and knowledge that are different from one's own. Baron-Cohen, Leslie, and Frith (1985) concluded that in autistic children there is a lack of Mind Theory. Heinz, Wimmer, and Perner (1983) explained how to test the student's theory of mind by a sequence of questions (Figure1). In this example, the test assesses the student's ability to detect and recognize the others thoughts. In this example, the student will be told the following scenario: Max puts a chocolate bar in the green cupboard and goes to play outside. Meanwhile, Max's mom comes in to the kitchen, and transfers the chocolate bar from the green cupboard to the blue cupboard while Max is outside. When Max comes back into the kitchen, where will he look for his chocolate bar?. The student's answer will declare if he/ she has a theory of mind. The student has a theory of mind if he/she says: Max will look in the green cupboard because he was outside when his mom put the chocolate bar in the blue cupboard. If the student's answer is that max will look in the green cupboard because his mom put it there, he/she does not have theory of mind (Frith and Frith, 2005).

Figure 1: ToM test example: the chocolate bar



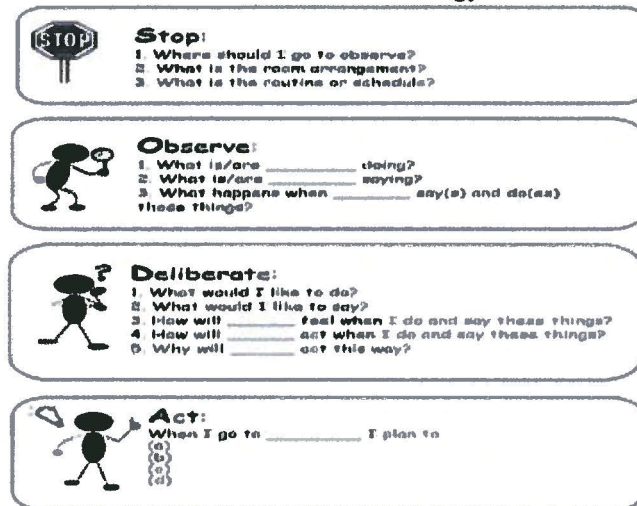
Heinz, Wimmer, J. Perner. (1983), Beliefs about beliefs: representation and constraining function of wrong beliefs in young children's understanding of deception *Cognition*, 13, p. 123

Bellini and Hopf (2007) engaged in a study to discover the best social skill tool for children and adolescents with autism. The researchers designed a tool—an autism social skills profile—to develop a comprehensive measure for regulating intervention and to provide a measure of intervention outcomes. The study is limited in its representation of how theory of mind applies to children with Autism.

Social Behavioral Learning Skills Model

Bock (2007) researched the grounds on which behavioral learning skills should be introduced in schools, colleges and universities. She not only attempted to prove her point theoretically but also introduced a strategy called Stop-Observe-Deliberate-Act (SODA), which is intended for use with children and adolescents with autism to give them social skills training. The SODA strategy teaches students to self-monitor their thinking process, guide their social behavior, and help them participate appropriately in different social settings. It is a good system in relation to social skill intervention, as it helps to understand how behavioral learning will affect children.

Figure 2: General overview of the SODA strategy



Bock, M. A. (2001). SODA strategy: Enhancing the social interaction skills of youngsters with Asperger Syndrome. *Intervention in School and Clinic, 36*

Systematic Desensitization

Goldfried (1971) defines Systematic Desensitization (also known as graduated exposure therapy) as an approach that works to enable individuals with autism and anxiety disorders to overcome their fears. For individuals with autism in particular, systematic desensitization helps them develop self-control and raise their self-esteem. Goldfried (1971) identified the fears that are present in children and that interfere with their use of social skills. Systematic desensitization is an effective model to facilitate positive social skills. This research is a good representation of how social intervention can work in the situations of anxiety experienced by young people in particular.

Social Skills Training

Social Skills Training is a behavior therapy used by therapists, teachers, and trainers in order to help those who have difficulties in social life (Heinssen, Liberman, and Kopelowicz, 2000). Kaiser & Trent (2007) pointed out some techniques that can be used by teachers and guides for social skills training. They suggested that social skills

should be taught as a subject and students should learn in groups, among several other methods. Their study gives a detailed description of multiple options for how social skills trainings should be conducted. According to Geller (2008), individuals who are having social behavior problems should be enrolled in social groups. Kaiser and Trent's research gives a detailed solution of social intervention and provides a helpful guideline for people who are not familiar with the role of social groups and their contributions toward developing social skills.

ILAUGH Model

In an article, Winner (2009) described the development of social learning and social communication in relation to social skills. This model is a framework for social thinking skills and concepts needed in order to process and react to social situations and social problem solving. Teachers, special educators, and speech pathologists must work collaboratively to apply this model in classrooms to enable success among ASD students.

ILAUGH stands for:

- I Initiation of communication or action
- L Listening with eyes and brain.
- A Abstract and inferential (weak semantic understanding).
- U Understanding perspective.
- G getting the big picture.
- H Humor/Human relatedness.

Gagnon and Robbins (2001) recognized that students with AS are confronted with challenges in middle and high school settings. For most students, school is a time for

socializing, but for students with AS, school is described as a social zoo. In order to avoid the intense social mixture, the teachers at the schools where Gagnon and Robbins (2001) conducted their study allowed the students with AS to leave their classrooms five minutes early, providing a good way for AS students to relax mentally from the sensory overload experience.

Another concept that the ILAUGH model considers is that teachers may lack understanding of their students' disability. This often results in feelings of frustration among teachers when students cannot generalize and apply what they are learning. For instance, a student is taught to respect a teacher; normally this would be applicable to anyone in authority, but the AS student may not be able to distinguish and apply this teaching; hence the respect is only directed toward the person initially used as the target of respect. The students' lack of ability to apply the teachings may cultivate frustrations in the teachers, who may see their efforts being wasted.

In the process of teaching students with AS how to generalize, other techniques have also been identified. Myles and Simpson (2001) suggest the use of scope and sequence, a method that will not only help students generalize the social skills taught to them but will also help with academic learning. The scope and sequence technique has been considered a basic essential when expecting generalization from a student. Focusing on tone of voice and verbal and nonverbal signals, scope and sequence allows students to understand what is expected of them. If these basics are not taught well, a student's ability to generalize may not be as successful.

Classroom assignments may be affected if the ability to generalize is not emphasized. As explained by Jackson (2002), a math book open to a certain page, given

to a student with AS, does not mean that the task of solving the questions has been communicated. The instructors should verbally identify and communicate all the necessary steps to complete an assignment rather than assuming that the AS students will understand the process. As with all students, students with AS possess unique abilities in some areas while they struggle in others. Many students without Asperger Syndrome require exceptional help and attention in order to bring out their hidden talents; so do students with the disorder, but the strategies differ.

The research that has been done draws two conclusions about academic learning for students with AS. First, the instructor must understand what AS is and how it affects a student. Without proper knowledge of the syndrome the instructor will not be able to relate to nor communicate effectively with the student. If misunderstood, actions as a result of the syndrome may be treated as behavior issues and thus not dealt with properly. Second, the instructor should be aware and educated regarding effective teaching strategies, and the best method for this being collaboration among educators. Hunt, Soto, Maier, and Doering (2003) conducted a study where collaboration between general education teachers and special education teachers was investigated. Students at risk were able to raise test scores under the guidance and strategies of these teams. According to Wright and Wright (2007), the Individuals with Disabilities Education Act (IDEA) (2004) ensure that students with disabilities should be taught in the least restricted environment to obtain the best education possible. This can only be a result of instructors' careful evaluations, effective selection and implementation of strategies and the instructors' willingness to continue learning new techniques of teaching.

For a student with AS, collaborative strategies are focal points for the success on

the road of their education. The ILAUGH Model is a useful model and is well explained in a large body of research, which helps teachers, parents and professionals to understand the ILAUGH Model. Understanding the ILAUGH Model will encourage parents collaborating with teachers and be responsible about implementing this method at home. The ILAUGH Model is a beneficial model for anyone who wants to learn about effective methods of utilising social intervention.

The previous studies can help to draw a detailed conclusion about the social skills that are essential components of communication used for most interactions socially. Different theorists have different views of social skills learning, but one thing on which all agree is it consists of interpersonal and intrapersonal skills. Many studies have been conducted in order to find the best methods for interventions of the social skills for children with autism. Theory of Mind explains that this component is lacking in children with autism, and according to another researcher; lack of social skills is the main cause of caustic personality. There are many studies that define in detail the ways of overcoming the obstacles present in social interventions. These scholars have concluded that social training is the best solution for autism, and one study suggests that social groups are playing the key role in development of social skills in children. Another study holds that, according to the ILAUGH model, teachers, professionals and parents have to play their part in developing children's social skills, and that the development of social skills has an impact on academic performance (Maier, and Doering, 2003).

In conclusion, all of these studies are good models for enabling people to understand the reasons for social skill problems and ways to develop social skills, and for making children better contributors of society in the years to come. Most of the studies

are theoretical, so in order to have a better understanding of how these theories are applied, an examination of praxis is necessary.

Appropriate Social Curriculum for Students with Asperger Syndrome

In the public system of schooling, a student with Asperger Syndrome not only has to encounter traditional curriculum education, but also must learn social behavior, which is important for successful academic achievement and interaction in social situations. Since group projects require social interaction with other students, those with Asperger Syndrome have to face various problems (Myles & Simpson, 2001). These problems lie in the hidden rules, which are defined as important social skills that everyone knows but that are not taught directly. This includes assumed roles, adult or student expectations, idioms and metaphors.

Increased awareness of these hidden rules and the limited skills to understand, students with autism are marginalized. Educators must develop social skills strategies that cater to the diverse academic and social needs of all students. These basic principles have proven effective for students with and without AS. Every child is different and needs to be evaluated according to their strengths, talents and weaknesses. This evaluation is of no help without a determined instructor who believes a student can reach appropriate grade level requirements. Instructors willing to learn, accept changes and implement new strategies are the best assets a student can possess in order to obtain a quality education.

Students with Asperger Syndrome as Victims of Bullying

Olweus (2013) mentioned that “a student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students” (p. 9). Bullying can be a direct such as fighting and name-calling

Olweus, (2013) or an indirect behavior such as spreading of rumors and social exclusion (Brock, Nickerson AB, & O'Malley, 2006). Students with Asperger Syndrome are more likely victims of bullying, since they have all the qualities of the "typical" victims: loners with no friends, and who do not mingle with many people, different from the rest of the students, clumsy and meek body language. These characteristics lead students with AS to fall prey to bullying. In most cases, they do not mention their ordeal to their parents, thereby silently suffering at the hands of school bullies. The reason behind not relaying these problems lie in the fact that such children do not know what to say and only do so when asked specifically (Olweus, 2013).

In many schools, the staff has been found to ignore bullying against students with Asperger Syndrome because the bullies in most cases tend to be the popular students or athletes, thereby making them almost untouchable in the eyes of teachers and coaches. There are cases where teachers have told the parents of students with Asperger Syndrome that since their child is different from the rest, he or she brings bullying on him- or herself, indirectly alluding to the child's disorder as the reason behind his or her being bullied. Furthermore, since students with Asperger Syndrome are usually unable to relay their side of the story and bullies are proficient at making things up and feigning victimhood themselves. The perpetrators get away with bullying, and often the children with AS are expelled from the school as a result. One of the main problems with bullying of students with AS is that most cases take place off campus, where teachers do not have a chance to witness the activity and take appropriate action.

Measures to Check Bullying Against Students with Asperger Syndrome

Although bullying is a significant problem for students with AS, certain measures could prevent these incidents. Incorporation of an anti-bullying clause into the Individualized Education Plan, for example, will go a long way in preventing the child from being bullied. As a result, even if the child were bullied, the school administration would be held accountable for the occurrence, and would be taken to task. Working through the PTO would help establish an anti-bullying program if the school does not have one already in place. A model by Dr. Dan Olweus, called the *Olweus Bullying Prevention Program* (OBPP), was first implemented in Europe in the 1980s and has been tremendously effective in dealing with the menace of bullying. It is based on having a bullying coordinator, who is assisted by monitors present in restrooms, lunchrooms, playgrounds and corridors, thereby helping to check bullying. The Olweus Bullying Prevention Program is considered a "model program" by the U.S. Department of Health and Human Services' Substance Abuse and Mental Health Services Administration (SAMHSA) and is a proven way for a school to intervene (Olweus, 2013).

Important Things for Teachers to Know

Teachers and school personnel need to be mindful of AS students' characteristics, including the individual behaviors of students. This understanding should be based on practical, real-life examples and methods, with access to Internet and print sources (Safran, 2001). They should bear in mind the differences that each student with Asperger Syndrome exhibits and should also consider the level of severity of the disorder on a case-by-case basis; there are bound to be variations, as the characteristics and severity of AS tends to differ from person to person.

Measures to Help Students with Asperger Syndrome

Careful structuring of group work and seating arrangement, provision of safe havens, protecting children from themselves and preparation for alterations in routine are some measures that teachers can take to improve the social functioning of students with AS.

Teachers should take care that students with Asperger Syndrome are not seated near aggressive or bullying students. Moreover, safe havens need to be provided where AS students can work without any distractions, and they should be kept away from noisy places where there is a lot of commotion.

To sum up, people need to realize that some students with Asperger Syndrome are intelligent and creative. Many are astute scientifically, mathematically or technologically, and can be trained for great successes in life. However, their problems are mainly social (Ledgin, 1998). It is imperative to know that as people with AS age, depression may set in, leading to isolation and an effect on their performance socially, and this could eventually lead to suicide (Wolff, 1995). Having a school environment that accepts even a child despite their disabilities would not only help the child but also benefit the society at large, and this foundation of acceptance could deter such isolation and marginalization.

Recreational Activities to Help Students with Asperger Syndrome

It is important to understand the role of recreational activities in the social functioning of a child with Asperger Syndrome. The idea behind involving as students with AS in recreational activities is to help them understand others and to allow them to interact better with other children. Moreover, after increased social interaction, children with an Asperger disorder tend to feel more comfortable socially (Fombonne, 2007).

Based on evidence from multiple studies within the last 30 years, physical activity also tends to have a positive impact on motor coordination and Asperger Syndrome behavior. The focus of these activities should not be use of language, understanding or imagination since these complex concepts lead to frustration. In order for children with AS to enjoy activities, the focus point should be on socialization completely. However, watching television, and reading books to children with AS is beneficial in the development of social and communication skills, as it gives them examples of how people interact and reinforces the social training skills they learn face to face. Children with AS tend to enjoy physical activities such as trampolines, bicycle riding, rocking horses, basketball, climbing, and playground structures like slides, sand pits and swings.

Furthermore, children's visual spatial skills are improved by a large extent as a result of playing with toys and through other physical activities, which enables the development of spatial and visual sensory stimulation. Activities that involve matching color and shapes, such as jigsaw puzzles and other toys, are highly beneficial for children with Asperger Syndrome.

Moreover, as interaction with other children is important for children with AS, they should go to public places such as parks and zoos so they can interact and improve their social functioning. For teenage children with Asperger Syndrome, recreational activities of a different nature, such as rock climbing, skiing, hiking and working out at the gym are beneficial for them to achieve successful social functioning.

SHOOT FOR THE STARS PROGRAM

As the early ages in a child's life are the most important and are the stepping-stones, this program will be for elementary students in Jeddah, Saudi Arabia. This program curriculum is flexible, continuous and diverse. It is a framework for a program for students with AS in the regular education classroom.

Students with Asperger Syndrome will be enrolled in a one-hour after-school program called *Shoot for the Stars*. It will be from Saturday through Wednesday, as the weekends in Saudi Arabia are Thursday and Fridays. The teacher-to-student ratio is 1:5; the teachers will assess students during the day while they are in the classroom, at lunch, and during recess time to spot each individual's particular strengths and difficulties. After school, the teachers will follow an individually-designed social skills plan for each student. Many interventions that work well for one student on the Autism Spectrum are not effective for others. Individual assessment, baselines and a clear method of measuring effectiveness are essential. Parents and caregivers are encouraged to attend the after-school session at least once every month. The teachers will assess the students' progress after the initial assessment and throughout the program and will evaluate progress toward behavioral intervention goals by identifying biweekly problems using social behavior rating scales. Special education teachers will make their facial expressions, gestures, and modeled actions more noticeable for children with Asperger Syndrome so it will be easier for students to simulate.

Selection of Students to Participate

Schools psychologists, special education teachers, and pediatricians will refer students to participate in this program. Potential participants will be screened to determine eligibility by the program staff before the beginning of the school year. Qualifications will include attendance at mainstream schools and having been diagnosed with Asperger Syndrome. The students selected for this after-school program will be provided transportation to the program setting and then to their homes. All services, including recreational activities, materials used in lessons, and transportation will be free. To attend the program and its activities, written permission from parents and guardians is required.

Instructors and Resources

Instructors will be from the Special Education Department Staff at King Abdul Aziz University, and will include special educators and occupational therapists from other organizations as well. The program will be held at the Jeddah Autism Center.

Behavioral Assessment

At the beginning of the year, special education teachers will assess students with Asperger Syndrome. The Autism Social Skills Profile (ASSP) by Bellini (2006) will be used to determine and work on each student deficit. ASSP is an assessment tool that provides a comprehensive measure of social functioning for children and adolescents with ASD who are between the ages of 6 and 17. The ASSP assess initiation skills, social reciprocity, perspective taking, and nonverbal communication skills (Bock, 2001). The result of the ASSP measurement will be used in designing individualized intervention plans and in monitoring students' progress. To assure the creation of effective social

behavior interventions, the assessment must consider careful identification, classification, and selection for each case (Bock, 2001). There are six widespread methods used by special education teachers in gathering data about social skills, but the most successful method of assessing social deficit is the integration of multiple assessment methods. A mixture of behavior rating scales, interviewing, self-report instruments, projective-expressive techniques, and soichometric techniques is a great way to provide reliable information and target the most important problems.

- I. Direct behavioral observation consists of
 - A. Analyzing the student's behavior in natural settings
 - B. Several observations
 - C. Behavior rating scales
- II. Social Skills Rating System (Gresham & Elliott, 1990)
- III. This is a multicomponent social skill rating system aimed at behaviors that affect parent-child relations, teacher-student relations, and peer acceptance. It is one of the few social skills rating scales that include a comprehensive parent report version.
- IV. The Walker-McConnell Scales of Social Competence and School Adjustment (SSCSA; Walker & McConnell, 1995)
- V. The elementary version contains 43 positively worded items that reflect adaptive social-behavioral competencies within the school environment and includes three empirically derived subscales (Teacher-Preferred Social Behavior, Peer-Preferred Social Behavior, and School Adjustment Behavior).

VI. Sociometric assessment techniques:

These techniques, such as peer nomination, peer rating, and peer ranking, are typically used to measure peer acceptance, not to measure social skills (Landau & Milich, 1990). Sociometric procedures are considered powerful predictors of future social outcomes (e.g., McConnell & Odom, 1986). Sociometric assessment is done in classrooms, and all students are included in the assessment to avoid drawing negative attention to the student with Asperger Syndrome (Merrell, 1999).

VII. Self-report instruments and projective–expressive techniques shed some additional light on children’s social skills and related concerns but should never be used as a primary assessment source because of some technical and practical concerns.

General Guideline for the Proposed Program:

1. Review the assessment data and link the results to intervention planning.
2. Each student will be enrolled in an activity where he or she could meet with peers and practice the new learned skills. Provide students the chance to practice what they have learned by rehearsal and give the student instant feedback on their behavior.
3. Provide students the chance to practice what they have learned by rehearsal and give the student instant feedback on their behavior.
4. Rotate the setting between the school and a place where the student can attend a recreational activity, such as the gym. Practice skills acquired in treatment with unfamiliar peers and adults in unfamiliar settings.

5. Teaching social thinking and related social skills appears to provide a deeper-reaching solution.

Recreational Activities:

1. Field trips: museums, zoos and parks to interact with typically developing peers outside of the treatment setting
2. Swimming lessons
3. Martial arts lessons
4. Book club
5. Art club
6. Ipad applications that are designed for students with Asperger Syndrome
7. Dinner out in local restaurants
8. Camping during the weekend

Follow-up Assessment

1. Short-term and long-term follow-up
2. Use blinded observer ratings to determine treatment response

Programs to Improve Social Engagement

Most students with Asperger Syndrome want to have friends but show an inability to talk to people or initiate a conversation, they do not understand irony, jokes and metaphors, and they show poor body language. Therefore, here are some ways to develop their social interaction:

1. Emotion Circle Time

Students will be introduced to the concepts of empathy and sympathy by sharing their feelings in the emotion circle time. They will share their own experiences and emotions with each other, and they will practice putting themselves in another person's situation. The teacher will ask the students what they would feel if they were in their friend's shoes to stimulate them to think about other perspectives. When the students grasp the concepts of empathy and sympathy, they will be required to ask emotional questions to their family members and peers. Asking these questions will be their daily task, and they will get a star for each time they ask an emotional question. During the emotion circle time, the students will be taught the importance of respecting each other's feelings and points of view. They also will be taught perspectives of personal space.

2. Social Stories

Social stories are short stories that help students with Asperger Syndrome learn social skills, how to respond in different situations, and how to cope with frustration and anxiety. The teacher will read the story, explain the situation, and ask questions about various ways to respond. The teacher will explain, give examples and suggestions, and then revise these repertoires of responses with the students. Social stories can be in the format of flash cards, videotapes, big books and booklets, and photo albums.

Guidelines for writing and presenting the social story:

- a) Write in the first person; use short sentences and familiar vocabulary to help the students in comprehending the concepts.
- b) Use adverbs of frequency to build flexibility.
- c) Describe the situation clearly (who, when, why, what, how).

- d) Signal the beginning and the end of the activity.
- e) Describe the consequence of the behavior.

3. Role-Playing:

This is a fun and exciting approach that has been proven to work. In the role-playing, students will practice what they have learned from the emotion circle and social stories. The teacher will use a real incident from one of the student's lives, will pause the role-playing as needed, and survey the students for new interaction strategies. The student will be asked to role-play the suggested solutions. The teacher will continue this process with other students' real-life incidents.

Written example of role-playing:

Waiter: Good evening. Are you ready to order?

You: Yes, please. I'd like the chicken sandwich.

Waiter: O.K. And what would you like to drink?

You: Orange juice, please.

Waiter: Would you like anything else?

You: No, that's all for now. Thank you.

Waiter: O.K., your order will be ready in ten minutes.

4. Video Modeling

Video modeling and self-video modeling (SVM) are effective intervention strategies for addressing social communication skills, functional skills, and behavioral skills in children with Asperger Syndrome. A video modeling intervention typically involves an individual watching a video demonstration and then imitating the behavior of

the model. It involves demonstration of desired behaviors, and it can be used with adults, siblings, and peers as well.

5. Sensory Integration Therapy

For students who have sensory integration disorder, sensory integration therapy will be provided. It focuses on activities that challenge the student with sensory input. The therapist then helps the child respond appropriately to this sensory stimulus.

6. Stop-Observe-Deliberate-Act (SODA)

Students with AS often suffer from stress and anxiety and are withdrawn. These characteristics are triggered by the lack of social problem-solving skills, and by challenging social situations, loss of control, and changing of routine. From the perspective of educators and peers, students with AS suddenly go into tantrums, meltdowns or aggressive behavior. In fact, students with AS go through a cycle of tantrums, rage, and meltdowns; it doesn't happen unexpectedly. There are three stages for this cycle: the rumbling stage, the rage stage, and the recovery stage (Albert, 1989; Myles & Southwick, 2005). It is extremely important for educators to learn how to spot the red flags of the negative behavior before it happens, and for the students to be aware of their feelings, how to control their emotions, facilitate sensory awareness and foster self-awareness. As noted by Bock (2001), Stop, Observe, Deliberate, and Act (SODA) is a social behavior learning strategy that support students with Asperger Syndrome by helping them "attend to relevant social cues, process these cues, ponder their relevance and meaning, and select an appropriate response during novel social interactions" (p. 273). The teacher will create individualized SODA visual strategy for each student. Each SODA visual will contain questions and statements that the student will use to process

thinking. These questions and the statements will focus on the social problem the student has (see Appendix A).

At the beginning, the teacher will have to model SODA but after many sessions, the teacher will model part of SODA and the student will do the rest. The teacher will review SODA concept with the student at the beginning of each session to ensure that the student had grasped the concept fully. Once the student can apply SODA without the teacher interference, he/she will be encouraged to generalize his learning and use SODA in natural settings such as classroom, cafeteria, and playground.

Student Support Team

A support team will be assigned for students to provide help during the school day. The team will make sure general education teachers are aware of their students' needs and abilities. The keys to success in any program are that it must be continuous, flexible and the diverse. If these three factors are kept in mind, the program will be a sure victory. The first fundamental tool teachers need to use is getting to know the child, their life at home, their parents, and their interests. Getting to know the student is the first step in building the relationship, choosing the best reinforcements, focusing on the student's strength and building on their points of weakness. Secondly, establishing the class as a labeling-free zone will improve students' self-esteem and open teachers' minds as well as classmates'. Thirdly, staff support members will raise bully awareness and establish a bullying-free zone. Fourth, staff support members must establish a parent-teacher relationship. Since no one knows the children more than their parents, teachers must regularly hold meetings with the parents. And last, teachers will follow a specific social and recreational curriculum.

Professional Development

It is likely that inexperienced general education teachers will have difficulty working with students with Asperger's Syndrome. For this reason, there is an increasing need to have a general education teacher handbook that explains the background and characteristics of AS and the best way to teach such students so they can perform with their highest potential. This handbook would include the following:

- Information about Asperger Syndrome
- The best methods for teaching a student with AS
- Working with parents
- Cooperating with special education teachers
- Preparing the classroom to accommodate the student
- Managing behavioral challenges
- Educating peers and creating an engaging classroom
- Utilizing the special interest of each student to improve their social skills and their engaging in conversation with their peers.

Routine and Schedule

The Shoot for the Star program will follow schedules, routines, and modification of learning environments to suit the students' needs. Since students with AS lack the ability to predict, the students will have schedules to follow and will be informed of any change ahead of time. Establishing consistency and predictability is a must to decrease feelings of anxiety and depression and to give students with AS feeling of control and stability. The visual schedule will be a great method to help students with AS to stay on track and follow the routine without stress.

S.T.A.R. Binder

Every student will have a S.T.A.R. (Students Track Astonishing Rising) binder to promote independence. The binder will have files where the teacher will provide a to-do list, a record of stars gained, upcoming events, a visual schedule, the student's emotion drawings, emotion question sheet, written task directions, and the student's want-to-do list.

RECOMMENDATIONS FOR IMPLEMENTATION

Since the Ministry of Education started inclusion in schools, there has been an increasing need to have a social skills program in Saudi Arabia. Including students with special needs in the same building with their typical peers for the full school day or for part of it will decrease their social isolation and make them part of our everyday lives. However, without the proper support, having students with disabilities in the mainstream school population will harm them more than benefit them. Gaining the necessary social skills will improve their success in interacting with peers and building friendships. With a program such as Shoot for the Stars, the inclusion experience can succeed in benefitting students with special needs academically, emotionally, and socially.

There are several obstacles that this program might face, however:

- Inexperienced general education teachers and the lack of communication and cooperation between general education teachers and special education teachers.
- Students' and teachers' lack of awareness of the importance for inclusion, which may lead to communication problems and the general education teacher may be unwilling to make modifications in the classroom
- Failure to implement bullying policies
- Bullying and its negative emotional effects on students with AS
- In Saudi Arabia, education is segregated between the sexes at all levels, and that requires having two different settings (one for boys and one for girls) and having more staff
- Government process is extensive in gaining permission for such project/ program

Professional Development

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- Information about Asperger Syndrome
- The best methods for teaching a student with AS
- Working with parents
- Cooperating with special education teachers
- Preparing the classroom to accommodate the student
- Managing behavioral challenges
- Educating peers and creating an engaging classroom
- Using simple and clear sentences and explain any metaphor before use it.

Bullying Prevention

The school will not tolerate bullying whether it was physical, emotional, verbal or even cyber. Schools should be a healthy environment where all students are treated equally and fairly, feel safe and secure regardless of color, race, intelligence, gender and religion. Students have to be encouraged to grow emotionally, academically, and socially. Any student who participates in bullying will be punished according to the seriousness of the situation. Bullying policy will be posted on the schools websites and wherever it would be accessed.

Some of the discipline will be the following:

1. Meeting the parents and children and discussing the situation with them.
2. Withdrawal of favored activities
3. Exclusion from the school

For the Bullying Prevention Week, school faculty as well as students from all grades will participate. Staff support members will introduce an anti-bullying speaker on Monday to raise awareness between students.

"Treat others as you would like to be treated" is a universal goal in most cultures. Bullying Prevention Week will work to develop an awareness and appreciation of this simple goal between students. For the following days, each class will design posters, videotape a short clip, create presentations, design anti-bullying shirts, etc. All students must participate, and their names and pictures will be published in the city newspapers and in a PowerPoint presentation held at the school front desk. Parents and caregivers will be welcomed to participate. Students' products will be sold at the school fair, and money earned will be used for field trips and school party rental costs.

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APPENDIX A

Suggested SODA Questions and Statements

| SODA components | Questions & statements |
|-----------------|--|
| Stop | <ul style="list-style-type: none"> • What activities occur in different parts of the room? • In what order do these activities occur? How long should I observe? |
| Observe | <ul style="list-style-type: none"> • How do people begin conversations? • What nonverbal social cues (i.e., body language, hand gestures, facial expressions, eye gaze, proximity, and voice intonation) does this person use? • Is this conversation (a) a social pleasantry, (b) an extended conversation, or (c) a private conversation? • How do people end conversations? |
| Deliberate | <ul style="list-style-type: none"> • What will I do when following this activity schedule or routine? • How will I know when others would like to visit with me again at a later time and another place? • How will I know when others would like to engage in a private conversation? • How will others likely perceive my planned action? • How will others likely perceive my planned conversation topics? |

| | |
|-----|--|
| Act | <ul style="list-style-type: none">• Pose a new topic to extend the conversation.• What is this person's perception of my actions?• What is this person's perception of my conversation topics?• How does this person's perception of my actions and conversation topics differ from my expectations?• Will all others share this person's perceptions of my actions and conversation topic?• How will I know when others have positive perceptions of my actions and conversation topics? |
|-----|--|

Bock, M. A. (2001), "SODA strategy: enhancing the social interaction skills of youngsters with Asperger Syndrome. Intervention in School and Clinic," Intervention in School and Clinic, p.276

APPENDIX B

Sample SODA Teaching Script retrieved from Bock, M. A. (2001). SODA strategy: enhancing the social interaction skills of youngsters with Asperger Syndrome. *Intervention In School And Clinic*, 36(5), 272-278

This teaching script is designed to teach SODA. Notice that the teacher first reviews the preskills of knowing the SODA components and their self-talk questions and/or statements within the context of the previous day's lesson. Then she or he guides the student through a social skill lesson using SODA and a videotape of a new social situation this student encounters on a daily basis.

Teacher: Yesterday we learned a strategy we can use in new social situations, like visiting with a new student in the cafeteria. What is this strategy?

Student: SODA

Teacher: That's right! Now tell me what the letters S, O, D, and A represent? [Teacher uncovers the SODA icons on the left side of the SODA transparency (Figure 1).]

Student: S represents "stop." O represents "observe." D represents "deliberate." A represents "act."

Teacher: Exactly! When meeting a new student in the cafeteria, you must stop, observe, deliberate, and then act. While stopped, what 3 questions must you ask yourself? [Teacher uncovers the "stop" selfquestions on the SODA transparency.]

Student: What is the room arrangement? What is the activity schedule or routine? Where should I go to observe?

Teacher: Right again! When meeting a new student in the cafeteria you must stop and ask yourself: What is the room arrangement? The room arrangement includes a lunch line, a food counter, a cashier, a seating area, and a food dump station. What is the activity schedule or routine? Students wait in line, select their lunch items, pay the cashier, select a table and chair, sit down and eat, and discard their tray in the dump station. Where should I go to observe? I can observe social interactions in the lunchroom if I stand to the right of the cafeteria entrance. While standing to the right of the cafeteria entrance and observing the new student, what 4 questions must you ask yourself? [Teacher uncovers the "observe" self-questions on the SODA transparency.]

Student: What is the new student doing? What is the new student saying? What is the length of her typical conversation? What does the new student do after she's finished visiting?

Teacher: Exactly! While standing to the right of the cafeteria entrance and observing the new student you must stop and ask yourself: What is the new student doing? The new student is standing within a foot of the person with whom she is visiting. She is looking the other student in the eye and smiling. She sometimes gestures with her right hand. What is the new student saying? She greets her neighbors and introduces herself to them while she waits in line. She says, "Hello," to the cooks and cashier. She places her order and pays for it and then says "Thank you," to the cooks and cashier. She asks, "Is this seat taken?" when she reaches a lunch table. She then asks, "Would you mind if I join you for lunch?" before sitting down. She then visits about her morning classes and asks questions about various upcoming school activities. She answers questions about her previous school. She listens to the other students' conversations. She excuses herself before she dumps her lunch tray. What is the length of her typical conversation? It is between 1 and 2 minutes in length. What does she do after she is finished visiting? She listens to other students' conversations. As you join the lunch line and deliberate about your observations what 3 questions must you ask yourself? [Teacher uncovers the "deliberate" self-questions on the SODA transparency.]

Student: What would I like to do? What would I like to say? How will I know when the new student would like to visit longer or would like to end this conversation?

Teacher: Right again! When deliberating about your observations while waiting for lunch in the lunch line you must ask yourself: What would I like to do? I want to visit with the new student tomorrow during lunch, if possible. What would I like to say? I would like to say hello and welcome her to our school. I would like to ask her what classes she is taking. I would like to tell her what classes I'm taking. I would like to ask her how she likes our school so far. How will I know when the new student would like to visit longer or would like to end this conversation? I will watch her eye gaze and her proximity; when her eye gaze shifts from me and she begins to move away from me I will know that she would like to end this conversation. Now that you have decided what you'd like to do it's time to act. As you act what 5 questions or statements must you ask yourself? [Teacher uncovers the "act" self-statements and self-questions on the SODA transparency]

Student: Approach the new student with whom I'd like to visit. Say, "Hello, how are you?" Listen to her and ask related questions. Look for cues that she would like to visit longer or would like to end this conversation. End the conversation and walk away.

Teacher: Excellent! When you begin to interact with the new student you should tell yourself to do the following: Approach the new student with whom you'd like to visit. Remind yourself to stand about 12 inches away from her, establish and maintain eye contact, monitor your volume of speech. Say, "Hello, welcome to our school. I'm John Smith. I'm a freshman." Pause so she can introduce herself to you. Listen to her and ask related questions. After she tells you what grade she's in, ask her what classes she is

taking. Tell her what classes you are taking. Ask her how she likes our school. Look for cues that she would like to visit longer or that she would like to end this conversation. When her eye gaze shifts away from me and/or she moves away from me I know she would like this conversation to end. Also, if I run out of questions or comments it is time for the conversation to end. End the conversation and walk away. Tell her that I've enjoyed visiting with her and will probably see her in hall change. Then smile at her and walk away.

Teacher: Today we will use the SODA strategy to guide our interaction during a football game. [Teacher puts the videotape in the VCR.] Although you know Jim Blank, you may not have had many conversations with him. This afternoon we will use SODA to learn how to more effectively interact with Jim. When you enter the football stadium what is the first thing you must do?

Student: Stop.

Teacher: That's right. You must stop and ask yourself what 3 questions?

Student: What is the room arrangement? What is the activity schedule or routine? Where should I go to observe?

Teacher: Exactly. What is the physical arrangement? Students and family from our school sit on one side of the football field while students and family from the other school sit on the other side of the football field. Students sit in a group right behind the cheerleaders and beside the band. What is the activity schedule or routine? Students watch the football game and cheer with the cheerleaders during each quarter. They usually go to the bathroom and get refreshments in between quarters or during the halftime show. Where should I go to observe? I can observe from the entrance to the seating section of the stadium.

This process continues until the student has completed the SODA strategy. Since this script comes from the second day of training, the teacher completes the S, O, and D sections of SODA and the student completes the A section of SODA with help as needed.

Also, the teacher pauses the videotape to allow the student to complete the self-questioning parts of SODA. The teacher rewinds the tape so the student can practice observing the nonverbal social cues "Jim Blank" exhibits as well as the nature and length of his typical conversations during this football game.

APPENDIX C

The Autism Social Skills Profile (ASSP)

The ASSP is a checklist that provides a comprehensive measure of social functioning of children and adolescence who are on the Autism Spectrum. This tool helps to determine how often a student uses a skill or a behavior during social interactions or social situations without assistance from others.

| Frequency | Skill Area |
|---------------------------|------------|
| Never or Almost Never | |
| Sometimes or Occasionally | |
| Often or Typically | |
| Very Often or Always | |