

# Social Competence in Children with Learning and Autism Spectrum Disorders

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## ABSTRACT

**Objective:** The present study has been carried out to compare the social competence in two groups of students with Autism Disorder (AD) and Learning Disorders (LD).

**Methods:** This research was a kind of descriptive research with 2 comparative groups. 90 learning and Autistic disorder students aged 10 to 13 years (45 LD & 45 AD) were selected randomly as a statistical sample. For the assessment of social competence, Felner 4 dimensions Social Competence Test (SCT) has been used. This test has 47 Items with 4 subscales. The data were analyzed using T-test.

**Results:** The results revealed that social competence mean scores of learning disorder students were significantly higher than those of students with autism disorder ( $P < 0.0005$ ). In addition, the mean scores of girls were significantly more than that of boys in both groups.

**Conclusion:** Findings confirm that autistic students have not reached social competence, because of theory of mind and executive function impairments and students with learning disorder have poor social competence, because of impairment in social interpreting and poor academic achievements.

## 1. Introduction

Social competence is an ability to take another's perspective concerning a situation and to learn from experience and apply that learning to the ever-changing social landscape (Semrud-Clikeman, 2007). Social competence is the foundation upon which expectations for future interactions with others are built and upon which children develop perceptions of their own behavior (Shah & Morgan, 2010). Social experiences are connected to emotional competence and present with appropriate emotional function (Shewchuk et al., 2005).

The concept of social competence frequently encompasses additional constructs such as social skills, social communication, and interpersonal communication. Social skills assume that these are behaviors that are repeatable and goal-directed (Spitzberg, 2003). Social interaction assumes that the goal can be accomplished

through interaction with another person using language and nonverbal communication. These skills are also thought to be goal-directed. In addition to behaviors, social competence requires correct perception of the social interaction (LaFreniere & Dumas, 2012). This perception also encompasses motivation and knowledge on how to perform the skill. Without appropriate perception the motivation and ability to do the skill will not result in socially appropriate actions (Kopp et al., 1992).

Social experience rests on the foundation of parent-child and peer relationships and is important in the later development of prosocial behaviors. Attachment of an infant to the mother is important for the development of later social competence (Speltz et al., 1999; van Ijzendoorn, 2011). This attachment helps the infant to learn that the world is predictable and trustworthy. The foundation of the attachment bond allows the child to venture out from his/her mother to try new experiences and new interactions. Dodge (1986) conceptualizes social

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competence as an interaction between the environment and a set of biologically determined abilities. These biologically determined abilities may partially account for social difficulties frequently experienced by children with developmental disorders. There is sufficient empirical evidence that links social competence to mental and physical health (Spitzberg, 2003). It has been linked to disorders such as anxiety, cardiovascular disease, juvenile delinquency, and substance abuse, to name a few (Renwick & Emler, 2013).

Voeller (1994) hypothesizes some clusters of problematic behavior that often lead to impairment in social competence. One of those diagnostic clusters consists of children who do not perceive their environment appropriately and who interpret interpersonal interactions inaccurately. These children have difficulty reading social cues, facial expressions, and body gestures. The most common diagnosis is autism spectrum disorder and LD.

Children diagnosed with autism show significant impairment in social interaction including problems with eye contact and nonverbal understanding and difficulties with social reciprocity (Baron-Kohen, 2011). Theory of mind hypothesis is frequently used to describe the social problems found in children with autism disorder. Particular difficulty in understanding the mental state of another person interferes with the child's ability to construct a world that is social and in which the child is able to understand how people differ in beliefs, desires, and needs (Baron-Cohen et al., 2010).

An additional area of interest for social competence is the difficulty children with autism have with sharing their feelings with others. Children with autism have been found to display fewer emotional responses, difficulty producing positive affect and often show higher levels of negative affect when engaged in play than children without autism (Snow et al., 1987). Emotional recognition in autistic children is another area that is particularly interesting and important for social competence (Chudley et al., 2010). Many studies showed that, reading, imitation and interpretation of the facial expression is more problematic in autistic children (Henry et al., 2006)

LD has been defined in many different ways. In some literary texts, LD refer to problems in any one of seven areas of learning including; listening comprehension, expressive language, basic reading skills (word identification, phonological coding), reading comprehension, written language, mathematics calculation, or mathematics reasoning (Phaf & Kan, 2008). Many children may experience difficulties in more than one area as well as having

difficulties with attention, emotional adjustment, and/or behavioral problems (Lyon, 1996). The majority of children with a LD have difficulties in reading with many of these also experiencing difficulties with written language (Verhoeven, & Leeuwe, 2008). Reviews of the literature indicate that approximately 75% of children with LD also experience problems with social skills (Kotzer & Margalit, 2007). Stone & LaGreca (1990) believed that social skills impairments may worsen academic performance and provide additional impetus for referral.

Some studies have found that these children showed milder learning problems and were in full inclusion settings. In contrast, others have found children with LD to be rejected and/or neglected (Shattuck, 2006). Similarly, children with a LD have been found to be lonelier (Margalit & Levin-Alyagon, 1994) and to have fewer mutual friends than those without LD (Tur-Kaspa, 2004). Findings were consistent from the overall meta-analysis with 75% of the LD found to be rated as having social skill problems by both teachers and peers. Children with LD rated them more negatively than did their peers or teachers. Kavale and Forness (1995) further evaluated the nature of these social competence problems. Teachers indicated the most significant areas of problems were in the areas of academic competence and interacting less frequently socially compared to children without LD.

## 2. Methods

### Participants

Statistical population of this research was all of students aged 10 to 13 years with Spectrum autistic disorder and Learning disorder that were studying in the schools (more than 50 schools and rehabilitation centers) for autism and learning disorder in Tehran. 90 students (45 A.D and 45 L.D) were randomly selected from a larger community as samples for the current study.

### Measures

For the assessment of social competence, 4 dimensions of social competence test have been used. This test has 47 Items with 4 subscales. The reliability of this scale was estimated 0.88 and its validity has been reported 0.99 and confirmed by specialist users. Because of reading impairments, the social competence test was completed by parents or teachers for all of the participants.

The gathered data were analyzed using T-test. The results have shown that all hypotheses of this research were accepted (Table 2). That means results revealed

**Table 1.** Mean and standard deviation of participant (A.D and L.D) using independent variables.

Social Competence	Participants	Mean	S.D
Behavioral skills	A.D	121	16.34
	LD	132	19.43
Motivational skills	A.D	21	4.04
	LD	25	6.1
Cognitive skills	A.D	13	2.51
	LD	15	3.81
Emotional skills	A.D	14	3.69
	LD	16	2.49

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that social competence mean scores of LD students were significantly higher than the mean scores of students with AD in  $P < 0.0005$  (Table 1). In addition, the mean scores of girls were significantly more than those of boys in both groups.

### 3. Results

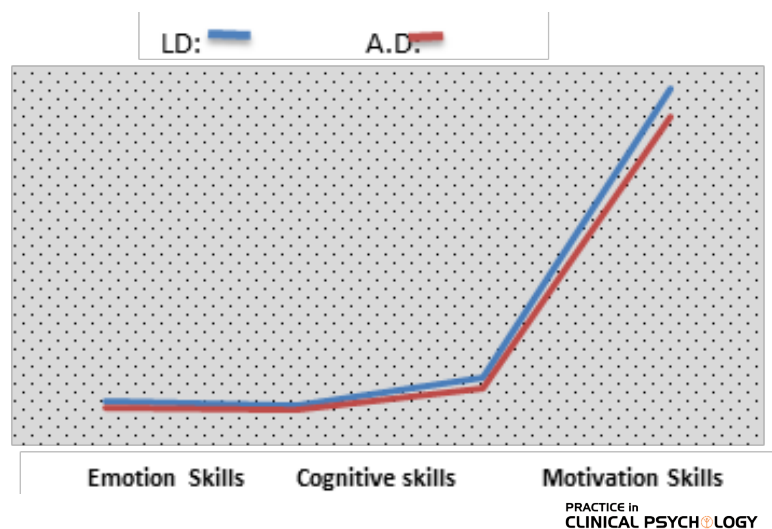
Table 1 demonstrates mean and standard deviation of participants in the social competence subscales. As you see, mean scores of the students with learning disabilities, is higher than the autistic students in all social skills variables.

The table summarizes the results of T-test to determine the relationships between social competence variables. Table shows that groups' performance in social competence subscales. As seen the F-ratio for the all subscales was statistically significant ( $P < 0.05$ ) and for main (social competence skills) was statistically significant in ( $P < 0.001$ ). The results have shown that all of the stu-

dents with autism are significantly impaired in all social competence skills.

### 4. Discussion

The aim of this study was to compare the social competence in two group students with Autism and LD and finally to investigate their deferent in social capability and social communication in social contexts. The results of this study showed that social competence means scores of students with LD were significantly higher than the mean scores of students with autism disorders (Figure 1). As can be seen in Table 2, all students with autism are significantly impaired in all social competence skills. Behavioral Skills ( $P < 0.019$ ), Motivational Skills ( $P < 0.000$ ), Cognitive Skills ( $P < 0.000$ ), Emotional Skills ( $P < 0.033$ ) and sum scores in social competence skills ( $P < 0.000$ ). It seems that autistic students are poorer in some social competence skills such as motivational and



**Figure 1.** Overall performance participants (AD and LD) in Social Competence subscales.

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**Table 2.** Results of T test in two groups (AD and LD) on Social Competence subscales.

Social Competence	F	Sig	t-test	df	Sig-2
Behavioral skills	1.09	0.219	-2.21	88	0.019
Motivational skills	4.83	0.59	-4.18	88	0.000
Cognitive skills	2.22	0.021	-1.53	88	0.000
Emotional skills	0.388	0.907	-2.011	88	0.033
Social competence skill (Sum)	3.89	0.62	-3.32	88	0.001

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cognitional compared to behavioral and emotional skills. We are going to discuss this difference.

The majority of psychologists suggest that, social interaction or higher social competence, is the most important feature of the development. Social competence is the long-life capability which makes children have mature and adjusted behaviors with peers and others in social settings (Capps et al., 2010).

Reviews of the literature indicate that children who are diagnosed with autism show significant impairment in social interactions have problems with eye contact, non-verbal understanding, difficulties in double interaction and social reciprocity, make or initiate communication, delays in spoken and receptive language, stereotyped and echolalia speech, and difficulties with playing with both peers and individually. Children diagnosed with autism show a narrow pattern of behavior and interests, have repetitive behaviors, become preoccupied with objects and items, also have difficulties understanding other people's mental state and how people differ in beliefs, desires, and needs (Shattuck, 2006). In the following, we are going to describe the different results in two LD and AD groups.

According to Baron-Cohen et al. (2010) and others, autistic children problems are fundamental (theory of mind and executive function) and directly related to brain structure and neurodevelopment while children with LD do not have any fundamental problems that their autistic peers have. But their problem is just functional (reading, writing, calculating, etc.) and limited to school time because of poor training and poor academic achievements (Ozonoff et al., 1991; Razza & Blair, 2009).

Crick & Dodge (1994) have developed a model about social functioning. According to their model, social functioning includes five steps: encoding, interpretation and representation, goal selection, deciding on the response to take and completing the selected behavior. Based on Crick & Dodge (1994) it seems that autistic children have serious impairment in all factors of Crick & Dodge

model while children with LD often show problems in interpretation and representation. Children with learning disorders have been found to show problems with the interpretation of emotions and the correct labeling of emotions from facial expressions (Sprouse et al., 1998). In addition, children with LD have been found to require additional time to process facial expressions.

Bryan (1997) evaluated, children with LD utilizing the first two steps in Crick and Dodge's (1994) model. She found that LD had more difficulty encoding social cues and were less able to understand and interpret social cues. Like past studies (e.g. Baron-Kohen, 2010) this study findings confirm that autistic students have not reached social competence, and students with learning disorder have poor social competence because of theory of mind and executive function impairments, and because of impairment in social interpreting and poor academic achievements. This study as other reports had some limitations related to test completion by patient's parents or teachers because of patient disability in reading test items making it likely to be biased. Finally, this study suggests that AD students need social competence training program more than other peers, especially in emotional and cognitive skills because of social impairments. Also based on the importance of social competence in socializing and academic achievement, it is recommended that social skills course or the training program be administered and be part of the academic schedule.

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