Examining Effective Social Skills Interventions for Youths with Autism Spectrum

Disorder and Social Skills Deficits: The UCLA PEERS Program

Loredana Marchica

A Thesis

in

the Department

of

Education

Presented in Partial Fulfillment of the Requirements

For the Degree of Master of Arts (Child Studies) at

Concordia University

Montréal, Québec, Canada

March 2014

CONCORDIA UNIVERSITY
School of Graduate Studies

This is to certify that the thesis prepared

By: Loredana Marchica

Entitled: Examining Effective Social Skills Interventions for Youths with Autism Spectrum Disorder and Social Skills Deficits: The UCLA PEERS Program

and submitted in partial fulfillment of the requirements for the degree of

Master of Arts (Child Studies)

complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Signed by the final examining committee:

Dr. Steven Shaw   Chair

Dr. Elsa Lo   Examiner

Dr. Harriet Petrakos   Examiner

Dr. Miranda D'Amico   Supervisor

Approved by
Chair of Department or Graduate Program Director

Dean of Faculty

Date

Abstract

Examining Effective Social Skills Interventions for Youths with Autism Spectrum
Disorder and Social Skills Deficits: The UCLA PEERS Program

Loredana Marchica

The present study examines the efficacy of the Program for the Education and
Enrichment of Relational Skills (PEERS), a parent-assisted social skills group
intervention created at UCLA with a group of youths 13-17 years old with Autism
Spectrum Disorders (ASD) and social skills deficits. Over the course of 7 weeks both
youths and parents met twice a week and participated in their respective groups following
the PEERS program. Social skill improvements were measured using the *Social Skills
Improvement System-Rating Scales* (SSIS-RS; Gresham & Elliot, 2008) and the *Quality
of Play Questionnaire* (QPQ; Frankel & Mintz, 2011) at the beginning of the
intervention, at the end of the intervention, and at a 7-week follow-up. Results indicated
that after the program there were significant increases in assertion on Student Forms of
the SSIS-RS. Additionally, there were significant increases in Mean Get-togethers, Mean
Number of Friends Listed and a significant decrease in Conflict Levels on both Parent
and Student Forms of the QPQ. Results from the 7-week follow-up indicated significant
increases in social skills and significant decreases in problem behaviors on Student Forms
of the SSIS-RS. Further, there were significant decreases in Observed Conflict Levels on
both Parent and Student Forms of the QPQ. Parents also reported that participating in the
program provided them with invaluable resources and tools, as well as, increasing their
self-efficacy and providing them with emotional support from other parents who share
similar experiences. Implications of the PEERS program as a social skills intervention for
adolescents with ASD are discussed.

Acknowledgements

It goes without saying that a project such as this requires support, persistence and inspiration. Throughout the course of my degree there have been many individuals who have been instrumental in challenging me to think critically, and grow as an academic and researcher. For this, a debt of gratitude is owed.

First and foremost, it is with much appreciation that I thank my research supervisor Dr. Miranda D'Amico, for her motivation, patience and immense knowledge. Her expertise and insights have allowed me to gain a better understanding of the special needs population and the right approaches to developing research programs for their benefit. I am grateful for the time, help, and guidance she has provided me throughout this process and journey.

I would also like to thank my thesis committee: Dr. Elsa Lo and Dr. Harriet Petrakos. I am grateful for the challenges, and insightful feedback they have provided, allowing me to further develop my critical thinking, leading to a much improved final project. Additionally, I am grateful to the professors of the Child Studies program. They have stimulated me throughout this degree to become a scientific and critical thinker about various developmental and educational issues.

Throughout this experience I have also had the pleasure of meeting many talented individuals who have motivated and supported me in many ways. Thank you to my peers for making this journey a rewarding one. Special thanks to Stephanie Peccia for your help in this project and Corinne Lalonde for your encouragement, emotional support, and enthusiasm.

This project has allowed me the opportunity to meet some of the most inspiring individuals. Thank you to the adolescent participants of this research program for allowing me the great pleasure of being a part of their lives, even for the briefest of moments. Thank you to the parents, for not only being a part of the program as well, but for showing me what true courage and tenacity entails. Without them, this project would not have been possible.

To Daniel; your constant love, and assistance has supported me throughout this experience. You taught me the importance of humour in life, and have inspired me to appreciate every moment. This journey would have been the same without you.

I am also thankful to my brother, Davide, and my sister, Cinzia. You both motivate me in different ways to be a better student, sister and person. Knowing I always have you in my corner has supported me through all the difficult moments in life. Finally, I am extremely grateful to my parents for their on-going support, love, and encouragement. They have instilled in me the desire and determination to achieve every goal I set for myself. Above all, their strength has taught me the importance of hard work and dedication. You both are my inspiration and compass in life. You have been, and are, my true role models in many ways. For this, I will always be thankful.

Table of Contents

List of Figures

List of Tables

Introduction

Quality of life (QoL) is a complex concept, and its importance in the lives of individuals has led it to receive significant consideration throughout the past three decades (D'Amico, Miodrag, & Dinolfo, 2009). The World Health Organization (WHO) defines quality of life as the perception an individual holds on their position in life, "in relation to their goals, expectations, standards, and concerns" (D'Amico et al., 2009, p. 258). According to WHO, quality of life is a term used to ascertain well-being, which illustrates how well individuals feel about their environment. In order to assess quality of life, the most important aspects of the individual's life (called domains) are analyzed. These six domains are, physical health, psychological health, social relationships, level of independence, environment and spirituality/religion/personal beliefs (World Health Organization, 1997).

A good quality of life can sometimes be difficult to maintain, especially for individuals with developmental disabilities. It is important that individuals with developmental disabilities have a life that is meaningful, with the freedom and opportunities to choose what they wish (D'Amico et al., 2009). In order for this to occur, aspects of their lives should be at the highest possible standards. Key characteristics of quality of life include: "general feelings of well-being, […] opportunities to achieve personal potential" and "feelings of positive social involvement" (D'Amico et al., 2009, p. 259). Possessing the tools necessary for proper social skills is essential to quality of life, especially for the last key characteristic mentioned, "feelings of positive social involvement". However, youths diagnosed with Autism Spectrum Disorder (ASD) are

characterized as having core deficits in social skill development. Given the nature of this disorder, social skill interventions are frequently recommended for youths with ASD, although many youths with ASD exhibit signs of loneliness (Locke, Ishijima, Kasari, & London, 2010) and continue to struggle with social skills. Given the challenges faced by youth with ASD, the purpose of this review is to examine the importance of creating and implementing appropriate social skills interventions for this population.

Autism Spectrum Disorders

Characteristics

ASD was first described fifty years ago by Leo Kanner, who used the terms "early infantile autism" to express what he believed to be the central and defining aspect of the condition; a lack of interest in other people (Volkmar & Klin, 1993). In fact, according to the Oxford Dictionary of English, the term autism derives from the Greek word "autos" which means self, therefore defining a child who has more interest in the self than others (Oxford Dictionary, 2012). In this thesis, ASD is defined by the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition Text Revised* (DSM-IV-TR), because this is the criteria that was used to assess the participants. Using this definition ASD is categorized under the diagnostic category of Pervasive Developmental Disorders, which represents a group of five related diagnoses including Autism, Pervasive Developmental Disorder Not Otherwise Specified (PDD-NOS), Rett's syndrome, Childhood Disintegrative Disorder and Asperger's Disorder (American Psychiatric Association, 2000). It is acknowledged that the new DSM-5 has revised the definition of ASD into one single condition with different levels of severity and two core domains; "1)

deficits in social communication and social interaction and 2) restricted repetitive

behaviors, interests, and activities (RRBs)" (American Psychiatric Association, 2013).

ASD is distinguished as a severe developmental disorder characterized by core

deficits and abnormalities in language and communication, social functioning, and

stereotypical or unusual behaviours and interests (Laugeson, Gantman, Dillon, & Mogil,

2012; Mash & Wolfe, 2010), such as a restricted field of focus. These deficits lead to

more negative peer interactions. Perhaps then, it is not that these youths are more

interested in the self than others, but that they do not possess the necessary social tools to

interact in a positive and beneficial manner with their peers. ASD are neurological

disorders of unknown origin where the symptoms, abilities, and characteristics expressed

by children diagnosed with autism fall under a spectrum (Cotugno, 2009). Thus, there are

a variety of combinations, intensities and degrees of severity of symptoms that these

children express (Mash &Wolfe, 2010). A prevalence study completed in the U.S. by the

Autism and Developmental Disabilities Monitoring (ADDM) Network of the Center for

Disease Control (CDC) found that in 2008 the overall prevalence of ASD was "11.3 per

1,000 (or 1 in 88)" for 8-year-old children. Furthering their study, it was found that

prevalence rates were higher among boys (1 in 54) than girls (1 in 252) (Autism and

Developmental Disabilities Monitoring Network, 2012). The numbers of children

reported with ASD has also increased by 23% since the last study in 2006, and 78% since

their first study in 2002 (cdc.gov). The increasing number of children diagnosed with

ASD, coupled with the many challenges they face provides motive and importance in

continuing research in order to improve their overall quality of life. There is a growing

concern regarding the availability and appropriateness of treatment interventions

available for this population. The greatest concern are the social disabilities that these

children face, as they are one of the least understood aspects of this disorder (Volkmar &

Klin, 1993), and play an important role in their overall quality of life.

Although reasonable success has been achieved in the use of behavioral

interventions and methods to address some of the core features of ASD "relating to

challenging behavioral manifestations like self-stimulation, and expressive and receptive

language" (Laugeson et al., 2012, p. 1025), social reciprocity and communication deficits

remain prominent difficulties in this population. Presently, there is a growing and

systematic move for inclusion of children and adolescents with high-functioning ASD

into regular classrooms. These youths will, therefore, interact more often with their

typically developing peers, making the gap in their social skills more evident. Thus, the

growing population of mainstreamed youth creates a greater need for evidence-based

social skills interventions (Laugeson et al., 2012).

Social Skills in Youth with ASD

Social skills are socially acceptable learned behaviors that allow individuals to

successfully interact with other individuals while avoiding or being able to escape

negative social interactions with others (Elliot, 2007). Some major characteristics of

social skills are: "communication, cooperation, assertion, responsibility, empathy,

engagement and self-control" (Elliot, 2007, p.6). Youth with autism tend to have

impairments in many of these domains, and thus, it seems likely that they have deficits in

social skills. These individuals have difficulty "communicating with others, processing

and integrating information from the environment, establishing and sustaining social

relationships with others, and participating in new environments" (Bellini, Peters,

4

Benner, & Hope, 2007, p. 153). Furthermore, they also have specific social deficits that include difficulties initiating interactions, sharing, theory of mind (or taking another person's perspective), inferring the interests of others, and maintaining a mutual exchange (Bellini et al., 2007). The importance of social skills development has been well researched and linked to higher academic achievement and better overall quality of life (Elliot, 2007). Additionally, having social skills deficits may lead to many developmentally negative outcomes such as, poor academic achievement, peer rejection, anxiety, depression, substance abuse, and other forms of psychopathology (Bellini et al., 2007). Research has shown the importance of early peer interactions on children's development and well-being. Establishing friendships predicts later adjustment outcomes, contributes to experiences in learning how to share, cooperating with others, developing language, exchanging play ideas, and responding to aggression (Banko & Buysse, 2002). When gone untreated, many youths with ASD experience loneliness and mood problems (White & Roberson-Nay, 2009). As adults these individuals then lack the community connections and friendships that are important for a high quality of life. Interventions to improve social functioning prior to adulthood are critical. Therefore, teaching these youths the necessary social skills to make, keep friends and interact properly with peers may have a positive and significant lifelong impact (Laugeson & Frankel, 2010).

Friendships are relationships between two individuals that are both voluntary and mutually regulated. High quality friendships are characterized by qualities such as "concern, caring, sympathy, sensitivity to a friend's needs or wants, identification with the other, and a willingness to give one's self to a friend for his or her own sake (Bukowski & Sippola, 1996). Friends are most likely to choose one another over

commonalities and have been known to become more similar as the relationship matures (Newcomb & Bagwell, 1996). This type of affiliation implies the existence of a reciprocated emotional bond between two children (Ladd & Kochenderfer, 1996). Therefore, some conditions that mark a friendship are, reciprocity, liking and affection and having fun (Bukowski, Newcomb, & Hartup, 1996). Unlike peer groups or peer acceptance, which provides a sense of inclusion, friendships are a "unique source of affection, intimacy, and nurturance" (Klima & Repetti, 2008). Peer acceptance is a unilateral construct (where the focal child has no input in their peer acceptance), and describes the extent to which a child is liked or accepted by other members of a peer group. Conversely, friendship is a dyadic affiliation, where the children respond and perceive each other as exclusive and irreplaceable. Thus, the source and nature of a peer's judgment matters a great deal, making reciprocity a critical component to this brand of relationship (Asher, Parker, & Walker, 1996). The presence of this bond is normally inferred through a number of indicators that suggest these children will: (a) mutually nominate each other as best friends, (b) often interact and seek each other's company, (c) display positive affect during these interactions, and (d) adjust their behaviors to complement their partners and achieve more sophisticated forms of interaction (Ladd & Kochenderfer, 1996). The benefits that surround close friendship relationships are extensive. Sullivan speculated that friendships were irreplaceable as a context for the "development of empathy and perspective-taking skills," as well as, offsetting to some degree the effects of several difficulties in peer acceptance (Asher et al., 1996). It also correlates positively with self-esteem and negatively with anxious and depressive symptoms (Buhrmester, 1990). For these reasons, the quality of friendship for children

with autism is of great importance in helping them develop the appropriate developmental and social skills necessary to have a higher quality of living. Furthermore, in a study by Sebanc, Kearns, Hernandez and Galvin (2007), it was described that young children define friends as peers "with whom they play, whereas older children [will] also define friends in terms of emotional reciprocities, such as trust and loyalty" (p. 82). When asked as to the reasons for a friendship, preschool children are more likely to report, "because they play together," while older children focus on more specific personality characteristics of their friends (Sebanc, Kearns, Hernandez, & Galvin, 2007). Among typically developing children best friendships become stable at around the fourth grade and promote the development of social competence (Laugeson & Frankel, 2010). As children enter adolescence and even adulthood there is a greater need for understanding of the social cues that accompany developmental maturity. Perhaps this is due to a rise in the complexity of social communication (Laugeson et al., 2012), or that social rules become more abstract in adolescence, what is certain is that these deficits may lead to "significant impairments in daily living and interpersonal relationships" (Laugeson et al., 2012, p. 1026). Therefore, as children get older, social skills and an inability to bond through personality characteristics, play an increasingly important role in friendship formation. It is this inability that leads youth with higher functioning ASD to have trouble procuring quality friendships, as they get older.

Although friendship is shown to be important to development, studies have demonstrated that young children with disabilities are at risk for experiencing difficulties in getting along with peers and making friends. Traditionally, because of their social impairments, children with ASD were assumed to lack a desire to foster meaningful

relationships with others. However, recent research has debunked these claims and has discovered that individuals with autism do report having at least one friend (Locke et al., 2010). Unfortunately, many children and pre-adolescents with ASD report higher levels of loneliness and less fulfillment in their friendships when compared to their typically developing (TD) peers (Bauminger & Kasari, 2000). Consequently, they will more often report a desire for increased peer interactions (White & Roberson-Nay, 2009). Loneliness is defined as "an undesirable feeling associated with negative affect" (Locke, Ishijima, Kasari & London, 2010). There are many possibilities for feelings of loneliness, one of which may be the result of an "unfulfilled desire to have friends and an understanding of the gap between one's actual and desired social status" as well as "a lack of affective bonding" (Locke et al., 2010).

Children on the autism spectrum have shown enormous difficulties in this domain, as significant social deficits are a defining characteristic of the disorder (Banko & Buysse, 2002). Due to their initial impairments, children with ASD have an increased risk for experiencing difficulties getting along with peers, as well as, displaying often anxious symptoms. This difficulty results in "avoidance of social contacts, overarousal in social situations, [and] an inability to understand and follow expected social rules" (Cotugno, 2009, p. 1268). Additionally, because of their difficulties in understanding the subtleties of social interactions, efforts by children with ASD to seek out others are often unsuccessful and make them easy targets for ridicule, furthering their feelings of loneliness (White & Roberson-Nay, 2009).

When asked what qualities define a friend, youths with high-functioning autism, like their typically developing peers, used qualities about personality such as

"trustworthiness, patience, helpfulness and kindness" as well as phrases like "someone you can relate to" or "someone you can talk to" (Locke et al., 2010). Conversely, when asked to list qualities that they liked about themselves, responses pertained to talents and abilities, not personality traits. In addition, when asked to list traits they disliked about themselves, these same youth with ASD reported qualities such as "their impatience, inflexibility, intolerance and temper." These reported lists demonstrate that youths on the spectrum, particularly those with higher-level functioning, are able to state and define friendship in terms of intimacy and quality; however, there is a lack of connection between their understanding of the definition of friendship and what they judge about themselves (Locke et al., 2010). Perhaps then, the lack of connection between what they want, and what they are experiencing in their social networks, may be a result of their inability to reciprocate what they believe (and have shown to understand) to be necessary in a healthy relationship (Locke et al., 2010).

Literature Review

The study for this thesis was mostly concerned with areas of social difficulty presented by youths with ASD and social skills deficits. Research has shown that social skills difficulties remain an area of distress even for the most cognitively able individuals on the autism spectrum (Reichow & Volkmar, 2010). Additionally, researchers argue that individuals with ASD do not generally outgrow their social skills deficits; rather these difficulties persist into their adult life and ultimately continue to negatively impact the individual's social functioning (DeRosier, Swick, Davis, McMillen, & Matthews, 2011). Although the importance of social skills and high quality friendships for youths with

ASD is well documented, and has become considered a treatment priority for youth on the spectrum; most interventions have focused their attention on younger children with lower ranges of social functioning (Wolfberg & Schuler, 1993). Few social skills interventions have been invested in looking at the efficacy of social skills training for youths who are less socially impaired, such as those with High-Functioning Autism or Asperger disorder (Laugeson & Frankel, 2010). There are very few evidence-based studies specifically aimed at improving the friendships of these youths. Even among the interventions that have investigated this population, studies have not tested or assessed if youth generalize the social skills to situations outside of treatment settings (i.e., through parent or teacher reports), nor have they examined the maintenance of these gains. Thus, revealing a gap in the literature. For these reasons, this study aimed to address the areas of social difficulty presented by a group of adolescent children with ASD and social skills deficits.

Educating youths with ASD on appropriate friendship skills and improving the quality of friendships they experience may promote positive social skills "which in turn will likely impact current and long-term adjustments" (Laugeson et al., 2012, p. 1026). Research indicates that effective intervention strategies currently used for teaching social skills to youths with ASD include: "behavioral modeling, coaching, behavioral rehearsal, and performance feedback conducted in small group settings" (Laugeson et al., 2012, p. 1027). However, there is a key feature that is lacking in most of these social skills interventions; the structured involvement of parents in the intervention.

Parents Involvement in Youth with ASD

Having a child on the spectrum often intensifies the challenges of parenthood. Parents frequently feel isolated in having to face these challenges. The specific symptoms

of autism coupled with the lack of coordinated care for youths on the spectrum can lead to social isolation, psychological issues, negative health outcomes, and marital dissatisfaction (Mandell & Salzer, 2007). It is thus crucial, that interventions have a parent component in order to provide social, and emotional support, as well as, sources of information. In fact, it is the parent components, or parent groups that have been identified as one of the most noteworthy developments in resources that effectively support families of youth with ASD (Mandell & Salzer, 2007).

Parents have a significant impact on the success of their children either through direct instruction or supervision. Involved parents help to maintain learned skills (Laugeson et al., 2012), as well as, provide support in the development and generalization of these social skills. Parents can, therefore, continue to teach their children the skills learned in an intervention in the home environment, which not only improves parent-child interactions but increases the amount of intervention time these children receive (Burrell & Borrego, 2012). Involving parents in treatment has shown to increase the probability of a positive outcome as well as benefit the parents. Research suggests that those parents who are given the opportunity to take part in treatment have increased positive affect, reduced stress and improved self-efficacy (Burrell & Borrego, 2012). In a study by Ingersoll and Dvortcsak (2006), it was discovered that included parents reported overall satisfaction with the program (as cited in Burrell & Borrego, 2012). Furthermore, in 2007 the Research Units on Pediatric Psychopharmacology (RUPP) discovered in their study that involved parents attended "93% of mandatory sessions and reported moderate to high levels of satisfaction with the parent training program" (Burrell & Borrego, 2012, p. 426). Studies have shown that parents of youth with developmental disabilities are

highly satisfied with the "sense of agency and belonging" they attain by participating in these groups (Mandell & Salzer, 2007, p. 112). Following their experiences in these groups, parents often have reported a reduction of previous feelings of loneliness, isolation, and stigma. In addition, they have reported that as a result of participation, their parenting skills improve, they obtain important information about services and feel a greater sense of emotional support (Mandell & Salzer, 2007). In essence, parents of youth with ASD are highly satisfied with the sense of belonging and agency they achieve from participating in the parent groups available to them. After participating in these groups, parents feel confident and empowered in handling issues regarding their children (Lo, 2010). Through the many advantages for both youth and parents in treatment, it is clear that including parents in the intervention is a critical component to a successful outcome.

With the understanding that social skills are important in childhood development there is currently a high volume of literature on social skills interventions for youth with ASD. However, many have only acquired moderate success and generalizability. Several interventions are not malleable towards the individual's needs, in terms of their own social skills development, but are so fixed that youth have to try and fit into the intervention. In the following section, some of the currently commonly used methods of social skills interventions will be briefly explored.

Video Modeling as an Intervention Method for Youth with ASD

As previously mentioned, children with ASD often exhibit a restricted field of focus and are able to sustain attention for an extended period of time in that particular field. Understanding that the strengths of children on the spectrum lie within visual learning, has led researchers to many visually stimulating interventions plans, such as

video modeling. Video modeling is rooted in Bandura's Social Learning Theory, stating that human behavior is primarily learned by observing and modeling others, and this modeled behavior could be presented in vivo or recorded (Corbett & Abdulla, 2005). In vivo modeling consists of the therapist demonstrating the behavior to the child, and having them imitate or "model" the appropriate behavior. Recorded modeling has the target behavior on video, allowing the therapist more control over the environment, while also playing to the child with ASD's strength (i.e. visual learning). Video modeling has, therefore, been defined as "the occurrence of a behavior by an observer that is similar to the behavior shown by a model on a videotape" (Nikopoulos & Keenan, 2004, p. 93).

Many have chosen video modeling as a preferred intervention method because it allows for a structured setting. It also allows for those "live" people working with the children to focus their attentions on prompting, as opposed to being both model and prompter, permitting greater control over the modeling procedure. There is also a repetition of the same models in video modeling and lastly, it is possible to reuse videotapes for individuals (Corbett & Abdulla, 2005; Kroeger, Schultz, & Newsom, 2007). The children do get to practice through repetition, but providing the child with a well-practiced script for social interactions will not benefit them in all possible situations, therefore diminishing their ability to generalize what they have learned. Having a preference for video modeling because it is "easier" on the live person implementing the intervention (i.e., that they don't have to focus on both being model and prompter), is not putting the focus on the child. Lastly, reusing videotapes for individuals does not provide the children with the vast amount of scenarios they will encounter in their daily life. Although many studies using video modeling as an intervention show that children with

ASD improve on prosocial behavior, maintenance is not necessarily achieved. During the interventions the children are regulated on a picture schedule, helping them transition by providing signals of when to stop and start activities (Kroeger et al., 2007), essentially disabling any uncertainties. However, when these children are taken out of the "lab setting," where everything is controlled, they will not have learned the necessary tools to deal with the vast amount of changes that occur in social situations without warning. This will then disable any social skills they may have learned through the repetition of video modeling.

Social Stories as an Intervention Method for Youth with ASD

Carol Gray, an educational consultant, aiming to help individuals with social difficulties, first introduced social stories in 1993. Social stories are short stories written with the goal of "objectively sharing important social information with individuals with ASD" (Kokina & Kern, 2010, p. 812). The norms for the behavior in a targeted context, the perspectives of others, and the steps for implementing the social skills are displayed in this short story. The short story also provides youth with ASD with information regarding what the other person is doing, feeling, or thinking in a given situation, and identifies significant social cues and their meanings in a sequence of social events (Caballero & Connell, 2010).

According to Gray, there are a set of criteria that should be met in a social story. These criteria are (a) sentences that are descriptive (i.e. factual statements used to describe the people involved and situation), (b) sentences that show perspectives (i.e. display the reactions, feelings and responses of the characters), (c) sentences that are directive (i.e. they identify an appropriate response), (d) sentences that illustrate

cooperation (i.e. they identify what others will do to assist in the situation), (e) sentences that are affirmative (i.e. they express the values of a given culture in order to enhance the meaning) and (f) sentences that show control (i.e. where the child writes their own sentences to show understanding and personal strategies they will use to recall the information and use it) (Kokina & Kern, 2010). However, it was discovered that 39% of social stories reported in research deviate from these guidelines, specifically the last guideline where the child is asked to show understanding and retrieval strategies (Caballero & Connell, 2010).

When implemented properly, social stories have been shown to increase social skills through social scripts, and may be used as a more personalized program than many video modeling interventions. Additionally, social stories are easily implemented in the classroom environment allowing for less stigmatization for children with ASD. Most children do show some forms of generalization with the use of social scripts however, their generalization is only for the specific social scripts learned. For example, in a study by Coballero and Connell (2010), one of the children (from a sample of three) exhibited an increase in his target behavior of initiating social contact, however many of those initiations were not appropriate. The child displayed "rote comments or continuous repetition" of the scripts he had learned with his peers (p. 37).

In addition, social stories show only improvements in social skills, therefore they do not initially teach the skills, but help the child who already has them in their repertoire to understand the situations when to use the skills. Taking into account the lack of "un-memorized" generalization, and the inability to initially teach the social skills, this form of intervention seems better suited to "target behavior reduction" than the teaching of

social skills (Kokina & Kern, 2010, p. 822). Social situations and behaviors are more abstract and complex than can be depicted in a simple social story, and specifically for children on the spectrum, the uneasiness that they may encounter during these social situations are not easily expressed or taught through a social story format.

Cognitive-Behavioural Interventions for Youth with ASD

Cognitive-behavioural interventions (CBI) are a form of psychotherapy based on both cognitive and behavioral models. Cognition, comprises all mental activities that involve the acquiring and processing of information, including "attention, perception, learning, memory, thinking, problem solving, decision making and language" (Colman 2009). Therefore, the aim of cognitive therapy is to modify an individual's beliefs and styles of thinking based on the assumption that psychological problems stem from distorted perceptions of reality (Colman, 2009). Behavior therapy is aimed at altering maladaptive or unwanted behavior patterns by applying principles of learning and operant conditioning. The assumption is that appropriate treatment of learning disorders involves the unlearning of maladaptive behavior patterns and the learning of new adaptive behavior patterns (Colman, 2009). Combining both cognitive and behavioral aspects of learning and treatment enables the interventions to not only educate children with ASD on a variety of social skills, but also teach them how to combat the negative cognitive emotions that they encounter when faced in social situations. This model allows for a wider variation in delivery and can therefore be formatted to the individual child's needs (i.e. do they need to acquire the social skill or practice the social skill, will they learn better with individual therapy or in a group-based approach).

Often CBI methods incorporate parent components to accompany the child component of the intervention model (Cotugno, 2009; White et al., 2010). This function allows the family to be involved and learn what skills are necessary for the child to practice outside of the therapy environment. Thus, this results in a greater amount of generalizability and maintenance of the skills. Additionally, involving parents often reduces family stress, and improves parental self-efficacy (Burrell & Borrego, 2012). Children with ASD undergoing CBI often learn problem-solving steps that help them accomplish their social goals. For example, one CBI program, Multimodal Anxiety and Social Skills Intervention (MASSI), educates children on the components of PRIDE when solving problems. The child needs to first identify the Problem, then Recognize their reactions, Identify their thoughts, Develop a strategy to solve the problem, and lastly, Evaluate how they did and reward themselves. Through this intervention method, children on the spectrum learn not only different social skills but also how to handle the anxiety they may feel in social situations. In a study by Beaumont and Sofronoff (2008), children with high-functioning ASD, ages seven to 11, demonstrated that after CBI, there was improved social skills, as well as improved knowledge of the negative cognitions or thoughts that were impeding social interactions (as cited in White et al., 2010).

Present Study

Problem Statement

In light of the review provided, it is clear that effective interventions are required to meet the needs of youths with ASD and their families. It is important to address the social skills deficits of this population, at this stage in their development in order to diminish subsequent difficulties. Moreover, addressing these needs is beneficial for parents, who often experience an increase in stress levels when dealing with their child's

individual needs. Autism and social skills deficits deeply affect the family, and therefore parents require strong coping skills.

The intervention chosen, the UCLA program for the Education and Enrichment of Relational Skills (PEERS), is a parent-assisted Cognitive-Behavioral Intervention program for youth on the autism spectrum, which has shown success in teaching, as well as, practicing social skills in order to acquire high-quality friendships. The present study will examine the efficacy and durability of the PEERS program, a parent-assisted social skills group intervention for youths with ASD. The efficacy of this intervention method was examined through a pre- and post-test study design with a 7 week follow-up test, to examine maintenance. Many typically developing youths often learn basic rules and etiquette through observation of peer behaviour and instruction from parents and teachers, however for some youths further instruction may be needed. For youth with developmental delays, in particular those with ASD, learning to make and keep friends may be especially difficult. The natural development and transference of social etiquette requires mostly positive and sustained interactions with peers, yet most youths with ASD experience frequent isolation, which may make these deficits more pronounced (Laugeson & Frankel, 2010).

PEERS Program

The PEERS program is a parent-assisted intervention that focuses on youths in middle school and high school (youth between ages 12 and 17 years old), who struggle with making or keeping friends. This program is an extension of the Children's Friendship Training program (Frankel & Myatt, 2003), which has been shown to be an effective parent-assisted intervention model for improving friendship skills for high-functioning elementary-aged children with ASD. The intervention includes separate

sessions for parents and youths that meet weekly for 90 minutes over a 14-week period

(Laugeson & Frankel, 2010). However, in the current study the length and intensity of the

program was modified with the developer's approval, Dr. Laugeson, to having

participants meet twice a week over a 7-week period. This was done to decrease

possibilities of attrition rates and increase intensity of learning. The group focused on

social skills such as, "having conversations; entering and exiting conversations; using

electronic forms of communication; choosing appropriate friends; handling teasing,

bullying, and other forms of social rejections; handling arguments and disagreements

with friends; and having appropriate get-togethers with friends, including how to be a

good host and a good sport" (Laugeson & Frankel, 2010, p. 3). In 2009, the first

randomized controlled trial of the PEERS program was published, comparing 17 youths

with ASD receiving the intervention method matched with a delayed control group of 16

youths with ASD, 13 to 17 years old. Results revealed that in comparison to the control

group, the treatment group significantly improved their "knowledge of social skills,

increased frequency of hosted get-togethers, and improved overall social skills as

reported by parents" and youths (Laugeson & Frankel, 2010, p. 12). In a later study, 28

youths (14 in treatment group, 14 in control-delayed treatment group) were assessed after

undergoing the PEERS program. Results indicated, again, improvements in all domains

tested. Further, results from parents suggested that youths significantly decreased ASD

symptoms relating to social responsiveness by the end of the treatment. Follow-up

assessments (14 weeks after intervention) showed that most treatment gains were

maintained, and some additional treatment gains were observed in relation to decreased

problem behaviours (Laugeson et al., 2012). In contrast to Frankel and Simmons' (1992)

report that as many as 43% to 58% of participants drop-out during most outpatient treatments; both studies attrition rates were low with only 6 drop-outs (14.6%) in the first study and 4 drop-outs (12.5%) in the second study. The combined results and low attrition rates found in these studies suggest that the PEERS program as a parent-assisted social skills intervention leads to improvements in friendship skills for youths with ASD (Laugeson & Frankel, 2010).

Recent studies have shown that participating in the PEERS program "decreased social anxiety, core autistic symptoms and problematic behaviors" (Schohl et al., 2014, p. 543). Additionally, in a study by Hecke et al. (2013), a randomized controlled trial of adolescents with ASD who had participated in the PEERS program were examined using EEG asymmetry to see if the program affected neural functioning. Results indicated that adolescents with ASD who completed the PEERS program showed a shift from right-hemisphere dominant EEG activity before PEERS to a left-hemisphere dominant pattern of EEG activity after PEERS was completed. Additionally, these left-dominant asymmetry patterns were not significantly different from a typically developing group of adolescents (Van Hecke et al., 2013). Left-hemisphere EEG asymmetry was associated with more "social contacts and knowledge, and fewer symptoms of autism" (Van Hecke et al., 2013, p. 1). Finally, in a study by Yoo et al. (2014), the efficacy of a Korean version of PEERS for enhancing social skills was examined. Results indicated improvements in social skills as rated by parents and adolescents. Furthermore, direct observation (Autism Diagnostic Observation Scale (ADOS)) and formal assessments (Korean version of the Vineland Adaptive Behavior Scale (EHWA-VABS)) also revealed significant improvements after treatment (Yoo et al., 2014).

The results of the PEERS program have generally been positive however, this program is still young and continued evaluation for efficacy needs to be conducted. In the present study, the effectiveness of this program on a Canadian population was evaluated adding a new dimension to the current research. Furthermore, changing the length and intensity of the program allowed for a better understanding of how the PEERS program may be adapted to the needs of different populations.

The research questions for this study were as follows:

1. What effects does participating in the PEERS program have on the performance of social skills of youths with ASD as perceived by parents and by the participating youths?

2. What effects does participating in the PEERS program have on the quality of play (QPQ) as perceived by parents and participating youths?

3. Does the QPQ demonstrate that youths have sufficiently learned the concepts taught in the intervention; applying them to real situations and friends outside of the program?

4. Do parents and youth reports on behaviour and get-togethers highly correlate with each other?

5. Do the changes made to the implementation of the PEERS program (i.e. changing duration to 7-weeks and intensity to twice a week) affect the results compared to previous findings?

The previous research on the PEERS program (Laugeson & Frankel, 2010; Laugeson et al., 2012; Schohl et al., 2014; Van Hecke et al., 2013; Yoo et al., 2014) allowed me to make the following predictions for this study.

It is expected that, in congruence with past research, results will indicate an improvement in social skills, and hosted get-togethers. Further, it is expected that the

changes in duration and intensity will not have negative effects on improvements and may show even lower rates of attrition than previous studies, and perhaps more significant improvements at post-test. Less time between sessions allows for less time to forget what was learned in a previous sessions and faster acquisition rates. Lastly, it is anticipated that follow-up tests (7 weeks after intervention) will reveal, in congruence with previous research, maintenance of most program gains, or an increase in gains. Perhaps because the program length has been shortened, gains will be most evident at the 7-week follow-up. Additionally, it is expected that at the 7-week follow-up problem behaviours, as described in the SSIS-RS will decline, due to a decrease in frustration that was previously encountered when these youths tried maintaining friendships.

Methods

Participants

Inclusion criteria for adolescent participants included: (a) between 12 and 17 years of age, (b) experiencing social difficulties as recognized by parents, (c) previously diagnosed with ASD by a reliable mental health professional or strongly suspected to have ASD symptoms at the time of referral by a trained professional, (d) verbally fluent with and within the ordinary bounds of cognitive development with below-average to average intelligence (IQ>70), (e) substantially motivated to participate in treatment, (f) no history of major mental illness (e.g., schizophrenia, bipolar disorder, or other types of psychotic disorders, and (g) no current problems with aggressive behaviors.

The participants in the intervention were eleven (N=11), 13-17-year-old adolescents (M = 14.59-years-old) diagnosed with ASD (i.e., Asperger's syndrome or High-Functioning Autism and Pervasive Developmental Disorder Not Otherwise

Specified) as having social skills deficits (as reported by parents). Six participants presented with a comorbid disorder ranging from Anxiety, ADHD, Tourette's and Learning disabilities. Additionally, the mean Autism score on the parent form of the SSIS-RS at pre-test for participants was 17.1 (refer to Figure 1 for individual scores). According to the SSIS-RS manual, scores 14 and above are considered above average on the autism spectrum. Historically boys are more likely to present for social skills treatment (Laugeson & Frankel, 2010), and ASD is 5 times more common among boys than girls (Autism and Developmental Disabilities Monitoring Network, 2012). Therefore, as expected the group consisted of more boys than girls. Specifically, the group comprised of one female participant and ten male participants. Most of the participants (64%) were taking medication (either directed for Anxiety or ADHD) before the program began and continued to follow their prescribed doses during and after the program. Family make-up consisted of mostly biological two-parent households (73%), with two divorced biological parent households and one adoptive two-parent household (Figure 1). All participants continued to attend either their regular school programs or adapted programs in a variety of schools in the Greater Montreal Area.

Participant	Age	Gender	Diagnosis (as reported by parents)	SSIS-RS Autism Score	Family Make-up	Medication
1	13	Male	PDD-NOS/ Tourette's	24	Adoptive Parents	Strattera (40mg)
2	13	Male	Social Skills Deficits/ ADHD-Combined	17	Bio Parents	Zoloft Bifantin
3	13	Male	ASD	15	Bio Parents	None
4	16	Male	ASD	20	Bio Parents/Divorced	Vivance
5	13	Male	PDD-NOS	13	Bio Parents	Biphentin (20mg)
6	15	Male	PDD-NOS/ADHD	16	Bio Parents	Concerta (54mg)
7	15	Male	ASD	19	Bio Parents	None
8	13	Male	ASD/ADHD	25	Bio Parents	Ritalin (15mg am/10mg pm)
9	14	Female	PDD-NOS/ADHD/Anxiety	13	Bio Parents	Strattera/Zoloft
10	17	Male	Social Skills Deficits/Minor Learning Disability	12	Bio Parents/Divorced	None
11	13	Male	Asperger's Syndrome	14	Bio Parents	None

Figure 1. Participant Demographic Information

The parent group was mandatory, and as such, there was always a minimum of eleven parent participants (*N*=11) present during each session.

All the above information was confirmed during a pre-phone screening and at the intake interview. Furthermore, during these interviews it was made clear the participation requirements from both parents and youths. Additionally, it was made clear that the youth's decision to participate was entirely their choice and that they had to be motivated to increase their social skills. Raising awareness of the involvement of the parents, as well as, ensuring motivation in the participant has been shown to decrease rates of attrition, increase the group's cohesion (Laugeson & Frankel, 2010), and minimize the amounts of absences throughout the program. No inducements to participate were given, however youths were provided with a "graduation party" at the end of the program where

graduation certificates and movie passes were handed out for their achievements and hard work throughout the program.

Setting

This program took place in areas assigned to the Centre for the Arts in Human Development (CAHD). According to the university website, CAHD is a clinical, educational and research centre that serves individuals with developmental disabilities and other special needs populations (Centre for the Arts in Human Development, 2014cahd.concordia.ca). The centre's mandate is to facilitate student education and training, foster research, provide a setting for therapeutic programs in the creative arts therapies, and to educate the public, by creating awareness of the abilities of individuals with various special needs (Centre for the Arts in Human Development, 2014).

The sessions were held in two rooms designated to the CAHD in the Hingston Building on the Loyola Campus of Concordia University. The area selected for the youth group was a large rectangular carpeted room containing eleven chairs, as well as, enough empty space in the back of the room for the youths to partake in the behavioral rehearsal activities and games after the didactic lesson. The room contained a white board at the front of the room for the youths to pick up on various keywords throughout the lesson, and a table to the side containing both beverages and snacks that were available throughout the session (See Figure 2). The parents met in a separate area adjacent to the youth group room. This was a well-lit rectangular room with chairs placed in a circle, in order to engage discussions and participation around the designated lesson plan. Additionally, the parents were also provided with an assortment of refreshments and snacks during the sessions (See Figure 3).

Figure 2. Youth Room   *Figure 3.* Parent Room

Research Team

The research team consisted of two graduate students who cooperated and worked together to carry out the social skills program. In particular, a research assistant with extensive experience working with parents of children with special needs led each parent group session and followed the PEERS manual for each lesson. Over the course of the program, I was responsible for providing parents with the "Parent Handouts" for each session, organizing both parent and youth groups and facilitating the youth group sessions. I followed the PEERS manual for each lesson plan and consulted with both my team member and other specialists in those instances that I required assistance addressing particular issues during group meetings.

Measures

This research project was approved by the Concordia University Office of Research (see Appendix A for a Copy of Ethics Certificate). Following this approval, recruitment began through purposive sampling methods, using flyers, notices, chain-referrals and an advertisement taken in Montreal Families Magazine (See Appendix B for a copy of the magazine advertisement and flyer). Only those families who indicated an interest, met the criteria for the group program and were available to meet twice a week over a 7-week period were included in the program. These families proceeded to complete an application form to partake in the intervention (see Appendix C for Application Form for PEERS Program).

The youths and parents were given separate consent forms prior to participating in the program (See Appendix D for Student Oral Consent Form Ages 12-14 and 15-17 years old; and Appendix E for Parent Consent Form). Specifically, the youths were taken into another room and were read the youth assent form describing to the youth the purpose of the PEERS program, what it entailed, and asking whether they wanted to participate in the program. Youths were then asked to provide oral consent if they agreed to participate in the program, while being assured that their participation was voluntary and if at any point they wanted to discontinue participation there would be no penalties. Parents were informed of the purpose and goals of the PEERS program and asked to give written consent on behalf of their children given that they were minors under the age of 18-years-old.

Primary outcome measures included self-report and parent-rated questionnaires quantifying social ability and problem behaviors directly related to social skills.

Secondary outcome measures included two post-participation questionnaires completed by parents at intervention end (time 2) and follow-up (time 3) to gain insight into their views of participating in the group over the course of the project (See Appendix F for post-participation questionnaire and Appendix G for follow-up participation questionnaire).

Social Skills Improvement System-Rating Scales (SSIS-RS). During both pre-test, post-test and follow-up the *Social Skills Improvement System- Rating Scales* (SSIS-RS) was administered. The SISS-RS is a revision of the Social Skills Rating Systems (SSRS-R; Gresham & Elliot, 1990) designed to assist in the screening and classification of students who have significant social skills deficits. The SSIS-RS utilizes multiple versions, consists of 76 items and takes approximately 15 minutes to complete (Crosby, 2011).

The parents completed the parent version of the questionnaire at three intervals: (1) before the group began (at intake interview), (2) during the last program session, and (3) at the 7-week follow-up. For the target participants there are scales available for three age groups, one of these groups was used in the following study, the scale for older children (ages 13-18). The SSIS-RS was completed by the youths also before the group began (at intake interview), during the last program session and at the 7-week follow-up. Items on the parent questionnaire provide frequency-based ratings from "never" to "almost always," and are written at a fifth-grade level to ensure readability. The student questionnaire uses a 4-point scale from "not true" to "very true," and is written at a second-grade level to ensure understanding and readability (Crosby, 2011) (See

Appendix H for an example of the SSIS-P and Appendix I for an example of the SSIS-A).

There are two scales on this questionnaire, Social Skills and Problem Behaviours, which were derived from factor analysis. The Social Skills scale includes subscales of "communication, cooperation, assertion, responsibility, empathy, engagement, and self-control." The Problem Behaviour scale includes subscales of "externalizing, internalizing, hyperactivity/inattention, autism spectrum, and bullying" and is designed to assess behaviours that interfere with the "acquisition or performance of socially appropriate behaviours" (Crosby, 2011, p. 292). Higher scores on the social skills scale indicate better social functioning and lower scores on the Problem Behaviour Scale indicate better behavioural functioning.

Differential item functioning (DIF) analyses was used to conduct bias analyses on the items in demographic areas such as, gender, race (Caucasian vs. African American), and ethnicity (Caucasian vs. Hispanic). The results of the DIF analyses revealed very little significant differences, not consistent across the different versions (i.e. parents to student versions). Reliability coefficient alphas were above .77 for parents and averaged .80 for the student version. Test-retest reliability was above .73 for parents and for the student version subscale coefficients ranged from .59 to .81 (median=.71), and the overall scale test-retest coefficients were somewhat higher (Social Skills =.81, Problem Behaviors=.77) (Crosby, 2011). Content validity was established using guidelines and key terms/items for the Social Skills scales. Additionally, the DSM-IV-TR, and individual expertise were both used to develop the various subscales of the Problem Behaviours scale. Items in each scale were only included in the standardized form if they

met specifications and were then subjected to a range of statistical analyses including, "factor analysis, DIF, and item-total correlations" (Crosby, 2011, p. 294). This test was used in the following intervention study due to its validity and reliability in analyzing what aspects of social skills need to be improved in each individual youth, as well as, how the participant has improved and maintained the skills learned in these domains after intervention and at follow-up.

The Quality of Play Questionnaire (QPQ). There are two versions of the *Quality of Play Questionnaire* (QPQ), one administered to parents (QPQ-P), and one that was administered to youth (QPQ-A). Both questionnaires consist of 12-items that assess the frequency of get-togethers with peers over the previous month and the level of conflict during these get-togethers. Ten of the 12 items make up the conflict scale and ask the individual to rate the peer conflict (either observed or encountered). These ten items are rated as either "Not At All," "Just a Little True," "Pretty Much True," or "Very Much True" (Laugeson et al., 20120, p. 1028). The other two items ask the individual to estimate the number of invited and hosted get-togethers that the participant has had in the previous month. In all, these 12 items take approximately two to three minutes to finish, and were completed during the pre-test, post-test, and at follow-up, individually by the parent and the youth. The QPQ was created through a factor analysis of 175 boys and girls, and has a coefficient alpha of .87 for the conflict scale. A spearman correlation of .55 for the conflict scale, and .99 for the frequency of hosted or invited get-togethers, between parent and youth ratings at baseline was observed for a randomized controlled trial of PEERS (all p's<.001) (Laugeson & Frankel, 2010). A sample of the adolescent (QPQ-A), and parent (QPQ-P) versions of the QPQ are presented in Appendix J and K.

Both parent and adolescent versions of the QPQ were utilized in this intervention study

because it is a measure that compliments the SSIS-RS, in showing not only if the youths

have increased their social skills but that they have implemented these skills in daily life

and have actually made friends, or are in the process of making friends (i.e., through

indication of number of get-togethers and the conflict resolution at these get-togethers).

Consequently, it is also a measure of whether youths have generalized the skills learned.

It is important to have both parents and youths fill out these questionnaires (SSIS-RS,

QPQ) in order to get a better and more complete understanding of how the participant has

changed throughout the program. For example, the QPQ had only a moderate correlation

(0.55) for the conflict scale; this indicates that perhaps there is incongruence in what

parents and youths are indicating for the amount of conflict during get-togethers. Having

both parents and youth perspectives therefore allowed for a better, and more overall

understanding of what is happening in the household during these get-togethers.

Design

This study took place in four phases, as outlined in Figure 4.

Pretest (Time 1)	PEERS Program	Post-test (Time 2)	Follow-up test (Time 3)
•Intake Interview •SSIS, QPQ	•7wks (2X/wk)	•SSIS, QPQ, post-questionnaire •Graduation party	•7wks later •SSIS, QPQ, Follow-up questionnaire
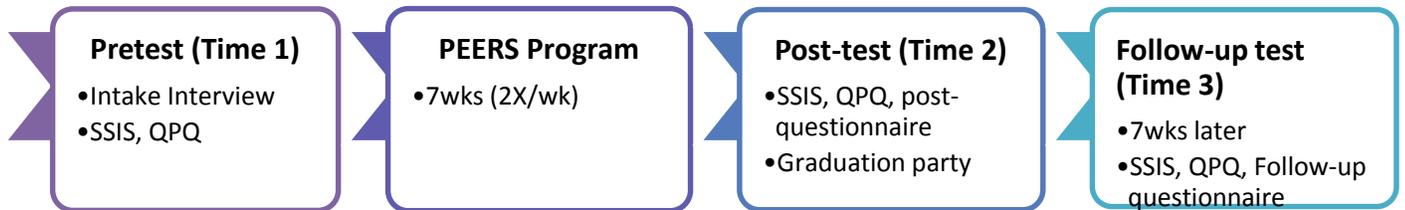
Figure 4. Study Design

The study was a quasi-experimental design. It is not truly an experimental design because the students were not randomly assigned to groups but were instead in the group based on purposive methods of sampling. Each participant met certain criteria before being accepted into the PEERS program (i.e., ASD diagnosis or significant social skills deficits, IQ>70). The study took place over 7 weeks between pre-test and post-test. The intake interviews took approximately 45 minutes to an hour to complete with each youth and parent participant (at least one parent needed to be present). During this time I was with the youth, ensuring voluntary participation, giving information on the PEERS program and being available for questions while they filled out the SSIS-RS and QPQ-A questionnaire. While the research assistant was with the parent, also giving information on the program, receiving parental consent, ensuring that they understood their part in the program and being available to answer any questions while they filled out the parent version of the SSIS-RS and QPQ-P.

The next phase of the study was the commencement of the 7-week PEERS program. Thirteen of the sessions focused on different social skills the participant would need in a variety of social situations, for example, communication, choosing appropriate friends, handling bullying and teasing and having appropriate get-togethers. As permission was received at the beginning of the program, the fourteenth session concluded PEERS with the completion of all post-tests (SSIS-RS, QPQ, post-questionnaire) by both parents and youth and then coming together for a "graduation party" to celebrate the accomplishments of the group.

Youth sessions. Each session was 90 minutes long and followed a didactic lesson plan, utilizing the Socratic Method, as well as, Role Play methods of teaching. There was also an activity planned for each session to allow the participants the opportunity for behavioural rehearsal of the skills they had learned during the lesson. At the end of the session the participants were given homework based on key skills they had learned during that particular lesson in order to again have them practice these skills. The homework was then reviewed at the next session to allow for questions or concerns to be addressed (See Appendix M for an overview of the lesson plan).

Parent sessions. At the same time that the youths met in their groups for their lessons, parent sessions (where one parent needed to be present) took place. During the parent sessions, the group leader was in charge of explaining the guiding principles of that week and what skills the youths were learning in their lesson. This was done to allow youths to generalize these skills in daily life with their parent's help. The previous lesson's homework was then reviewed, and any major concerns or encountered problems were discussed. There were "parent handouts" which gave an overview of the lesson plan

for that session and of the homework assignment, with a detailed description of the parents' part in the homework assignment. The parent group leader followed the provided PEERS manual, in order to avoid any confounding variables. This manual consists of a script of the lesson plan and potential problems that could be encountered with appropriate solutions.

The last 15 minutes of the session was spent in reunification where both parents and youths came together in the youth room. At this time, I facilitated the youth group with reviewing what they learned during the lesson, and formally announced the homework assignment for the next session. This was done to ensure that both parents and youths had time to negotiate responsibilities for the homework assignments. For an outlined overview of each session refer to Appendix M.

In the third phase of the study the parents were given a post-participation questionnaire (ten questions in length) on the sixth week of intervention to gain insight into their views of participating in the group over the course of the project (Appendix F). This questionnaire was filled out at their own convenience and returned on the 14th session. During the last session, the previous lesson's homework was reviewed, the parents and youth filled out the post-test questionnaires (SSIS-RS, QPQ) separately, and then reunited for a "graduation party" (Appendix H, I, J & K). Each youth participant was individually presented with a graduation diploma (Appendix L) and movie gift certificate to celebrate their hard work and accomplishments.

The last phase of the study took place seven weeks after the program was completed. Both parents and youth came in and separately filled out the follow-up tests

34

(QPQ and SSIS) (Appendix H, I, J & K). Additionally a second post-participation questionnaire (five questions in length) was administered to the parents to gain insight into their experiences post-intervention (Appendix G). I was available during this time to answer any questions and review questionnaires instructions with the participants.

Procedure

      Pre-test, post-test and follow-up. The pre-test was given at intake interview to both the parent and youths, in different quiet rooms. There was a trained research assistant available for the parents and I was available for the youths to read instructions to the questionnaires, answer any preliminary questions and make sure participation was voluntary (i.e., both consent and assent was given). The post-test was completed on the last week of treatment. When parents and youths had separated into their groups, they filled out post-test questionnaires in a quiet room. The parent group leader was present with the parents to again read instructions, and answer questions. The youth group leader along with three research assistants was available to do the same for the youths. The follow-up tests were completed seven weeks after intervention end. Parents and youths filled out their questionnaires in different quiet rooms. I was available to both to provide assistance when necessary.

      Youth sessions. The program sessions took place twice a week over a 7-week period. I was the youth group leader, and as such, followed the PEERS manual set-up for each session. The youth session of the manual provides a plan and script of what concepts should be learned that week and what activities to play in order to help practice those concepts. An outline of the program sessions is provided in Appendix M. In sessions 11

through 13 skills for outdoor games and sports are taught. However, as these sessions took place in the month of December weather did not permit outdoor play. As suggested by the manual, indoor games were employed to replace this time.

Sessions 1, 2 & 3: Conversation skills. In the first three sessions the youths learned the different aspects of conversation skills. The first session focused on trading information, the second on two-way conversations and the third on electronic communication. One of the most important parts of youth friendships is the ability to carry on a conversation. Having these skills will enable youth to feel more comfortable conversing with their peers. They learn to trade information by asking the other person about themselves, sharing something related about themselves, finding common interests, sharing the conversation (i.e. not being a conversation hog), and not getting too personal right away. Two-way conversations builds on the skills learned in the "trading information" session by teaching the participants to ask open-ended questions, ask follow-up questions, not to be repetitive or an interviewer, to listen, have good body boundaries and make eye-contact. Lastly, the youths learned the appropriate uses of electronic forms of communication, such as, phone calls, text messages, instant messages and e-mail. They learned techniques like having a "cover story" or reason prepared to contact the person, to avoid "cold-calling" (i.e. contacting someone who has not given you their contact information), to use the "two-message rule" (i.e. if the person doesn't answer a text or instant message to avoid leaving a message more than two times in a row), and again not to get too personal online because many people have access to this information. The session also looks at cyber bullying, and educates the youths on how to avoid it and why. In all of these three sessions role-playing and behavioral rehearsal was

36

applied for the youth to completely comprehend the lesson and gave them the opportunity to practice the techniques. Additionally, a jeopardy game was played where the participants had to compete against each other in a game of trading information. The participants filled in responses to different categories and then answered questions from these categories about the other members (See Appendix N for the Jeopardy answer sheet). It is important that three sessions were given to conversational skills, as many youths with autism have deficits in this domain (Locke et al., 2010). Due to the complexity of communication skills, it was also important to separate the module into three sessions, so that the youths were able to fully understand the strategies and are given ample opportunities to practice them before moving on to different topics.

Session 4: Choosing appropriate friends. This session helped youths to understand the function and social meaning of crowds or groups, and assisted them in identifying appropriate sources of friends. The participants learned what components identify someone within a group (e.g. common interests), how to tell if they are accepted or not accepted within a group, and identify which groups they best fit in with. For the activity, the youths had to bring in a personal item. They were then broken up into dyads and rotated to a new partner every 5 minutes. The youths practiced trading information about their personal item, keeping in mind the importance of identifying common interests.

Session 5: Appropriate use of humour. Humour is one important way that people communicate with each other. However, if humour is not used appropriately it might push people away. In this lesson youths learned the rules about using humour when trying to make and keep friends. Some of the rules that were taught were: not to repeat

jokes, to use humour that is age-appropriate, to avoid jokes that insult others, are dirty or are "inside jokes," and to pay attention and learn what to do with the humour feedback they are receiving. The activity in this session was a repeat of the last sessions "trading information: personal items", which gave participants the opportunity to further practice this skill.

Sessions 6 & 7: Entering and exiting a conversation. The sixth session focused on peer entry (i.e. how to "slip into" a conversation with peers). The youths were taught this skill in three main steps, to watch/listen, to wait and to join. Role-playing exercises were used for the participants to practice these skills and learn some of the pitfalls that may occur in entering a conversation with peers. In the activity, "slipping into a conversation," the participants were broken up into small groups (no less than three), and practiced conversing with each other while taking turns slipping into the conversation. Session seven focused on exiting a conversation, when other peers are rejecting them. First youth learned to check for signs of interest, and if there is no interest they learned techniques such as, keeping their cool, looking away, turning away, and finally walking away. The role-play exercise illustrated these scenarios to them through in-vivo and video presentations. They then got to build on the last session's activity by taking turns in their groups to also withdraw from a conversation.

Session 8: Get-togethers. The focus of this session was to educate youths on how to organize and implement get-togethers with potential friends. It was recommended that they have get-togethers that are activity-based in order to lessen the pressure of maintaining conversation throughout the entire get-together. Therefore, it is important to emphasize that before the get-together takes place, the participants need to determine

who is going to be there, what they will be doing, where they will have the get-together, when the get-together will take place and to have some activities prepared. The get-together lesson was separated into three components, with a role-playing exercise after each one. The participants learn what to do and how to behave at the beginning, what to do and how to behave during, and what to do and how to behave at the end of the get-together. The participants practiced having get-togethers during the group activity by playing indoor games, such as, cards, and board games in small groups.

Session 9: Good sportsmanship. Many social interactions include the playing of games, video games, and sports, thus it is essential that these youths learn how to interact harmoniously during these activities. The goal of lesson 9 was to challenge the common notion that to win is most important by pointing out that a better goal of games and sports with friends should be to have a good time. It was important that the youths learned how to praise their friend, not to referee during a game, not to be a coach, to share and take turns, and not to sulk if they lose or gloat if they win. Again for the youth activity, they played indoor games in small groups in order to practice get-togethers with the added component of having good sportsmanship.

Sessions 10 & 11: Rejection. Session ten focused on how to handle teasing and embarrassing feedback, while session 11 focused on bullying and bad reputations. For the purposes of clarity in choosing appropriate strategies to handle both teasing and bullying, the program refers to the term teasing when discussing verbal attacks from peers and the term bullying to refer to physical attacks or threats from peers. In session ten, the youths were taught to use a technique known as "tease-the-tease" where the youth learned how to show that they do not care about what the person has said either through verbal or

action-based behavior. In this session the group activity once again built on the last session, and worked on having get-togethers and playing indoor games. The next session gave youths strategies for handling bullying and reminded them of the differences between teasing and bullying. The clarification between the two terms is important because the strategies learned for handling teasing may lead to further aggression if they are used for bullying. Some of the strategies taught for handling bullying were to, lay low, avoid the bully, not to provoke them, hang out with other people and to make sure they understand that if they are in danger to get help from an adult. The second purpose of the session was to provide ways to change a bad reputation, which is a very difficult task and long-term process that had to continue after the termination of the intervention. Some of the steps taught to change a bad reputation were to, lay low, own up to your previous reputation and find a new group or crowd. The group activity for this session focused on good sportsmanship. Due to weather constraints, outdoor games were not played, as a result, indoor games replaced this time.

  Session 12: Handling disagreements. Misunderstandings and disagreements are common among this age group, and when infrequent, do not need to result in the termination of a friendship. Thus, the purpose of the lesson was to teach some skills to help the youths resolve disagreements with their peers. Some techniques that were taught in resolving disagreements were to keep your cool, listen to the other person first, repeat what the other person is saying, explain your side, say sorry, and try to solve the problem. Role-playing and behavioral rehearsal activities were employed to further explain these concepts. The activity employed for this session was a game of Jeopardy using information they had learned about each other from previous sessions.

Session 13: Rumors and gossip. The purpose of this session was to give youths the necessary tools for handling situations where they are the target of rumours or gossip. The group members were taught that it is ineffective to confront people who spread rumours. Instead it is best to "act amazed" that anyone would believe such stories; thereby indirectly denying the rumour and making it seem silly. Some of the techniques communicated to avoid being the target of gossip were to; avoid being friends with gossips, and not to spread rumours about other people. If however, they were already targets for gossip they were also taught how to handle being the target by not showing they are upset, not confronting and avoiding the source of gossip, and acting amazed. Through role-play and video presentations the group leader demonstrated an appropriate way to handle these situations, and then allowed the participants the opportunity to practice these strategies through behavioral rehearsal. For the group activity the youths played a Jeopardy game using questions taken from the *Test of Adolescent Social Skills Knowledge (TASSK)* (Laugeson et al., 2012), as a review to what they had learned the past 7 weeks (See Appendix O for TASSK questionnaire answer sheet).

Parent sessions. The parents also attended program sessions twice a week for 7 weeks. At least one parent needed to attend every session (preferable the same parent each time). Parent sessions followed the same order of youth sessions. These sessions however, focused on the difficulties encountered when trying to complete homework assignments, with an overview of what concepts youths were learning that session.

Sessions 1, 2 & 3: Conversational skills. The purpose of the first session was to orient parents to the structure of the group and solidify the expectations of the treatment. This was done so that the content of the didactic lesson was limited. Without the core

41

components the session plan may more easily have gotten side-tracked, thereby minimizing the effectiveness of the intervention. After introductions and explanations (i.e. the purpose of the group, the structure of parent sessions, and the structure of youth sessions), parents were informed of the core concepts the youths were learning in that lesson. Therefore, in the first lesson they discussed how the youth group learned skills for trading information, and what rules go along with this skill. Further, the group leader went over the homework assignment and discussed any potential problems. The second session introduced conversational techniques. After the group leader did a homework review with the parents, they distributed the parent handout on this topic. Parents were provided with information on the goals and rules of two-way conversations and possible sources where youths may find friends. The homework assignment for the following session was then reviewed, with again troubleshooting of potential problems. In addition to helping youths with the homework assignment, parents needed to begin identifying at least one new extracurricular activity for the youths based on the youth's interests (without involving the youths). Session three focused on how to effectively navigate different forms of electronic communication. Once the previous session's homework was reviewed, parents learned about choosing appropriate friends for the youths. Additionally, rules for phone call, text messages instant messages, e-mails and internet usage were discussed. The next session's homework was also reviewed, and parents were required (without involving the youths) to identify and investigate at least one new extracurricular activity. In addition, they should have been able to identify which group they believe the youth attempted to fit in with and which group they believed the youth would best fit in with. It is important that three sessions focus on conversational skills

because it is one the core deficits in autism spectrum disorder (Laugeson et al., 2012), and a core component in acquiring positive friendships. Furthermore, communication skills are very complex and separating them into smaller components allowed the youths to abundantly grasp the concepts, as well as, to give them more time to practice these skills.

Session 4: Choosing appropriate friends. In session four, parents continued conversing on the topic of choosing appropriate friends. The previous session's homework was reviewed by the group leader, focusing on the important concepts or "buzzwords." The didactic lesson then focused on the importance of having a crowd or "clique," and the possible areas and extracurricular activities where the youths may have found these friends. The group leader then went over the next session's homework assignment, and the parent's role in assisting youths. The parent's job was to discuss with their adolescents and help them choose an appropriate group to try and make friends. The youths then had to choose someone from this group and practiced trading information with them. Further, they discussed possible extracurricular activities that would suit the youths and decided on which activities to enroll in.

Session 5: Appropriate use of humour. Session five focused on humour. Teens with ASD often have substantial deficits in understanding humour, and it is perhaps one of the more obvious social deficits for those with ASD (Emerich, Creaghead, Grether, Murray, & Grasha, 2003). Although youths with ASD have these deficits, many of them enjoy telling jokes. This enjoyment, coupled with their inattentiveness to feedback from others after the joke-telling, is the reason for the inclusion of this session topic. The content of the session highlighted the advantages of a parent-assisted approach. Once the

parents were informed on the topic they were more likely to encounter a specific example of inappropriate "humour" and were then able to intervene with a "teachable moment" that is specific enough for the adolescent to understand. Reports of the out-of-group call were an important aspect of the homework review, in order to make sure the parent or youth had not misjudged the friendship potential of the person who was called. Again the parent group leader terminated the session by going over the homework assignment for the next session and troubleshooting any potential problems.

Sessions 6 & 7: Entering and exiting a conversation. Session six focused on having the youth slip into a conversation with a social group that was considered most appropriate for them. Helping both the parent and youth find the crowd they intended to join became important for both helping establish successful friendships, and successful entry into conversations. Since most conversations occurred away from the parents, the more important work was done with the youth group. However, parents needed to be alert to encourage the best social group for the youths to try and join, and where to find this group. In session seven, the group leader reviewed the out-of-group call first (because it was more possible for parents to be present in this situation, unlike the slipping-into a conversation assignment). The didactic lesson for this session helped youths recover from an unsuccessful entry into a conversation, by learning how to exit a conversation with minimal negative social impact. This therefore gave value in having two sessions to discuss this component. The homework assignment was reviewed; potential problems were discussed, making parents able to help the youths troubleshoot any problems that may have arisen.

Session 8: Get-togethers. The content of session eight focused on get-togethers. Research has indicated that that the best way to form a best friendship is through organizing successful get-togethers between two individuals who like each other. Additionally, getting together after school is correlated with more social contacts at school (Frankel, Gorospe, Chang & Sugar, 2009, as cited in Laugeson & Frankel, 2010). It is therefore important for youths with ASD to have get-togethers with peers in order to develop closer friendships. Although this took more commitment from the parents than previous homework assignments, it did not mean the parents were expected to call the other youths or parents to arrange a get-together (that would not be developmentally appropriate). Parents were instead expected to assist youths in organizing the get-together. It is also indicated in the parent handout, what the parents "job" for having good get-togethers is, and what the youths should do in order to have a good get-together.

Session 9: Good sportsmanship. It was important to review the homework of get-togethers in this session by allowing those parents who were successful to speak first. The content of the didactic section of the lesson was concerned with rules for good sportsmanship. It was important to begin to change the social priorities of the youths in the group. Parents helped to generalize this skill and enforced good sportsmanship during get-togethers that took place in the home. Parents were a critical component because research has shown that just discussing the rules has no evidential basis for promoting generalization (Laugeson & Frankel, 2010).

Sessions 10 & 11: Rejection. In a longitudinal follow-up study, Hodges & Perry (1999) found that "third through seventh graders who were withdrawn, physically weak, and rejected by peers were most likely to be victimized by peers" (as cited in Laugeson &

Frankel, 2010). The purpose of session ten was to differentiate between teasing and embarrassing feedback, while training effective strategies for dealing with both. The terms teasing and bullying having two different definitions (as defined in the youth section) was also be explained to the parents to avoid confusion. It was important that in session ten the group leader maintained the focus on teasing, while assuring parents that they will be able to discuss bullying in the next session. Parents are often limited in helping youths handle being teased. Some parents offer advice such as "ignore them" or "walk away" in response to teasing. The group leader clarified that these strategies are often ineffective. In session 11, the didactic lesson focused on bullying and bad reputations. According to maternal reports, as many as 75% of children and teens with ASD have been bullied (Little, 2001). The most common form of bullying involves "unprovoked, systematic intimidation or physical abuse by one or more constant perpetrators upon a weaker victim" (Laugeson & Frankel, 2010, p. 293). Parents were advised in this session to help the youths identify which strategies to use with which form of peer rejection (i.e. verbal or physical attacks acquire different strategies). This session also provided youths with helpful advice on how to start changing a bad reputation. Parents were told that they needed to stay very involved in this process to improve the likelihood of the youth's success in changing reputations because it may be long and arduous and will most probably continue after intervention end.

Session 12: Handling disagreements. Homework review again focused on get-togethers. However, since the youths had had a couple of get-togethers by this time, the parents were able to reflect on the quality of the potential friends during the session. Parents compared with each other how easy the get-togethers were for the youths, and

how comfortable the youths felt about them. The didactic lesson of the current session focused on handling disagreements. It is important that the adolescent was able to practice the skills they were taught in order to learn them. Therefore, if they didn't have an opportunity to practice the skills with their peers, or during sibling conflicts, parents were informed to practice the skills at home using role play exercises.

Session 13: Rumours and gossip. Parents continued to be debriefed about the get-togethers in the homework review section, as there was still much need for input by the group leader. The didactic lesson of session 13 focused on how to appropriately manage rumours and gossip. Gossip gives information about the misadventures of others, and is a very common form of communication for youths and adults. Rumours are negative information about someone and usually begin in the context of gossip. Research has suggested that denial is the best way to dispel the negative effects of rumours. The best denial gives reasons for how the source of the rumour is not credible, and has strong arguments about why the rumour is not true (Laugeson & Frankel, 2010). However, in this lesson participants were told not to confront the source of the gossip as it may only lead to further retaliation. Parents became aware of the rules being taught in the lessons and were therefore better prepared to help their youths practice these skills at home.

Session 14: Graduation and termination. The major focus of this last session was to review the homework of get-togethers, go over the parent handout that indicated what they would need to help their adolescent continue to make and keep friends, and allow enough time to administer post-program outcome measures. The parents then reunited with the youths for the graduation ceremony, where graduation diplomas and movie gift certificates were be handed out to each individual youth.

Parent and youth rooms were adjacent to each other for quick transport of youths during each session.

Results

Efficacy of Intervention

The adolescents and parents completed the SSIS-RS and QPQ forms at pre-, post-intervention and follow-up to determine the efficacy of the PEERS program on social skills. The results of the SSIS-RS social skill and problem behavior scales were analyzed according to the respondents (Student Form and Parent Form) using paired sample t-tests. As can be seen in Table 1, the mean difference scores for social skills and problem behaviors were not statistically significant between pre- and post-test.

Table 1

Mean Difference Scores of Social Skills and Problem Behaviors on SSIS-RS Student (n = 11) and Parent Forms (n = 11)

	M	*SD*	*t*	*df*	*p*
Social Skills					
Student Pre-Post-test	3.08	25.25	0.41	10	0.69
Parent Pre-Post-test	-2.64	7.45	-1.74	10	0.27
Problem Behaviors					
Student Pre- Post-test	1.81	14.31	0.42	10	0.68
Parent Pre-Post-test	2.72	8.57	1.06	10	0.32

Note: M = mean; *SD* = standard deviation; *df* = degrees of freedom.

Further analyses were conducted to examine the changes on the individual social skills subscales and problem behavior subscales. Table 2 provides a summary of the pre- to post-test mean difference scores obtained on the Student Form. There was no statistical significance in mean scores on the problem behavior subscale; however the results demonstrate statistically significant change in mean scores on the assertion social skill subscale ($M = -2.54$, $SD = 2.62$, $t (10) = -3.22$, $p = .01$).

Table 2

Mean Difference Scores on SSIS-RS Subscales Student Form (n=11)

Behaviors	*M*	*SD*	*t*	*df*	*P*
Social Skills					
Communication Pre-Post-test	-0.18	2.92	-0.21	10	0.84
Cooperation Pre- Post-test	0.18	2.60	0.23	10	0.82
Assertion Pre-Post-test	-2.54	2.62	-3.22	10	0.01**
Responsibility Pre- Post-test	0.45	2.91	0.52	10	0.62
Empathy Pre- Post-test	0.72	2.45	0.98	10	0.35
Engagement Pre- Post-test	0.18	2.48	0.24	10	0.81
Self-Control Pre- Post-test	-1.73	3.16	-1.81	10	0.10
Problem Behaviors					
Externalizing Pre- Post-test	-0.18	6.84	-0.09	10	0.93
Bullying Pre- Post-test	0.00	2.89	0.00	10	1.00
Hyperactivity/Inattention Pre-Post	1.00	3.82	0.87	10	0.41
Internalizing Pre- Post-test	1.73	5.35	1.07	10	0.31

Note: M = mean; *SD* = standard deviation; *df* = degrees of freedom.
** *p* ≤ .01

The pre- to post-test scores of the social skill and problem behavior subscales for the Parent Forms are represented in Table 3. The results obtained demonstrate no statistical significance in either the problem behavior subscale or the social skill subscale.

Table 3

Mean Difference Scores on SSIS-RS Subscales Parent Form (n=11)

Behaviors	M	SD	T	df	P
Social Skills					
Communication Pre-Post-test	-1.27	2.19	-1.92	10	0.08
Cooperation Pre- Post-test	0.18	1.47	0.41	10	0.69
Assertion Pre-Post-test	-0.64	2.65	-0.79	10	0.44
Responsibility Pre- Post-test	-0.27	1.10	-0.82	10	0.43
Empathy Pre- Post-test	-0.27	1.79	-0.50	10	0.62
Engagement Pre- Post-test	-0.27	3.04	-0.29	10	0.77
Self-Control Pre- Post-test	0.18	3.60	0.17	10	0.87
Problem Behaviors					
Externalizing Pre- Post-test	1.27	3.07	1.37	10	0.19
Bullying Pre- Post-test	0.09	1.30	0.23	10	0.82
Hyperactivity/Inattention Pre-Post	1.00	2.48	1.33	10	0.21
Internalizing Pre- Post-test	0.45	3.33	0.45	10	0.66
Autism	2.09	4.18	1.66	10	0.13

Note: M = mean; *SD* = standard deviation; *df* = degrees of freedom.

The results from the QPQ were also analyzed according to the respondents (Student Form and Parent Form) using paired sample t-tests. As illustrated in Table 4, there was statistically significant mean difference scores between Pre- and Post-test on the Student Forms for: Overall Mean Get-togethers (M = -1.23, SD = 0.96, t (10) = -4.25, p < .01), Overall Number of Friends Listed (M = -1.14, SD = 1.57, t (10) = -2.41, p < .05), and Observed Conflict (M = 4.32 , SD = 5.62, $t(10)$ = 2.54, p < .05).

Table 4

Mean Difference Scores Pre- Post-Test on QPQ Student Form (n=11)

Quality of Play	M	SD	T	Df	P
Overall Mean Get-togethers	-1.23	0.96	-4.25	10	0.00**
Overall Number of Friends Listed	-1.14	1.57	-2.41	10	0.03*
Observed Conflict	4.42	5.62	2.55	10	0.02*

Note: M = mean; *SD* = standard deviation; *df* = degrees of freedom.
*p ≤ .05; **p ≤ .01

The pre- and post-test scores of the QPQ for the Parent Form is represented in Table 5. The results obtained show statistically significant gains in: Overall Mean Get-togethers (M = -1.00, SD = 1.05, t (10) = -3.16, p = .01), Overall Number of Friends Listed (M = -0.82, SD = 1.03, t (10) = -2.63, p < .05), and Observed Conflict approached significance.

Table 5

Mean Difference Scores Pre- Post-Test on QPQ Parent Form (n=11)

Quality of Play	*M*	*SD*	*t*	*Df*	*P*
Overall Mean Get-togethers	-1.00	1.05	-3.16	10	0.01**
Overall Number of Friends Listed	-0.82	1.03	-2.63	10	0.02*
Observed Conflict	2.62	3.42	2.17	7	0.06

Note: M = mean; *SD* = standard deviation; *df* = degrees of freedom.
*$p \le .05$; **$p \le .01$

The effects of the PEERS program on outcome variables at a 7-week follow-up were evaluated with paired sample t-tests (T1 – T3) for both respondents (Student Form and Parent Form) with both the SSIS-RS and the QPQ.

Results from the SSIS-RS between T1 and T3 for the Student Forms indicated that statistically significant gains were made in both social skills (M = -14.91, SD = 13.84, t (10) = -3.57, p < .01), and problem behaviors (M = 10.27, SD = 9.94, t (10) = 3.43, p < .01) (see Table 6). Further analysis on the changes in individual social skills and problem behavior subscales revealed the bullying subscale approaching significance, and statistically significant results in assertion (*M* = -3.18, *SD* = 3.22, *t (10)* = -3.28, *p* < .01), responsibility (*M* = -2.00, *SD* = 2.53, *t (10)* = -2.62, *p* < .05), engagement (*M* = -2.55, *SD* = 3.47, *t (10)* = -2.43, *p* < .05), self-control (*M* = -4.45, *SD* = 2.25, *t (10)* = -6.56, *p* < .01), externalizing behaviors (*M* = 3.82, *SD* = 4.53, *t (10)* = 2.79, *p* = .01),

hyperactivity/inattention ($M = 2.18$, $SD = 2.14$, $t (10) = 3.39$, $p < .01$), and internalizing

behaviors ($M = 4.54$, $SD = 4.25$, $t (10) = 3.55$, $p < .01$) (see Table 6).

Table 6

Mean Difference Scores on SSIS-RS Student Form (n=11)

Behaviors	M	SD	t	df	P
Social Skills	-14.91	13.84	-3.57	10	0.00**
Communication Pre-Follow-up	-1.45	3.20	-1.50	10	0.16
Cooperation Pre- Follow-up	-0.73	4.29	-0.56	10	0.58
Assertion Pre- Follow-up	-3.18	3.22	-3.28	10	0.00**
Responsibility Pre- Follow-up	-2.00	2.53	-2.62	10	0.02*
Empathy Pre- Follow-up	-0.82	2.36	-1.15	10	0.27
Engagement Pre- Follow-up	-2.54	3.47	-2.43	10	0.03*
Self-Control Pre- Follow-up	-4.45	2.25	-6.56	10	0.00**
Problem Behaviors	10.27	9.94	-3.57	10	0.00**
Externalizing Pre- Follow-up	3.82	4.53	2.79	10	0.01**
Bullying Pre- Follow-up	1.82	3.06	1.97	10	0.07
Hyperactivity/Inattention Pre-Follow-up	2.18	2.13	3.39	10	0.00**
Internalizing Pre- Follow-up	4.54	4.25	3.55	10	0.00**

Note: M = mean; *SD =* standard deviation; *df =* degrees of freedom.
*$p \leq .05$; **$p \leq .01$

Table 7 illustrates the T1 – T3 results for the Parent Forms. There were not statistically significant results; however the externalizing problem behaviors subscale approached significance.

Table 7

Mean Difference Scores on SSIS-RS Parent Form (n=11)

Behaviors	*M*	*SD*	*t*	*df*	*P*
Social Skills	-0.82	7.15	-0.38	10	0.71
Communication Pre- Follow-up	-1.18	2.27	-1.72	10	0.11
Cooperation Pre- Follow-up	0.09	0.94	0.32	10	0.75
Assertion Pre- Follow-up	0.54	2.21	0.82	10	0.43
Responsibility Pre- Follow-up	0.18	1.83	0.33	10	0.74
Empathy Pre- Follow-up	0.36	1.43	0.84	10	0.42
Engagement Pre- Follow-up	0.18	2.40	0.25	10	0.80
Self-Control Pre- Follow-up	-1.00	3.84	-0.86	10	0.40
Problem Behaviors	4.36	10.83	1.33	10	0.21
Externalizing Pre- Follow-up	1.91	3.14	2.01	10	0.07
Bullying Pre- Follow-up	0.27	1.35	0.67	10	0.51
Hyperactivity/Inattention Pre-Follow-up	1.09	3.59	1.01	10	0.33
Internalizing Pre- Follow-up	1.45	3.80	1.27	10	0.23
Autism Pre- Follow-up	1.91	5.48	1.15	10	0.27

Note: M = mean; *SD* = standard deviation; *df* = degrees of freedom.

The effects of the PEERS program on student outcome variables at the 7-week

follow-up for the QPQ, revealed statistically significant mean difference scores in

Observed Conflict ($M = 5.41$, $SD = 5.51$, t $(10) = 3.26$, $p < .01$) (see Table 8).

Table 8

Mean Difference Scores Time 1 – Time 3 for QPQ Student Form (n=11)

Quality of Play	*M*	*SD*	*t*	*Df*	*P*
Overall Mean Get-togethers	-0.41	0.99	-1.36	10	0.20
Overall Number of Friends Listed	-0.18	1.48	-0.40	10	0.69
Observed Conflict	5.41	5.51	3.26	10	0.00**

Note: M = mean; *SD* = standard deviation; *df* = degrees of freedom.
**$p \leq .01$

Finally, Table 9 illustrates the results of program outcomes from Time 1 - Time 3 for the QPQ Parent Forms. Once more there were statistically significant mean difference scores in Observed Conflict ($M = 3.33$, $SD = 2.18$, $t (9) = 4.59$, $p < .01$).

Table 9

Mean Difference Scores Time 1 – Time 3 for QPQ Parent Form (n=11)

Quality of Play	*M*	*SD*	*T*	*Df*	*P*
Overall Mean Get-togethers	-0.50	2.01	-0.82	10	0.10
Overall Number of Friends Listed	-0.18	2.19	-0.27	10	0.78
Observed Conflict	3.33	2.17	0.72	9	0.00**

Note: M = mean; *SD* = standard deviation; *df* = degrees of freedom.
**$p \leq .01$

Correlations Between Parent and Student QPQ Forms

Further analysis was conducted on the QPQ Student and Parent forms in order to discover if the responses between student and parent participants highly correlated with each other. A Pearson correlation using two-tailed significance testing was utilized for this study. Results indicated no statistically significant correlations at pre-test (see Table 10). However, post-test results revealed a strong correlation between Overall Mean Get-togethers by students and parents, $r (9) = 0.66$, $p < .05$. Additionally, a strong correlation was found at post-test between student and parent responses on Number of Friends Listed, $r (9) = 0.80$, $p < .01$; and Conflict Observed, $r (9) = 0.66$, $p < .05$ (see Table 11).

Finally, Table 12 illustrates a strong correlation between parent and student responses for follow-up testing of the QPQ on Observed Conflict, $r (9) = 0.79, p < .01$.

Table 10

Correlations Between Parent and Student Forms of the QPQ at Pre-test (n = 11)

Measure	Overall Mean Get-togethers Parent	Overall Mean Number of Friends Parent	Observed Conflict Parent
Overall Mean Get-togethers Student	0.44	_____	_____
Overall Mean Number of Friends Student	_____	0.45	_____
Observed Conflict Student	_____	_____	-0.07

Table 11

Correlations Between Parent and Student Forms of the QPQ at Post-test (n = 11)

Measure	Overall Mean Get-togethers Parent	Overall Mean Number of Friends Parent	Observed Conflict Parent
Overall Mean Get-togethers Student	0.66*	_____	_____
Overall Mean Number of Friends Student	_____	0.80**	_____
Observed Conflict Student	_____	_____	0.66*

*Note: *$p \leq .05$; **$p \leq .01$*

Table 12

Correlations Between Parent and Student Forms of the QPQ at Follow-up (n = 11)

Measure	Overall Mean Get-togethers Parent	Overall Mean Number of Friends Parent	Observed Conflict Parent
Overall Mean Get-togethers Student	0.37	_____	_____
Overall Mean Number of Friends Student	_____	0.35	_____
Observed Conflict Student	_____	_____	0.79**

*Note: **p ≤ .01*

Parents Perceptions of Parent Group

Parents reported their perceptions of participating in the PEERS program on a post-participation questionnaire, and a follow-up participation questionnaire. Analysis of the questionnaires was accomplished through in-vivo and evaluative first cycle coding methods, which led to developing "meta-codes" for similarly coded data through pattern coding methods. A summary of the results obtained from the questionnaires can be found in Appendix P and Q (Parent Group Time 2 and 3-Participation Questionnaire Results). The findings from time 2 and time 3 were combined to reveal the most salient themes described by parents about the PEERS program. Parents mentioned improvements in their child's social skills, specifically, in their communication skills, their ability to make and maintain friends, their social awareness, and their confidence/assertion. However,

some parents also felt that their child was still inconsistent, and at times needed prompting to socialize appropriately. They also reported that their child was not always completely comfortable in social situations, sometimes showing shyness in groups or with adults. In regards to the teen group, parents described how this group, provided their child with a sense of community, and peer support, allowing for a positive group energy to emerge. When discussing the program itself, parents expressed general positive comments such as, being very satisfied with the program, and loving the experience. Furthermore, they felt that the information provided by the program and being able to follow what their child was learning to be extremely helpful. They also stated how the program was well organized, the support and feedback provided by the team, and the techniques and tools learned to be extremely valuable. In regards to the parent group, the parents reported feeling they had learned greater awareness of the difficulties their child faces in social situations, and a greater ability to provide support and help their child with social issues, thus increasing their self-efficacy. Moreover, they reported that the experience of being with other parents in the same situation provided them with parental support, as well as, allowing them to hear different perspectives and be educated on these different methods. Therefore, it seems the parents found that the support and encouragement they received from others who understand them to be beneficial throughout the project.

In addition to asking parents about their experiences, the questionnaire asked for recommendations towards the PEERS program, and if the schedule provided any issues. The findings revealed that parents were quite evenly split between preferring twice a week, and finding it difficult to come in twice a week. Moreover, most parents wanted

the program to be longer, or on a once a week schedule. Additionally, some parents reported wanting follow-up classes either bi-weekly or monthly as refresher courses for their child. Other recommendations included; extending the in-group calls homework until the end of the program, increasing information on technology, allowing parents to observe the teen group through a one-way mirror, and decreasing the age variance within the group.

Overall, the parents reported enjoying being a part of the group, were satisfied with the information provided, and as one parent stated "the group was a positive experience and [their child] has been helped in a very tangible way."

Discussion

The purpose of this study was to evaluate the efficacy of the PEERS intervention program for enhancing social skills in adolescents with high-functioning ASD and/or social skills deficits. The overall treatment completion rate was 100%, with no attrition, and an absentee rate of 9%.

In examining the efficacy of the PEERS program, the SSIS-RS and the QPQ results demonstrated statistically significant improvements from pre-test to follow-up (T1 – T3) in overall social skills, specifically, assertion, responsibility, engagement and self-control; as well as, decreased overall problem behaviors, specifically, externalizing behaviors, hyperactivity/inattention, and internalizing behaviors. Several other social skills and problem behaviors (i.e., communication, bullying and Autism Spectrum behaviors) showed improvement between time 1 and time 3, although the measurements were not statistically significant. Additionally, the QPQ demonstrated statistically significant decreased levels of conflict during get-togethers from time 1 to time 3, and

improvements in overall mean get-togethers and overall mean number of friends listed for get-togethers, although these measurements were not statistically significant. In view of this, the results from this study add to the growing body of evidence in support of the PEERS program as a parent-assisted group intervention employing psychoeducational and cognitive-behavioral treatment techniques to teach social skills (for example, communication, appropriate uses of humor, and handling disagreements) to adolescents with high-functioning ASD or social skills deficits.

A secondary research question of this study was to examine the correlation of behavior and get-togethers between parent and student responses on the QPQ. Results indicated no significant correlations at pre-test, significant positive correlations at post-test on all three domains (i.e., overall mean get-togethers, overall mean number of friends listed, and observed conflict levels), and significant positive correlations on observed conflict levels at follow-up. It can be assumed that students and parents were in accord on all domains at post-test since having get-togethers was a homework assignment during the last few weeks of PEERS. Additionally, as homework review, both parents and students discussed these get-togethers during their sessions, and were thus more aware of the amount of get-togethers and the friends present at each get-together. The continued strong correlation between parent and student reports on conflict levels during get-togethers at follow-up conceivably indicates that student participants became more aware of their own behavior and their interactions with their peers after the program.

Several interesting patterns emerged from the findings on the SSIS-RS Student and Parent Forms. To begin, although parents saw improvements in their child's social skills and decreased problem behaviors there was a discrepancy in results when compared

to Student Forms. This is in accordance with past research which has shown that youth with High-functioning ASD report better social skills relative to parent reports (Lerner, Calhoun, Mikami, & De Los Reyes, 2012). Additionally, in a study by Lerner, Calhoun, Mikami and De Los Reyes (2012), the self-report ratings of youths with high-functioning ASD did not differ from self-report ratings of the normative sample on the SSRS, yet parents' ratings were "at least a standard deviation lower" than the SSRS standardization sample parent ratings (Lerner et al., 2012, p. 2687). This would suggest that parents of adolescents with high-functioning ASD, as compared to parents' of a normative sample, tend to underestimate their child's social skills. Moreover, it was observed that youths with high-functioning ASD who reported greater social skills compared to parent-reports had parents with a lower sense of self-efficacy (Lerner et al., 2012). It would thus seem, that parent reports are in some way clouded by their own anxiety and perceived abilities in dealing with their child's social skills deficits.

Another interesting finding from the SSIS-RS was the limited amount of statistically significant results from time 1 to time 2, demonstrating significant improvements only in assertion. Parents however, did see improvements, although not statistically significant, in communication, responsibility, empathy, engagement, and decreased externalizing behaviors, bullying, hyperactivity/inattention, internalizing behaviors and Autism Spectrum behaviors. This, coupled with parent requests for a longer program, and previous research results with the 14-week program (Laugeson & Frankel, 2010; Laugeson et al., 2012; Yoo et al., 2014) would suggest that the PEERS program is better suited and provides stronger results as a 14-week intervention.

Finally, the SSIS-RS results from time 1 to time 2 Student Forms demonstrated that on many subscales the adolescents reported a decrease in their abilities (i.e., a decrease in communication, cooperation, responsibility, empathy, engagement, and a decrease in externalizing behaviors), although measurements were not statistically significant. These results may be explained by the nature of the PEERS program in increasing the adolescent's awareness and knowledge of proper social skills, which may have in turn increased the adolescents' self-awareness. They thus, would have less social skill acquisition deficits, and would have a greater awareness of their social skills performance deficits, leading to a decrease in scores on the SSIS-RS. Moreover, the increase in Student Form SSIS-RS scores at time 3, which provided statistically significant results, suggest that the adolescents needed a greater amount of time to increase their performance capabilities. The program's 7 weeks allowed the students to become aware of their own skill base, as well as, gain social skills knowledge. Further, once given more time to practice and generalize the learned skills in a natural environment (i.e., at home and at school) they were then able to take their awareness and knowledge to increase their social skills performance abilities. Furthering the interest of the PEERS program authors, these results provide valuable insight towards the implications of condensing PEERS into a 7-week program.

Limitations of the Study

There were some limitations to the present study. To begin, this study had a relatively small sample size. Additionally, the sample included only Caucasians who were mostly male. This lack of diversity and small sample size causes the findings to be less generalizable to a larger, more diverse population. Another limitation was the lack of control group (delayed treatment group). One of the research questions in the study was

to examine the effects of modifying the program to 7-weeks, two times a week. It would thus, also have been beneficial to have a 14-week intervention group. This would have allowed a comparison to the 7-week intervention results not only with delayed treatment group but also with a 14-week intervention group. Lastly, using parent rating scales as one of the primary outcome measures, given the fact that parents were participants in the parent group, may have allowed for possible bias in their reports. In this sense, additional assessments from a third respondent, such as the child's teacher, or behavioral observations of the adolescent's social skills in naturalistic interactions would have been beneficial toward establishing further validity of the findings.

Future Directions and Conclusions

The implications of this study are that ecologically valid social skills can be taught using psychoeducational and cognitive-behavioral treatment techniques. In turn, problem behaviors can be managed through this group intervention setting. The results of the study suggest that the PEERS program is an effective method in increasing adolescent's social skills, allowing them a better ability to make and maintain quality friendships.

Furthermore, having a parent group at the same time as the adolescent group helped increase parental self-efficacy, therefore meeting parents' needs, and allowing them to be more informed and confident social coaches for their children. Indeed, providing parents with the information, tools and strategies that help their child, and then allowing for discussion with others in their immediate surroundings, increased the likelihood of consistency in supporting behaviors at home, school, and community. In fact, many parents stated that the parent component was extremely beneficial and that they would have liked to continue participating in the group.

A future direction of the current study would include gathering data, especially on friendship development, at a long-term follow-up. Many of the parents mentioned in their questionnaires that they still worry about their child's future and the multiple transitions they will have to face (i.e., transition into high school or adulthood). Allowing for a long-term follow-up would not only provide information on how the adolescents' face these transitions, but would yield useful information toward determining the durability of the findings and assess any changes that may occur. Recent reports by the PEERS developer indicate that 14-weeks after intervention there was maintenance of "social skills knowledge, social responsiveness, and overall improvements in social skills" (Schohl et al., 2014, p. 343). Moreover, in a study by Mandelberg et al. (2011), it was reported that some of these improvements continued to be apparent one to 5 years later (as cited by Schohl et al., 2014).

Social anxiety and social skills deficits are likely related to one another (White et al., 2010), and those with high-functioning ASD have been found to significantly report more social anxiety symptoms than their typically developing peers (Bellini, 2004). Therefore, it might also be helpful for future directions to include measures of anxiety both physiological and those dependent on self-report and behavioral measures of social skills.

The present study was a replication of the PEERS program, with modifications to program length and greatly adds to the minimal literature regarding social skills interventions for adolescents with ASD and/or social skills deficits. This study provides an independent replication and the first modification of PEERS to 7 weeks, and thus greatly augments knowledge on intervention efficacy. The current study found positive

outcomes of participation in PEERS at 7-week follow-up, which would indicate that

perhaps the program is better suited as a 14-week intervention. These findings however,

continue to suggest that PEERS is an appropriate intervention for adolescents with social

skills deficits on a widespread basis.

References

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders, text rev.* (4th ed.). Washington, DC: Author.

American Psychiatric Association. (2013). Highlights of Changes from DSM-IV-TR to DSM-5 (pp. 1-19).

Asher, S. R., Parker, J. G., & Walker, D. L. (1996). Distinguishing friendship from acceptance: Implications for interventions and assessment. In Bukowski, Newcomb & Hartup (Eds.), *Children's peer relations and their psychological adjustment: Differences between close friendships and the larger peer group* (pp. 366-405). New York: Cambridge University Press.

Autism and Developmental Disabilities Monitoring Network. (2012). Prevalence of Autism Spectrum Disorders (ASDs) among multiple areas of the United States in 2008. 2012, from http://www.cdc.gov/ncbddd/autism/documents/ADDM-2012-Community-Report.pdf

Banko , C. D., & Buysse, V. (2002). Thank you for being a friend. *Young Exceptional Children, 6*(2), 2-9.

Bauminger, N., & Kasari, C. (2000). Loneliness and friendship in high-functioning children with autism. *Child Development, 71*(2), 447-456.

Bellini, S. (2004). Social skills deficits and anxiety in high-functioning adolescents with autism spectrum disorders. *Focus on Autism and Other Developmental Disorders, 19*(2), 78-86.

Bellini, S., Peters, J. K., Benner, L., & Hope, A. (2007). A meta-analysis of school-based social skills interventions for children with autism spectrum disorders. *Remedial and Special Education, 28*(3), 153-162.

Buhrmester, D. (1990). Intimacy of friendship, interpersonal competence, and adjustment during preadolescence and adolescence. *Child Development, 61*(4), 1101-1111.

Bukowski, W. M., Newcomb, A. F., & Hartup, W. W. (1996). Friendship and its significance in childhood and adolescence: Introduction and comment. In Bukowski, Newcomb & Hartup (Eds.), *The Company they Keep: Friendship in Childhood and Adolescence* (pp. 1-15). New York: Cambridge University Press.

Bukowski, W. M., & Sippola, L. K. (1996). Friendship and morality: (How) are they related? In Bukowski, Newcomb & Hartup (Eds.), *The Company they Keep: Friendship in Childhood and Adolescence* (pp. 238-261). New York: Cambridge University Press.

Burrell, T. L., & Borrego, J. J. (2012). Parents' Involvement in ASD Treatment: What Is Their Role? *Cognitive and Behavioral Practice, 19*(3), 423-432. doi: http://dx.doi.org/10.1016/j.cbpra.2011.04.003

Caballero, A., & Connell, J. E. (2010). Evaluation of the effects of social cue cards for preschool age children with autism spectrum disorders (ASD). *Journal of Behavioral Assessment and Intervention in Children, 1*, 25-42.

Centre for the Arts in Human Development. (2014). About the Centre.   Retrieved January 28, 2014, from http://cahd.concordia.ca/about-the-centre/

Colman , A. M. C. T. O. d. o. p. e. (Ed.) (2009) The Oxford dictionary of psychology.

Corbett, B. A., & Abdulla, M. (2005). Video modeling: Why does it work for children with autism? *Journal of Early and Intensive Behavioral Intervention, 2*, 2-8.

Cotugno, A. J. (2009). Social competence and social skills training and intervention for children with autism spectrum disorders. *Journal of Autism Developmental Disorders, 39*, 1268-1277. doi: 10.1007/s10803-009-0741-4

Crosby, J. W. (2011). Test Review: F. M. Gresham & S. N. Elliott Social Skills
Improvement System Rating Scales. Minneapolis, MN: NCS Pearson, 2008.
Journal of Psychoeducational Assessment, 29(3), 292-296. doi:
0.1177/0734282910385806

D'Amico, M., Miodrag, N., & Dinolfo, F. (2009). Assessing the effect of creative arts
therapies on the quality of life of individuals with developmental disabilities. In
D'Amico & Snow (Eds.), *Assessment in the Creative Arts Therapies* (pp. 257-
294). Springfield, IL: Charles C. Thomas.

DeRosier, M. E., Swick, D. C., Davis, N., McMillen, J., & Matthews, R. (2011). The
efficacy of a social skills group intervention for improving social behaviors in
children with high-functioning autism spectrum disorders. *Journal of Autism and
Developmental Disorders*(41), 1033-1042. doi: 10.1007/s10803-010-1128-2

Elliot, S. (2007). *Social skills: Enabling learning, growing friends*: Pearson Education.

Emerich, D. M., Creaghead, N. A., Grether, S. M., Murray, D., & Grasha, C. (2003). The
comprehension of humorous materials by adolescents with high-functioning
autism and Asperger's syndrome. *Journal of Autism and Developmental
Disorders, 33*(3), 253-257.

Klima, T., & Repetti, R. L. (2008). Children's peer relations and their psychological
adjustment: Differences between close friendships and the larger peer group.
Merrill-Palmer Quarterly, 54(2), 151-178.

Kokina, A., & Kern, L. (2010). Social story interventions for students with autism
spectrum disorders: A meta-analysis. *Journal of Autism Developmental Disorder,
40*, 812-826. doi: 10.1007/s10803-009-0931-0

Kroeger, K. A., Schultz, J. R., & Newsom, C. (2007). A comparison of two-group-delivered social-skills programs for young children with autism. *Journal of Autism Developmental Disabilities, 37*, 808-817. doi: 10.1007/s10803-006-0207-x

Ladd, G. W., & Kochenderfer, B. J. (1996). Linkages between friendship and adjustment during early school transitions. In Bukowski, Newcomb & Hartup (Eds.), *The Company they Keep: Friendship in Childhood and Adolescence* (pp. 322-345). New York: Cambridge University Press.

Laugeson, E. A., & Frankel, F. (2010). *Social skills for teenagers with developmental and autism spectrum disorders*. New York, NY: Routledge.

Laugeson, E. A., Gantman, A., Dillon, A. R., & Mogil, C. (2012). Evidence-based social skills training for adolescents with autism spectrum disorders: The UCLA PEERS program. *Journal of Autism Developmental Disorders, 42*, 1025-1036. doi: 10.1007/s10803-011-1339-1

Lerner, M. D., Calhoun, C. D., Mikami, A. Y., & De Los Reyes, A. (2012). Understanding parent-child social informant discrepancy in youth with high-functioning autism spectrum disorders *Journal of Autism and Developmental Disorders, 42*, 2680-2682. doi: 10.1007/s10803-012-1525-9

Little, L. (2001). Peer victimization of children with Asperger Spectrum Disorders. *Journal of American Academy of Child & Adolescent Psychiatry, 40*(9), 995-996.

Lo, L. (2010). Perceived benefits experienced in support groups for Chinese families of children with disabilities. *Early Child Development and Care, 180*(3), 405-415. doi: 10.1080/03004430802002625

Locke, J., Ishijima, E. H., Kasari, C., & London, N. (2010). Loneliness, friendship quality and the social networks of adolescents with high-functioning autism in an

inclusive school setting. *Journal of Research in Special Educational Needs, 10*(2), 74-81. doi: 10.1111/j.1471-3802.2010.01148.x

Mandell, D. S., & Salzer, M. S. (2007). Who joins support groups among parents of children with autism? *Autism, 11*(2), 111. doi: 10.1177/1362361307077506

Mash, E. J., & Wolfe, D. A. (2010). *Abnormal child psychology*. Belmost, CA.: Wadsworth.

Newcomb, A. F., & Bagwell, C. L. (1996). The developmental significance of children's friendship relations. In Bukowski, Newcomb & Hartup (Eds.), *The Company they Keep: Friendship in Childhood and Adolescence* (pp. 289-321). New York: Cambridge University Press.

Nikopoulos, C. K., & Keenan, M. (2004). Effects of video modeling on social initiations by children with autism. *Journal of Applied Behavior Analysis, 37*, 93-96.

Oxford Dictionary. (Ed.) (2012) Oxford English Dictionary. Oxford University Press.

Reichow, B., & Volkmar, F. R. (2010). Social skills interventions for individuals with autism: Evaluation for evidence-based practices within a best evidence synthesis framework. *Journal of Autism and Developmental Disorders, 40*, 149-166. doi: 10.1007/s10803-009-0842-0

Schohl, K. A., Van Hecke, A. V., Meyer Carson, A., Dolan, B., Karst, J., & Stevens, S. (2014). A replication and extension of the PEERS intervention: Examining effects on social skills and social anxiety in adolescents with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 44*(3), 532-545. doi: 10.1007/s10803-013-1900-1

Sebanc, A. M., Kearns, K. T., Hernandez, M. D., & Galvin, K. D. (2007). Predicting having a best friend in young children: Individual characteristics and friendship features. *Journal of Genetic Psychology, 168*, 81-95.

Van Hecke, A. V., Stevens, S., Carson, A. M., Karst, J. S., Dolan, B., Schohl, K., . . . Brockman, S. (2013). Measuring the plasticity of social approach: A randomized controlled trial of the effects of the PEERS intervention on EEG asymmetry in adolescents with autism spectrum disorders. *Journal of Autism and Developmental Disorders*. doi: 10.1007/s10803-013-1883-y

Volkmar, F. R., & Klin, A. (1993). *Theory of mind deficits in autism: Social or cognitive? Primary or secondary?* Paper presented at the The 60th Meeting of the Society for Research in Child Development, New Orleans, LA.

White, S. W., Albano, A. M., Johnson, C. R., Kasari, C., Ollendick, T., Klin, A., . . . Scahill, L. (2010). Development of a cognitive-behavioral intervention program to treat anxiety and social deficits in teens with high-functioning autism. *Clinical Children and Family Psychology Review, 13*, 77-90. doi: 10.1007/s10567-009-0062-3

White, S. W., & Roberson-Nay, R. (2009). Anxiety, social deficits, and loneliness in youth with autism spectrum disorders. *Autism Developmental Disorders, 39*, 1006-1013. doi: 10.1007/s10803-009-0713-8

Wolfberg, P. J., & Schuler, A. L. (1993). Integrated play groups: A model for promoting the social and cognitive dimensions of play in children with autism. *Autism and Development Disorders, 23*(3), 467-489.

World Health Organization. (1997). WHOQOL Measuring Quality of Life. *World Health Organisation: Program on Mental Health.* Retrieved 12 December, 2012, from http://www.who.int/mental_health/media/68.pdf

Yoo, H.-J., Bahn, G., Cho, I.-H., Kim, E.-K., Kim, J.-H., Min, J.-W., . . . Laugeson, E. A.
 (2014). A randomized controlled trial of the Korean version of the PEERS parent-
 assisted social skills training program for teens with ASD. *International Society of
 Autism Research, 7*(1), 145-161. doi: 10.1002/aur.1354

UNIVERSITÉ Concordia UNIVERSITY

CERTIFICATION OF ETHICAL ACCEPTABILITY

FOR RESEARCH INVOLVING HUMAN SUBJECTS

Name of Applicant: Dr. Miranda D'Amico

Department: Education

Agency: N/A

Title of Project: Examining Effective Social Skills
                            Interventions for Youths with Autism
                            Spectrum Disorder (ASD): The UCLA
                            PEERS program

Certification Number: 30001147

Valid From: June 20, 2013   to: June 19, 2014

The members of the University Human Research Ethics Committee have examined the application for a grant to support the above-named project, and consider the experimental procedures, as outlined by the applicant, to be acceptable on ethical grounds for research involving human subjects.

_____

Dr. James Pfaus, Chair, University Human Research Ethics Committee

01/29/2009
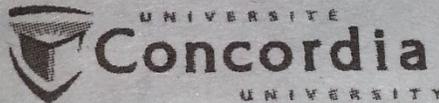
UCLA PEERS®
Program

Social Skills Group for Youths

PEERS® (Program for the Education and Enrichment of Relational Skills), is being proposed by Loredana Marchica, an M.A student in Child Studies. PEERS is a 7-week evidence-based social skills intervention for motivated youths with Autism Spectrum Disorder (ASD), ages 12-17 years old, who are interested in learning ways to help them make and keep friends. During each group session, youths are taught important social skills and are given the opportunity to practice these skills in session during socialization activities. Parents attend separate sessions at the same time and are taught how to assist their teens in making and keeping friends by helping to expand their teen's social network and providing feedback through coaching during weekly socialization homework assignments. Enrollment is limited. Parent participation is required.

Your Teen Will Learn

◆How to use appropriate conversational skills
◆How to find common interests by trading information
◆How to appropriately use humor
◆How to enter and exit conversations between peers
◆How to handle rejection, teasing, and bullying
◆How to handle rumors and gossip

◆How to be a good host during get-togethers
◆How to make phone calls to friends
◆How to choose appropriate friends
◆How to be a good sport
◆How to handle arguments and disagreements
◆How to change a bad reputation

UNIVERSITÉ
Concordia
UNIVERSITY

For more information or to enroll, please
contact us at
(514) 245-1042 or email:
lo_marc@concordia.education.ca

PEERS Screening Application Form

Program for the Education and Enrichment of Relational Skills

Youth Name:		Date:	
Date of Birth (M/D/Y):		M	F
Age:	Grade:	School:	

Family Information

Family type:

☐ Bio parents   ☐ Adoptive parents   ☐ Foster   ☐ Group home
☐ Two-parent   ☐ Single-parent   ☐ Other: _____

Who will attend sessions:

☐ Bio-mom   ☐ Bio-dad   ☐ Step-mom   ☐ Step-dad
☐ Foster mom   ☐ Foster dad   ☐ Adoptive mom   ☐ Adoptive dad
☐ Other:_____

Identifying Information

Parent (s) Name:		
Address:		
E-mail:		
Home Phone:	Work Phone:	Cell Phone:
Diagnosis:		Meds:
IQ score/classification:		School Setting:
Check all that apply to you and your child:		
Youth is between the ages of 12-17	Major Mental illness (schizophrenia, bipolar, etc.), Specify:_____	

IQ above 70 Social problems Parent and child fluent in English Parent/guardian willing to participate Youth willing to participate	Physical disability (prevents outdoor play), Specify:_____ Medical conditions (preventing participation), Specify:_____
Internalizing Problems (check all problems that apply to your child):	
Ongoing fear of social situations Appears anxious interacting with peers/or tries to avoid them Worries excessively about his/her competence and quality of performance	Trouble paying attention to what he/she is doing Trouble sleeping Has a hard time starting things Shows sadness and cries a lot Sudden loss of appetite
Behavioural Problems (check all that apply to your child):	
Inappropriate classroom behaviour Trouble with home/school work Violence/aggression Fire setting Stealing	Severe property destruction Argumentative/tantrums/disobeying Parent afraid of child Previously hospitalized for behaviour Other (specify):_____ _____
Social Problems (check all that apply to your child):	
No get-togethers No friends at school/community Socially isolated/withdrawn Social anxiety Trouble making friends Trouble keeping friends	Inappropriate peer group Aggression or mean to peers Teased/bullied Rejected by peers Social awkward Trouble understanding social cues
Comments:	

Appendix D- Student Oral Consent Form (12-14 years)

Student Oral Consent Form to Participate in Research

This consent form will be paraphrased in a manner that is consistent with the age of the youth's age (12-17). As an example of what is appropriate for the 12-14 year olds, he/she would say:

I am here to explain why we are meeting. Is it okay for you to answer some questions that teens your age may do when you are in school, at home talking with friends or other people? You can decide to stop answering any of these questions at any time if you do not want to.

I would like to know if it is okay for you to participate the PEERS program where we will help you learn ways to make and keep friends? We do this by teaching you important skills that are needed in friendships, things like how to have a good conversation, how to walk up to other teens and join their conversations, and how to have get-togethers with friends. We also teach you skills that help you solve problems with friends; things like what to do when you're teased and bullied, how to solve problems with a friend, and even how to change what people say, if they say things about you that isn't nice. We not only teach you these skills but we have you practice them in a group with other teens your age. While you are in the teen group, your parent(s) will be in their own group in a separate room. The idea behind the parent group is that we're trying to teach your parents what you're learning and help them find places where you might be able to make new friends. The great news is the groups are usually fun and most of the teens who participate in PEERS are able to work and get better at their friendship skills by the end of the 7 weeks. If at any point you are uncomfortable, you may decide to stop.

Being a part of this project is your choice. You can say 'Yes' or 'No'. Either way is OK

It is also OK to say yes and change your mind later. You can stop being a part of this project and stop coming at any time. If you want to stop, please tell any of the adults that are helping you with the activities.

You can ask us any questions you have. You can ask any questions you have at any time. Take the time you need to make your choice.

Does that sound like something you'd be interested in doing?

Do you have any general questions or questions about the program?

Date:

Signature of Research Assistant:

Student Oral Consent Form to Participate in Research

This consent form will be paraphrased in a manner that is consistent with the age of the youth's age (12-17). As an example of what is appropriate for the 15-17 year olds, he/she would say:

I am here to explain why we are meeting. Is it okay for you to answer some questions that teens your age may do when you are in school, at home talking with friends or other people? You can decide to stop answering any of these questions at any time if you do not want to.

I would like to know if it is okay for you to participate the PEERS program where we will help you learn ways to make and keep friends? We do this by teaching you important skills that are needed in friendships, things like how to have an appropriate conversation, how to walk up to other teens and join their conversations, and how to have get-togethers with friends. We also teach you skills that help you handle conflicts with peers; things like how to handle teasing and bullying, how to resolve and arguments with a friend, and even how to change a bad reputation. We not only teach you these skills but we have you practice them in a group with other teens your age. While you are attending the teen group, your parent(s) will be attending their own group in a separate room. The idea behind the parent group is that we're trying to teach your parents what you're learning and help them identify places where you might be able to make new friends. The great news is the groups are usually fun and most of the teens who participate in PEERS are able to improve their friendship skills by the end of the 7 weeks. If at any point you are uncomfortable, you may decide to stop.

Participating in this project is your choice. You can say 'Yes' or 'No'. Either way is OK

It is also OK to say yes and change your mind later. You can stop participating in this project at any time. If you want to stop, please tell any of the adults that are helping you with the activities.

You can ask us any questions you have. You can ask any questions you have at any time. Take the time you need to make your choice.

Does that sound like something you'd be interested in doing?

Do you have any general questions or questions about the program?

Date:
Signature of Research Assistant:

Consent to participate in: Examining Effective Social Skills Interventions for Youths with High-Functioning Autism and Social Skills Deficits: The UCLA PEERS Program

This is to state that I understand that I have been asked to participate in a thesis program of research being conducted by Loredana Marchica, M.A Candidate, under the supervision of Dr. Miranda D'Amico of the Department of Education of Concordia University. I understand that if I have any questions or concerns I am free to contact Loredana by e-mail at lo_marc@education.concordia.ca or by phone at (514) 245-1042. I also understand that I am free to contact her thesis supervisor Dr. Miranda D'Amico by e-mail at miranda@education.concordia.ca or by phone at (514) 848-2424 ext. 2040.

A. Purpose

I have been informed that the purpose of the research is as follows; to examine the efficacy and durability of the PEERS program, a parent-assisted social skills group intervention for high-functioning youths with Autism Spectrum Disorder (ASD) and Social Skills Deficits.

Procedures

The procedure of the research will take place in four phases. I understand that both my child and myself, will first meet with the researcher to fill out pre-test questionnaires concerning my child's behaviours and social interests. I understand that if accepted into the program, both my child and I will attend 14 sessions (90 minutes long), over 7 weeks on different topics concerning social skills at Concordia University. I also agree and understand that at the 14th session, both my child and I will complete the same questionnaires as before to measure the improvements after the program, and will return 7 weeks after the program has finished to complete the questionnaires and see if improvements have been maintained.

B. Risk and Benefits

By participating in this research project, I understand that some of the potential benefits are being able to feel more confident in parenting my child, as well as having had resources and skills presented to me to help them overcome the challenges of high school. I understand that potential benefits for my child will be them being more confident in the skills learned and better able to interact with their peers. I am aware that this project is a replication of the PEERS program created at UCLA and as such, since previous studies of this project have not aggravated children's behavior, the researchers

do not expect participants' behaviors to worsen either. I understand that sometimes in a social skills group program issues may arise that can cause discomfort. The purpose of the group process is to work through these difficulties in a positive problem-solving approach that will lead to increased social competency. However, I am also aware that if at any time I am too uncomfortable, or my child does not want to participate anymore in the study, that we are both free to discontinue participation with no penalties brought onto us.

C. Conditions of participation

- I understand that I am free to withdraw my consent and discontinue my participation at any time without negative consequences.

- I understand that my participation in this study is:

    CONFIDENTIAL (i.e. the researcher will know, but will not disclose my identity)

- I understand that the data from this study may be published

I HAVE CAREFULLY STUDIED THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY CONSENT AND VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY.

NAME (please print)

_____

Signature

_____

If at any time you have questions about your rights as a research participant, please contact Adela Reid, Research Ethics and Compliance Officer, Concordia University, at (514) 848-2424, X7481 or by e-mail at areid@alcor.concordia.ca.

Appendix F- Post-Test Participation Questionnaire

PEERS Parent Participation Questionnaire T2

1. How do you feel about the information covered in the parenting classes?

2. What parts of the PEERS program have been most valuable to you as a parent? (please be as specific as possible)

3. What parts of the PEERS program do you feel have been most valuable to your child? (please be as specific as possible)

4. If you could change anything about PEERS what would it be?

5. What do you feel you learned from being in the program?

6. What things can you observe about your child that are different now from when you first started the program?

7. What things can you observe about yourself that are different now from when you first started the program?

8. Are you satisfied with the program, why or why not?

9. How did the fact that we met twice a week fit with your family schedules and priorities?

10. Is there anything else you would like to say about the program that was not covered in the questions?

Appendix G- Follow-up Participation Questionnaire

PEERS Parent Participation Questionnaire T3

1. What were your experiences with your child following the PEERS program?

2. How has the experience of maintaining and practicing the skills learned in PEERS during the past 7 weeks been for you and your child?

3. Have you noticed any changes in your child since the end of the program? Explain.

4. How is your child coping in social situations? (i.e. stress levels, comfort levels, conversation, etc.)?

5. What do you worry about in terms of socialization and friendships for your child?

6. Is there is anything you would like to mention that has not been covered in the questions?

Instructions

This booklet contains statements describing your child's behavior and consists of two parts: Social Skills and Problem Behaviors.

Social Skills & Problem Behaviors

Please read each item and think about your child's behavior during the past two months. Then, decide **how often** your child displays the behavior.

  If your child **never** behaves this way, fill in the Ⓝ.
  If your child **seldom** behaves this way, fill in the Ⓢ.
  If your child **often** behaves this way, fill in the Ⓞ.
  If your child **almost always** behaves this way, fill in the Ⓐ.

For each of the Social Skills items, please also rate **how Important** you think the behavior is for success for your child's development..

  If you think the behavior is **not important** for your child's development, fill in the Ⓝ.
  If you think the behavior is **important** for your child's development, fill in the Ⓘ.
  If you think the behavior is **critical** for your child's development, fill in the Ⓒ.

Please mark every item. If you are uncertain of your response to an item, give your best estimate. There are no right or wrong answers.

Before starting, be sure to complete the information in the boxes on pages 1 and 4 of this form.

Social Skills	How Often?	How Important?
1. Expresses feelings when wronged.	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
2. Follows household rules.	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
3. Tries to understand how you feel.	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
4. Says "thank you".	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
5. Asks for help from adults.	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
6. Takes care when using other people's things.	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
7. Pays attention to your instructions	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
8. Tries to make others feel better.	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
9. Joins activities that have already started	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
10. Takes turns in conversations.	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
11. Says when there is a problem.	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
12. Works well with family members	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
13. Forgives others	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
14. Speaks in appropriate tone of voice	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
15. Stands up for others who are treated unfairly	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
16. Is well-behaved when unsupervised	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
17. Follows your directions	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
18. Tries to understand how others feel	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
19. Starts conversations with peers	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
20. Uses gestures or body appropriately with others	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
21. Resolves disagreements with you calmly	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
22. Respects the property of others	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
23. Makes friends easily	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
24. Says "please."	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
25. Questions rules that may be unfair	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
26. Takes responsibility for her/his own actions	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
27. Completes tasks without bothering others	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
28. Tries to comfort others.	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
29. Interacts well with other children.	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ
30. Responds well when others start a conversation or activity	Ⓝ Ⓢ Ⓞ Ⓐ	Ⓝ Ⓘ Ⓒ

Appendix I- Sample of SSIS-RS Student Form (13-18 years)

Instructions

This booklet contains a list of things students your age may do and has two parts: Social Skills and Problem Behaviors. Please read each sentence and think about yourself.

Social Skills & Problem Behaviors

Decide **how true** each sentence is for you.

    If you think it is **not true** for you, fill in the Ⓝ.
    If you think it is **a little true** for you, fill in the Ⓛ.
    If you think it is **a lot true** for you, fill in the Ⓐ.
    If you think it is **very true** for you, fill in the Ⓥ.

Then, decide **how important** you think the sentence is when you are with others.

    If you think it is **not important** for you, fill in the Ⓝ.
    If you think it is **important** for you, fill in the Ⓘ.
    If you think it is **critical** for you, fill in the Ⓒ.

Please answer all questions with the best response for you for each sentence, even if it is hard for you to make up your mind. There are no right or wrong answers. Please ask questions if you do not know what to do. Begin working when told to do so.

Before starting, be sure to complete the information in the boxes on page 1 of this form.

Social Skills	How True?	How Important?
1. I ask for information when I need it	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
2. I pay attention when others present their ideas	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
3. I try to forgive others when they say "sorry".	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
4. I'm careful when I use things that aren't mine	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
5. I stand up for others when they are not treated well	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
6. I say "please" when I ask for things	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
7. I feel bad when others are sad.	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
8. I get along with other children/adolescents	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
9. I ignore others who act up in class.	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
10. I take turns when I talk with others.	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
11. I show others how I feel	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
12. I do what the teacher asks me to do	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
13. I try to make others feel better	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
14. I do my part in a group	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
15. I let people know when there's a problem	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
16. I look at people when I talk to them	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
17. I help my friends when they are having a problem.	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
18. I make friends easily	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
19. I do my work without bothering others	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
20. I am polite when I speak to others	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
21. I stay calm when I am teased.	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
22. I follow school rules	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
23. I ask others to do things with me	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
24. I am well-behaved	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
25. I say nice things about myself without bragging.	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
26. I stay calm when people point out my mistakes.	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
27. I try to think about how others feel	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
28. I meet and greet new people on my own	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
29. I do the right thing without being told	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ
30. I smile or wave at people when I see them	Ⓝ Ⓛ Ⓐ Ⓥ	Ⓝ Ⓘ Ⓒ

Quality of Play Questionnaire – Parent (QPQ-P)

We would like the information on your teen's friendships. We **only** want to know about the friends that your teen has invited for a **get-together.** Do not consider friends who only did homework together.

Please indicate how many get-togethers your teen has **hosted in the past month:** _____**.**
Please fill in the **first names** of the friends who have attended a get-together **hosted by your teen in the past month**. If your teen has not had any friends over for a get-together in the past month, leave the section below blank.

Friend's first name _____   Friend's first name _____
Friend's first name _____   Friend's first name _____
Friend's first name _____   Friend's first name _____
Friend's first name _____   Friend's first name _____

What the teens did during the last visit you observed:
Consider the last get-together your teen hosted in which you were around to see or hear what was happening. Circle the number below that describes how true the preceding statement is.

	Not at All	Just a Little	Pretty Much	Very Much
They did things without each other	0	1	2	3
They did not share games, personal items, etc.	0	1	2	3
They got upset at each other	0	1	2	3
They argued with each other	0	1	2	3
They criticized and teased each other	0	1	2	3
They were bossy with each other	0	1	2	3
They allowed a sibling to join the get-together unexpectedly	0	1	2	3
They allowed other teens to join the get-together unexpectedly	0	1	2	3
They needed a parent to solve problems	0	1	2	3
They annoyed each other	0	1	2	3

Quality of Play Questionnaire – Adolescent (QPQ-A)

Please indicate how many get-togethers you **hosted in the last month**_____
Please list the **first names** of all of the friends who have come to a get-together hosted by you the past month. Do not include friends who only came to do homework. If you did not have get-togethers in the past month, leave the section below blank.

Friend's first name _____   Friend's first name _____
Friend's first name _____   Friend's first name _____
Friend's first name _____   Friend's first name _____
Friend's first name _____   Friend's first name _____

What did you do during the last get-together?
Consider the **last get-together you hosted.** Circle the number that describes how true the sentence is.

|	Not at All	Just a Little	Pretty Much	Very Much
We did things without each other	0	1	2	3
We did not share games, personal items, etc.	0	1	2	3
We got upset at each other	0	1	2	3
We argued with each other	0	1	2	3
We criticized and teased each other	0	1	2	3
We were bossy with each other	0	1	2	3
We allowed a sibling to join the get-together unexpectedly	0	1	2	3
We allowed other teens to join the get-together unexpectedly	0	1	2	3
We needed a parent to solve problems	0	1	2	3
We annoyed each other	0	1	2	3

CERTIFICATE OF COMPLETION

Student Name

Is thanked for their phenomenal participation in

PEERS
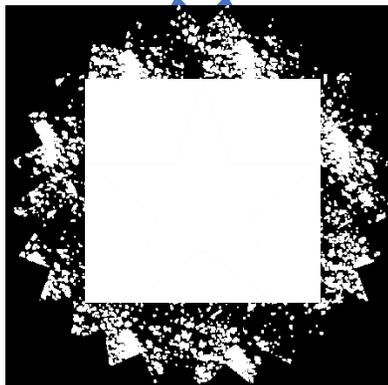
PRESENTED BY: *Loredana Marchica and Stephanie Peccia*

ON THIS DAY: *December 14, 2013*

Appendix M – Overview of Sessions

Session	Didactic Lesson	Homework Review	Teen Activity	Homework Assignment
1 Oct. 29	Introduction and Conversational Skills I: Trading Information	None	Jeopardy	In-group call Practice trading info with parent
2 Nov. 2	Conversational Skills II: Two-Way Conversations	In-group call Practice trading info with parent	Jeopardy	In-group call Practice trading info with parent
3 Nov. 5	Conversational Skills III: Electronic Communications	In-group call Practice trading info with parent	Jeopardy	In-group call Practice trading info with parent Sources of friends Personal Item
4 Nov. 9	Choosing Appropriate Friends	In-group call Practice trading info with parent Sources of friends Personal Item	Trading Information: Personal Items	In-group call Out-group call Sources of friends Personal Item
5 Nov. 12	Appropriate Use of Humour	In-group call Out-group call Sources of friends Personal Item	Trading Information: Personal Items	In-group call Out-group call Sources of friends Humour feedback Personal Item
6 Nov. 16	Peer Entry I: Entering a Conversation	In-group call Out-group call Sources of friends Humour feedback Personal Item	Trading Information: Personal Items	Slipping in In-group call Out-group call Humour feedback Personal item
7 Nov. 19	Peer Entry II: Exiting a Conversation	Slipping in In-group call Out-group call	Trading Information: Personal Items	Slipping in Out-of-group call Indoor game

		Humour feedback Personal item		
8 Nov. 23	Get-togethers	Slipping in Out-of-group call Indoor game	Get-togethers	Get-together Slipping in Indoor game
9 Nov. 26	Good Sportsmanship	Get-together Slipping in Indoor game	Get-together and Good Sportsmanship	Get-together Being a good sport Slipping in Indoor game
10 Nov. 30	Rejection I: Teasing and Embarrassing Feedback	Get-together Being a good sport Slipping in Indoor game	Get-together and Good Sportsmanship	Get-together Being a good sport Tease-the-tease Outdoor equipment
11 Dec. 3	Rejection II: Bullying and Bad Reputations	Get-together Being a good sport Tease-the-tease Outdoor equipment	Good Sportsmanship and Outdoor activities	Get-together Tease-the-tease Handling bullying/bad reps Outdoor equip.
12 Dec. 7	Handling Disagreements	Get-together Tease-the-tease Handling Bullying/bad Reps Outdoor equip.	Good Sportsmanship and Outdoor activities	Get-together Tease-the-tease Handling bullying/bad reps Handling disagreements Outdoor equip.
13 Dec. 10	Rumours and Gossip	Get-together Tease-the-tease Handling Bullying/bad Reps Handling disagreements Outdoor equip.	Good Sportsmanship and Outdoor activities	Get-together Handling rumors/gossip Tease-the-tease Handling bullying/bad reps Handling disagreements

14 Dec. 14	Graduation and Termination	Get-together Handling rumours/gossip Tease-the-tease Handling bullying/bad reps Handling disagreements	Graduation party and Ceremony	None

Appendix N- Jeopardy Game Sheet

"Jeopardy" Answer Sheets

"School" Spirit The answer is: The name of _____ 's school. 　　　　　　(Name) The question is: What is _____ ? 　　　(Name of your school)	**TGIF** The answer is: _____ 's favorite weekend activity. 　　　(Name) The question is: What is _____ ? 　　　(Favorite weekend activity)
Sports & Leisure The answer is: _____ 's favorite sport. 　　(Name) The question is: What is _____ ? 　　　(Favorite sport)	**"Game" Time** The answer is: _____ 's favorite game. 　　(Name) The question is: What is _____ ? 　　　(Favorite game)
Movies, Movies, Movies The answer is: _____ 's favorite movie. 　　(Name) The question is: What is _____ ? 　　　(Favorite movie)	**"TV" Time** The answer is: _____ 's favorite TV show. 　　(Name) The question is: What is _____ ? 　　　(Favorite TV show)
"Home" Sweet "Home" The answer is: The name of the city _____ lives in. 　　　　　　(Name) The question is: What is _____ ? 　　(Name of the city you live in)	**The "Eyes" Have It** The answer is: The color of _____ 's eyes. 　　　　(Name) The question is: What is _____ ? 　　(Your eye color)

8. It is *always* a good sign if someone laughs at your jokes:
   ☐ True.
   ☐ False.

9. It is *always* a good idea to try to make friends with:
   ☐ Someone who is more popular than you.
   ☐ Someone who likes the same things as you.

10. It is a good idea to have a group or a crowd because:
    ☐ You are more likely to be popular.
    ☐ It protects you from bullying.

11. When you are trying to join a conversation, the *first* thing you should do is:
    ☐ Watch and listen to observe the conversation.
    ☐ Make a comment about what they are saying.

12. When joining a conversation, you should wait for:
    ☐ Someone to invite you to talk.
    ☐ A pause in the conversation.

13. If you try to join a conversation and the people ignore you:
    ☐ Slip out of the conversation.
    ☐ Make sure they can hear you.

14. If you try to join 10 different conversations, on average, how many times out of 10 are you likely to be rejected:
    ☐ 7 out of 10.
    ☐ 5 out of 10.

15. When having a friend over for a get-together at your home:
    ☐ Tell your friend what you are going to do.
    ☐ Have your friend choose the activity.

16. If you are having a friend over for a get-together and someone else unexpectedly calls that you really like, you should:
    ☐ Invite your other friend over.
    ☐ Tell them that you are busy and will call them later.

17. Teens like to play sports with other teens who:
    ☐ Score points and play well.
    ☐ Praise them.

18. When people are not playing by the rules, you should:
    ☐ Nicely remind them what the rules are.
    ☐ Do not referee them.

19. If another kid teases you or calls you a name, you should:
    ☐ Tease the tease.
    ☐ Tell an adult.

20. When someone teases you, the best thing to do is:
    ☐ Ignore that person and walk away.
    ☐ Act like what he or she said did not bother you.

21. If someone is bullying you, the *first* thing you should do is:
    ☐ Get help from an adult.
    ☐ Avoid the bully.

PEERS Parent Questionnaire T2

1. **How do you feel about the information covered in the parenting classes?**

1.2: The opportunity to learn what was happening with the teenagers made it much easier to support Kyle in his efforts to accomplish his homework.

2.2: We felt that the information covered was great, they covered a lot of different topics and my husband and I found it very informative.

4.2: I feel that the info was appropriate for the level of my son.

5.2: I feel it was very detailed! Well done considering the difference between students and parents. Perfect, some minor tweaks but that has to do with today's teens and technology! Phone foreign to some! Texting, Facebook, options!

6.2: I appreciated being able to follow what the teens were doing. The depth of the information was good. It covered major integration/socialization issues. The examples of what to say were helpful. It was smart to fit everything on one page.

7.2: The information covered in the parenting classes is great. It gives the parents the chance to revise what their kid's covering and if they need clarification it can be done at this time.

8.2: The information covered in the class provides a good framework to reinforce what the kids are being taught in their group. The parent handouts are useful because of the detailed breakdown they provide of each step.

9.2: Very helpful.

10.2: MISSING

11.2: It was very informal. We do tend to forget how many simple steps are involved in interacting. This program gave me a chance to break these steps down and help my son see where exactly he had the difficulties.

12.2: Overall, it was practical and useful, and provided solid foundational information for Liam. Plus, it was a good source of discussion starters for the parents. It also made me *much* more aware of some of the challenges that Liam faces regarding tasks I take for granted- like starting a conversation with a stranger- and gave me tools to better help him cope and understand.

2. **What parts of the PEERS program have been most valuable to you as a parent? (please be as specific as possible)**

1.2: The open communication amongst the parents was really beneficial. Learning from each other what worked for them is something that I have used to help my son.

2.2: The most valuable things we learnt from the program was how social situations or day to day conversations were broken down into a kind of check list like a step by step ,for us it comes naturally but for the teens it was very helpful to see it that way as a

4.2: Knowing what they are learning next door. The skill on how to join a group. The skills on how to handle disagreements. To identify a common interest for my son to share with a friend.

5.2: To me seeing, hearing I'm not alone when it comes to worrying about my child's future! Also hearing different tools - Program's- ways of handling situations as they arise. Also different opinions on subjects, bullying, school, friends. Gives me a different perspective.

6.2: The discussions that were sparked by the information and the opportunity to get other people's feedback was great! The parent discussions helped me to feel like my concerns were not crazy! I got many great ideas about how to deal with issues and how to see things differently. For example, figuring out how to encourage my child to be social while at the same time understanding and supporting his needs for alone time.

7.2: I think that 2 things were valuable. #1 are the hand-outs because we can refer to it during the week and it gives us material to discuss with our child. #2 are the fact that you ask us to monitor the phone conversation with our child made me realize what are the strengths and weaknesses of my child.

8.2: I have enjoyed the parent meeting and being able to discuss both challenges and options to facilitate problem areas. I also thought the structured called within the group were useful for the kids to practice social skills. It was after difficult to get my son to call friends and now he feels confident in doing so.

9.2: Meeting other parents like myself and I loved the calling within the group part.

10.2:

11.2: The most informational was the bullying portion.

12.2: Most definitely, the opportunity to share with other parents, hear about their own parenting issues, how they resolved them, and soliciting their advice. I think every parent in the group started off thinking this group was for the kids' benefit, but came to realize it was for our benefit too. The opportunity to dialogue with parents who have had similar challenges and hearing how they approached the problem was invaluable.

3. **What parts of the PEERS program do you feel have been most valuable to your child? (please be as specific as possible)**

1.2: I think that the part on how to deal with bullies was most helpful.

2.2: I think for my teen the most valuable lessons were the ones on using humor appropriately and at the right times which he has difficulty with. The other this was probably dealing with bullying, it was able to show him another way to handle situations.

4.2: The teasing module, and the disagreement module.

5.2: Confidence. M-J has been transformed! Understands he needs to get involved –he has used tools to make friends at school, a first! They are working on get-togethers during the xmas holidays. Also he has dropped some people from F.B using tools about being ignored! M-J made a friend at peers and she's a girl. This will help M-J! See it can HAPPEN! Just give yourself a chance, he now believes.

6.2: The consistent socialization and opportunity to role play helped him to learn to communicate in a way that was easier for people to understand him. He consistently asks questions of others to engage them and integrates into conversations. His "phone skills" are much better. He is getting close to being able to initiate, coordinate and finalize social plans without my involvement.

7.2: The weekly meetings where he actually gets to practice the skills he is learning.

8.2: As per the previous question, the social calls really helped my son become more confident about calling others. I also felt that he was very comfortable with the other kids and made some new friends. I feel he has become adaptable to different styles and he certainly looks forward to our meetings.

9.2: The phone calls.

10.2:

11.2: Knowing when to step in and also understanding when people laugh at you or with you. Also "tease the tease."

12.2: The opportunity to role-play with kids his own age in a non-judgmental environment where he would receive support, helpful feedback. We do a lot of role-playing with Liam, so the process isn't new to him. However, the aspect of the PEERS program that we felt was most valuable to Liam, i.e., learning how to make friends through starting conversations and becoming a better listener, is something he needed to experience with teens his own age, something which simulates much more what he might expect outside the home. Another aspect of the program that we through was beneficial is that it introduced Liam to kids outside his school with similar interests and issues, and allowed him to form friendships with them. Often school can be limiting in that respect, if only because the neurotypical kids outnumber the kids like Liam.

4. **If you could change anything about PEERS what would it be?**

1.2: I am not interested in changing anything about the program, other than the fact that 14 weeks would have been better than 7. I am grateful for having the opportunity for my son to take the course.

2.2: First I think that if we as parents had a chance to observe the teens during the groups ,I think it would of helped us know more about how they act in a social situation especially when were not around.

4.2: Allow for one session where parents could observe the kids group through a one-way mirror. To include all types of technologies for the phone calls i.e., not just the phone but Skype, voodoo, texting etc.

5.2: Definitely for a 16 year old, the games! Maybe switch to you pick a song, group music then my turn. M-J felt too old for this and we almost lost him, but Alley brought him back.

6.2: Make it stretch longer☺ Require more "in-group" calls. These were very helpful because they let the kids practice their skills in a safe environment.

7.2: Have it 1X/week not 2X, it is very demanding for my family…

8.2: I would suggest maintain the age variance to 2-3 years maximum so that establishing relationships with same age kids is enforced. Most kids on the spectrum tend to gravitate to older or younger kids but are challenged with same age peers.

9.2: I would make it longer and I would make the phone calls last as long as the program lasts.

10.2:

11.2: I would not change much. The program was excellent. I would only think about the end of the course giving a summary sheet of all the books and site that can be helpful for us in the future.

12.2: Continue with the in-group calls right to the very end. It gives the kids a sense of continuity and for some of them, like Liam, who may not speak with everyone, a chance to keep practicing. Between the two types of calls, it seemed like the out-of-group calls were harder to sustain, whereas the in-group calls were actually more challenging because many of the kids had no previous history with each other.

5. What do you feel you learned from being in the program?

1.2: I learned that simple tasks like making a phone call is really a complicated process. It requires actual courage to call someone you don't know. I also realize that the exercise was easier for Kyle since he didn't have to be distracted by trying to figure out what the person's body language was telling him as well as what was being said – it kind of forced Kyle to concentrate on what was said, process it, and respond accordingly.

2.2: We feel it was very helpful to hear how other parents handle situations that are similar to ours and it's always helpful to have a different perspective. I also learned that all the skills acquired must be practiced for it to become more natural for my teen.

4.2: How to cue-in to my sons indicators that he is having trouble with skills. I learned that perhaps I cue him too much.

5.2: To listen Ha Ha! My way isn't the only way! I'm lucky other parents have it a lot tougher than I. My worried feelings are justified I'm not alone! And can always go back to the tools if need be with my son!

6.2: (1) How to comment more effectively with my son. (2) I am not alone in my worries! (3) How to better encourage my son to make plans (4) How to breakdown social situations to make them more understandable (5) My son isn't as unusual/different as I thought.

7.2: I've learned how complicated it can be to make proper contact with others and that there is lots of steps in different approaches. I've also learned to take it step by step with William. It is not easy for him to behave in an appropriate manner.

8.2: I learned that there are a lot more people with children on the spectrum. I became aware of programs and resources I was not familiar with. I learned that it is ok to share you challenges and not be alone.

9.2: Giving him the tools he needs to have a conversation.

10.2:

11.2: I have learned that although my son struggles in some social skills, the program made me realize the specific areas.

12.2: Simply put, that many of the things I take for granted are not as easy for Liam as they are for us. Also that, as a parent, in some regards I need to be more patient with Liam and do a better job of "coaching" him; in other respects, I feel I have come to understand Liam's potential much better than before and in specific areas need to encourage his autonomy by "doing less" for him.

6. **What things can you observe about your child that are different now from when you first started the program?**

1.2: Kyle actually realizes that he doesn't get "it" when it comes to same age peers in the real world – world outside of the Summit School crowd. He is starting to listen to my input and has the ability to have a real discussion with me.

2.2: We feel he is still impulsive but we also see he is trying to be more in control of his emotions.　　　My teen has also made wonderful friends with similar interests.

4.2: Improved phone skills and better negotiation skills.

5.2: Confidence. Talks to me about his relationships or lack of. He's calmer, change is no longer the end of the world. Breaking routine is fun.

6.2: (1) Calm in social situations (2) He seems more confident (3) He expresses himself more clearly (4) He seeks out companionship more (5) He hesitates less when he speaks to people and engages them in conversation (6) Less difficulty finding relevant topics of conversation and having back and forth discussions.

7.2: Not much because I've accepted that William doesn't have the needs for seeing friends at home. He does socialize at school. But at home he's more intimate.

8.2: My son appears happier, he no longer complains about being alone. At school he has begun to integrate more with peers and is more confident. He is no longer as quiet and actively participates.

9.2: Phone calls aren't stressful anymore.

10.2:

11.2: He is more attentive. Although he still struggles he knows where he is struggling now and shows he is paying attention as he looks at me and tell me what he should have done instead.

12.2: He's much more comfortable with the notion of having to use the phone, and he seems to have a better grasp of the social subtleties, although he still needs to work on applying what it is he has learned.

7. **What things can you observe about yourself that are different now from when you first started the program?**

1.2: I actually expect more from Kyle now than I did before in a weird kind of way. We have had some frank discussions on roles and responsibilities and how he has a part in the breakdown of communications with peers at school and with the family at home. Because I see how Kyle is realizing that the world does not revolve around him, I have more opportunity to ask him to help me – this is starting to lead to a bonding between us, on a different level than in the past.

2.2: I can't say that we feel we are different now that we have completed the program but we definitely feel we are better equipped to handle different situation that may arise in the future.

4.2: That I try to prompt my son less when in social situations to let him use his skills.

5.2: I'm a nicer person! My chip I carry was chiseled to a smaller size. I'm willing to join other parent club's with my son. No church basements for me!

6.2: (1) I am better able to explain social issues to him (2) I feel less anxious about him socially (3) I am less pushy about him making friends (4) I give better advice about how to speak to people.

7.2: I will probably push the get-together more with him. I will also after xmas find a "social group" for William to integrate.

8.2: I feel comfortable sharing my son's challenges and feel I now have a network of parents to reach out to in the future.

9.2: I really didn't understand how hard it is for him to make a phone call and have a conversation.

10.2:

11.2: With the breakdown of each step, I now know the specific areas to help him out.

12.2: We view Liam's actions and reactions in a different way, in as much as the insight we have gained about the complexity of human interactions and how friendship boding occurs surpasses what we originally *thought* we knew. It has given us more patience, and the vocabulary we use to explain things to Liam is more tangible and aligned with the handouts the participants received. This, above all, might be the most significant change in that we make fewer assumptions of "…he should know that…" because what is innate for us and that we do automatically represents an extra learning hurdle for Liam.

8. **Are you satisfied with the program, why or why not?**

1.2: Yes, I am and not at the same time. I would like the course to last longer and to continue with the exercises in friendship. I really think Kyle needs more of this type of course, maybe even a redo would benefit him.

2.2: Yes we were very satisfied with the program and we gained a better understanding on how difficult it can be for some teens in social situations, and we feel the program was really able to break that down for so we can help our teens

4.2: Yes, I enjoyed the 2X/week format. I think I learned that my son can be more shy that I thought.

5.2: Yes. Ran like clockwork. Professionally fulfilled all my expectations and has helped my son grow heaps.

6.2: Totally satisfied. The discussions with the parents was totally helpful. I want to stay in touch with most of them.

7.2: Yes, very satisfied. I wish that like I've said before, we would have had more time to discuss the handout with our child before having another meeting.

8.2: I am very satisfied with the program it has had a far greater impact on my son than I ever thought possible. Even though the program was only 7 weeks long it was far more effective and well facilitated.

9.2: Yes, I am satisfied. My son has the tools now to socialize.

10.2:

11.2: Yes, very, very, very. This was a very informative program. The fact that we all had a voice, and listened to each parents; we understood each other's struggles, and challenges we all face. Loredana and Stephanie were great. You have given us so much, much more than you can imagine.

12.2: Absolutely satisfied! The facilitators, Stephanie and Loredana, were engaged and knowledgeable; the parents shared readily; the kids had a great time! More importantly- we see a difference. Liam gained valuable (and noticeable) conversation skills and basic social rules to follow. The program was presented in a way he could understand the "how" and the "why."

9. **How did the fact that we met twice a week fit with your family schedules and priorities?**

1.2: I am used to running for the kids, so the twice a week really didn't have too much of an impact.

2.2: Scheduling was not an issue for us, however if we would have met once a week instead of twice we would have had more time to practice what was learned in the group.

4.2: Great! Kept us focused on the curriculum.

5.2: Tuesday travel tough- Sat morning rough- But it was great! Once a week not enough 3 times too much.

6.2: That was really difficult and didn't give enough time for practicing new skills. Everything else in my life had to be put on hold to do this program. While being so condensed made me focus on my son more, it was stressful to commit so much too in such a concentrated manner.

7.2: Well, we've made it a priority when we decided to register in this group, but William hasn't had a chance to go anywhere or join any activity because of these 7 weeks.

8.2: It was a challenge because of my travel, I would think that once a week would be easier. At times, it was hard to get the "homework" done in time for the following meeting.

9.2: It wasn't always easy but I would definitely do it again.

10.2:

105

11.2:

12.2: Admittedly, it was a bit hectic at times. However, the continuity and frequency was very helpful for Liam and, I also believe for the other kids, so I'd tend not to deviate from meeting twice a week. As far as being a priority, attending the group trumped everything else and we made it a point to be there every week, since we knew the number of weeks was limited.

10. Is there anything else you would like to say about the program that was not covered in the questions?

1.2: I was just wondering if the dynamics of the group would have been different if some of the kids didn't already know each other – if in fact there may have been some delay in acquiring skills if there had not been the familiarity of established relationships. I also wonder if age and maturity have a part to play in the ability to actually get the most benefit from the course. Because of the age difference in the kids, and maturity level, I would like to know if there would be an ability to group the kids by "type" and then measure their level of actually getting "it". Lastly, does intellect play a part in the success of a child in socialization – by this I mean someone on the high level of intelligence versus someone of slightly lower intelligence?

2.2: We loved the experience and so did our teen if we could change something we would probably like it if it would continue on a biweekly or even monthly so that the lessons can be reinforced.

4.2: I would have liked feedback after each week to know if my son appeared to be participating/learning during the session.

5.2: Thank you! All stat's info aside you have helped my family and I will always be in your debt. (dad signature). Thank you for your help, this helped Michael-James a great deal. Very grateful. –Sophie (sister).

6.2:

7.2: Not sure if you could do anything about it but some parents don't respect when others speak. It should be clearly stated at the beginning of each sessions.

8.2: I think Loredana and Stephanie did a really good job facilitating each group. Discussions were well managed and focused on the topic.

106

9.2: I wish it was longer. These kids would be even more successful if they had more time to practice with each other.

10.2:

11.2:

12.2: The program brought together not only the kids, but also the parents. We shared a lot, and there's something to be said when you're amongst a group of people who "get" what your child is about. It's reassuring. It's empowering. It's unifying. At the start of the program, I recall saying to Liam that if you look hard enough you'll always find like-minded people who share common interests and challenges, and that we just so happen to be lucky enough to have them here in one room. Ditto for the parents. The other thing about the program is that it made me realize just how special this group of kids is. They're very intelligent, incredibly funny, and unbelievably compassionate-and there is no such thing as too much kindness in this world.

PEERS Follow-Up Questionnaire T3

1. **What were your experiences with your child following the PEERS program?**

   1.2: The group provided opportunity to speak with my son regarding expectations with friends. Specifically, what is a good friend, both him and those he chooses to hang with.

   2.2: I think he is a littler calmer and is learning to deal with others without overreacting, but still does but we see he is trying to use some of the strategies he has learned in the group.

   4.2: All positive. My son made new friends and solidified others. Learned skills to maintain friendships. I made new connections with parents.

   5.2: He contacts a few of the kid's via Facebook, has gone to movies with one, and her friends, seemed to fit in easily.

   6.2: Jacob has been mostly great since the PEERS program. Since coming back from Xmas holidays we have been focused on school because he had exams. He seems more socially aware and discusses social interactions with more detail. He is better at making social plans and actively initiates making plans.

   7.2: Nothing much changed until 3 weeks ago when he decided to invite (on his own) a school friend over. This friend came twice to the house.

   8.2: Although my son still has to be prompted to call others, he does enjoy speaking on the phone with friends when they call and when they get together.

   9.2: I saw that he wanted to have a get-together. I have to tell him you should call a friend or else he won't do it.

   10.2: She was happy she made a new friend/friends.

   11.2: Although we are almost complete our home renovation, it was difficult to invite people over, but has gone to others house. The program helped as it made me realize key indicators to look for in order to help me child.

12.2: Liam is more at ease and willing to answer the phone. His telephone conversations are less stilted and he is able to banter back and forth more easily. Uses social cues such as "how are you" during conversation.

2. **How has the experience of maintaining and practicing the skills learned in PEERS during the past 7 weeks been for you and your child?**

1.2: Gives my son a formula to follow so that he is better able to communicate the details in order to organize a get-together.

2.2: We have used some of the lessons and it's been easy to maintain and to practice.

4.2: I keep the handouts near my desk at home and when I see my son struggling with a known skill I refer to it and show the papers to him.

5.2: He needs to be reminded to contact the others. Made friends at school which is good.

6.2: He talks about what he learned. It sensitized him to notice more about how people treat him and how he interacts. He consistently spends time on Facebook communicating with people.

7.2: William has no interest of practicing those skills.

8.2: I have found it relatively easy to maintain the skills with my son and refer to the material (handouts) as needed.

9.2: He practices the skills learned when he calls a friend. He know what to say, the problem is everything is kept short.

10.2: Hard due to her school schedule and exams and in a play.

11.2: Like mentioned the program was very educational and helpful, but constant repetitive between the 7 weeks was noticed, which is normal for children with learning disabilities, but happy to know how to communicate the information to the child better.

12.2: It hasn't been difficult as Liam really absorbed a lot of knowledge and we continue to discuss topics covered in the course and role play.

3. **Have you noticed any changes in your child since the end of the program? Explain.**

1.2: My son has regressed over the Christmas holidays. Something that happens yearly, so I am unable to comment. Usually, he does make gains in his development-behaviors and comprehension in February.

2.2: Things are a little easier but he is doing better, but he is still very inconsistent.

4.2: Wants to see friends more often.

5.2: He seems much more confident and happier.

6.2: He seems more natural. He's more receptive to changing his behavior when someone mentioned that they don't like something. He seems more confident to talk to people.

7.2: Like I mentioned in #1, I did see a change in the last 3 weeks.

8.2: My son appears more confident and self-assured than before. I think he benefitted from meeting others in the group and has maintained contact.

9.2: He wants to get together with friends whereas before he was happy home alone.

10.2: Not as afraid to call her friends.

11.2: Yes, he is aware of what wrong actions he took, although he did the mistake he is able to know on his own what he did wrong, with only minimal help from me.

12.2: Communication skills have improved with peers and outsiders.

4. **How is your child coping in social situations? (i.e., stress levels, comfort levels, conversation, etc.)?**

1.2: Socially I have noticed that my son does not really fit anywhere yet. He does not fit well at school or in his extra-curricular activity. School→ he has become a joker and outside school he has issues understanding how to fit. I see all of this as a growing-up experience whereby he is challenged to raise his level to become more serious and focused-to restrict the joking to appropriate times and places.

2.2: He still has a hard time in social situations but we feel he is less stressed at school and at home.

4.2: Still not comfortable with initiating conversations especially in a group setting.

5.2: He seems to be more in control, mange the stress better.

6.2: I don't know if this has changed but Jacob seems more comfortable about being alone and doing what he wants to do. He eats lunch generally with the same people. At ski lessons these are kids that talk to him. He is happy to try to talk with new people now.

7.2: My son, I don't think, has a stress level in social situations. Since I don't see him in a lot of situations, it's very hard for me to say. He was always more comfortable with adults and that remains the same. He says that he doesn't like to have a lot of people over and I respect that.

8.2: His social interactions with peers appear more flowing and normal but he is still shy when socializing with adults.

9.2: I can tell he likes the interactions, but it has to be short. He still needs practice on how to tell someone to stop what they are doing if he doesn't like it. Stress level is low, comfort level is to keep it short. Conversation is usually always the same.

10.2: Shy at first but does enjoy get-togethers with them.

11.2: This will be a long road for him, I am happy that he realizes now with minimal help from me, where he went wrong and I help him on how to make it right. This for me is a big step for him, and confident in time, a bigger change will be noticed.

12.2: He is still shy and reluctant to approach kids he doesn't know well. He waits for them to make the move. In a supervised setting he does better.

5. **What do you worry about in terms of socialization and friendships for your child?**

1.2: I worry he will not "get it." Currently, he is under a lot of pressure to behave and act as a neurotypical teen. He is physically older and expectations are that he is more capable than he really may be. We have also become more strict at home, so that he can be better prepared when he is in public.

2.2: He still has a hard with certain people and he is still very inconsistent and we never know what will trigger his anxiety and his overreactions. That's what worries us, we can't figure out what triggers his outburst so he can be unpredictable.

4.2: Is he happy in a group, is he being teased and unable to tell us about it?

5.2: Our worries have diminished but are still there (will always be).

6.2: He still has not made a new friend in his class. He has a hard time making new friends. I worry that some of his friends might surpass him socially and he will be lonely again.

7.2: I don't worry about my son's socialization and friendships. I came to realize that he is at most comfortable when he is home. It doesn't stop him to talk to us when needed. I also don't want to alienate him against me, so I don't push anymore.

8.2: I worry that he still limits much of his social interaction at school to when he eats his lunch and not the entire lunch period. Once he finishes he goes to the library to read.

9.2: At school, he still hasn't made any friends. He is an observer. This worries me. Maintaining a friendship is hard for him.

10.2: Always use to think she was bothering people. Hope she doesn't feel like that any longer.

11.2: What I worry about is that he has my help now, but when he will be on his own, no one will be there to guide him, making it really important for us to work with him now.

12.2: As he goes into grade 9 he will be surrounded by older students- how will he adapt? He is a little less mature than his peers, and his interests are still fairly narrow, so he struggles connecting with other kids.

6. **Is there is anything you would like to mention that has not been covered in the questions?**

   1.2: I would very much like another session of PEERS for my son. I believe he needs to repeat some of the sessions to better help him retain the skills, especially in regard to what is a friend.

   2.2:

4.2: The best part was the parental participation. I would have liked to see the kid's group in action (through a one-way mirror?) once.

5.2: The program has helped our family a lot, great program. Thank you!

6.2: Although this is certainly a secondary aim of the PEERS program, the parents group was actually pretty successful, I think as a parent group and social club.

7.2:

8.2: I think the program was extremely beneficial, my son and I learned a lot about how to enhance his social skills and made new friends with similar challenges.

9.2:

10.2:

11.2: No, although the program was condensed to 7 weeks, we got a good understanding and an excellent training from Loredana and Stephanie. The program gave us a very good solid foundation to begin with but maybe longer one could have gave us better long term results for the child, as they need more time to understand situations when they have learning disabilities. I was extremely happy on the seven week program, and completely satisfied on all the information passed on to us to help our children. The staff did an excellent job and were very structured and if this course were to be given again or a follow-up course would be available I would be more than happy to participate again. Thank you once again for helping us help our children, and the excellent job that Loredana and Stephanie along with the rest of the staff did. Thank you.

12.2 Overall, the group was a positive experience and Liam has been helped in a very tangible way. It has also helped us, as parents, to better understand the complexity of issues Liam faces.

Table 13

Mean Difference Scores of Social Skills and Problem Behaviors on SSIS-RS Student (n =
11) and Parent Forms (n = 11) Using Standard Scores

	M	*SD*	*t*	*df*	*p*
Social Skills					
Student Pre- Post-test	-2.73	10.7	-0.70	10	0.49
Student Pre- Follow	-11.0	10.15	-3.59	10	0.01**
Student Post-Follow	-8.72	11.96	-2.41	10	0.03*
Parent Pre-Post-test	-2.09	5.90	-1.74	10	0.26
Parent Pre- Follow	-0.45	5.53	-0.27	10	0.79
Parent Post- Follow	1.63	5.06	1.07	10	0.30
Problem Behaviors					
Student Pre- Post-test	2.63	14.75	0.59	10	0.56
Student Pre- Follow	10.90	10.32	3.50	10	0.01**
Student Post- Follow	8.27	7.68	3.57	10	0.01**
Parent Pre- Post-test	3.27	10.1	1.07	10	0.31
Parent Pre- Follow	5.18	12.68	1.35	10	0.20
Parent Post- Follow	1.90	7.89	0.802	10	0.44

Note: M = mean; *SD* = standard deviation; *df* = degrees of freedom.
*p ≤ .05; **p ≤ .01