

# Comparison of Social Support and Self-Injurious Behaviors in Students with and without Learning Disabilities

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## Abstract

**Background:** Students with learning disabilities, in comparison to normal students, have relatively more problems.

**Objectives:** The aim of the present study is to compare the social support, aggression and self-injurious behaviors in students with and without learning disabilities.

**Patients and Methods:** All students with and without learning disabilities from secondary schools of Ardabil, Iran constitute the research population. Sixty students were randomly selected by cluster sampling. Raven's IQ Test, Social Support Scale, Aggression Questionnaire and Deliberate Self-harm Inventory were utilized for data collection. The MANOVA test also was applied for data analyzing.

**Results:** The results of the present study indicated that students with learning disabilities, in comparison with normal students, have a inferior perceived social support and a higher rate of aggression as well as a higher self-injurious behavior. Analyses of regression also delineated that social support, physical aggression and verbal aggression can predict self-injurious behaviors in students with learning disabilities.

**Conclusions:** Low social support and high aggression are two important factors which affect self-injurious behaviors in students with learning disabilities.

**Keywords:** Social Support, Self-injurious Behavior, Learning Disabilities

## 1. Background

Learning disability is a kind of disturbance in one or more psychological processes essential for the use of language, speech and writing (1). It can increase the risk of a wide range of mental and social problems (2). One of the variables which can help students with learning disabilities is the feeling of social support. Based on studies, social support deprivation is related with anger and aggression in ones childhood (3) and mental health problems in adulthood (4). Self-injurious behavior is also one of the most prevalent reactions amongst students with learning disabilities (5). Based on studies, the prevalence rate of self-injurious behaviors in learning-disabled students ranges from 1.7% to 24% (6). Not only self-injurious behaviors but also the risk of participating in aggressive behaviors is more apparent in students with learning disabilities than in normal students (7). As it has been reported, physical aggressive behaviors toward others exists in 3.9% of mild learning disabilities, in 9.1% of moderate learning disabilities, in 11% of severe learning disabilities and in 17.4% of profound learning disabilities (7). Based on what was mentioned, doing comparative studies such as the present study can highlight the role of specific factors, which participate in generating, intensifying or even the treatment of learning disabilities.

## 2. Objectives

The aim of the present study was to compare the social support, self-injurious behaviors and aggression in students with and without learning disabilities.

## 3. Patients and Methods

All students with and without learning disabilities from secondary schools of Ardabil, Iran (in the 2013 - 14 academic year) constitute the research population. The first method was the use of multi-stage random cluster sampling from each educational district; four schools (two male and two female schools) were selected. Next, from each school, two classes were selected. Sixty students were in doubt to be diagnosed as learning-disabled; therefore a clinical interview was carried out on each student separately to obtain a definitive diagnosis of learning disabilities. Raven's IQ test was also applied to ensure the normal IQ of all the students (scores 85 - 115). Finally, 30 students (15 male and 15 female students) were recruited as a final sample of students with learning disabilities and 30 normal students were also recruited and matched in order to compare to the first group. The following questionnaires were applied:

### 3.1. Social Support Scale

This scale was constructed and validated by Thameni (1995) using the factor analysis method. The scale has 28 items. Based on Zahiri, Nav and Rajabi, the instrument has a good reliability and validity in Iranian cases (8).

### 3.2. Deliberate Self-Harm Inventory (DSHI)

Deliberate Self-Harm Inventory (DSHI) a self-reporting instrument consisting of 16 descriptive items about a wide range of prevalent deliberate self-harming behaviors. Gratz has reported that the inventory has had a high internal consistency as well as a convergent and discriminant validity (9). In Iran, the translated version of the questionnaire demonstrated an acceptable reliability and content validity as well (10).

### 3.3. Aggression Questionnaire (AQ)

Aggression Questionnaire (AQ) has been revised by Buss and Perry (1992) and has 22 items and four subscales, including: physical aggression (PA), verbal aggression (VA), anger (A) and hostility (H). This questionnaire is extensively being used in Iran and is also relatively valid (11).

## 4. Results

Participants were from 14 to 16 years of age with their mean and standard deviation being 14.61 and 0.69, respectively. In the social support variable, the mean for normal students was 96.46 and for the students with learning disabilities their mean was 88.53; in self-injurious behaviors, the mean for normal students was calculated as 16.46 and for students with learning disabilities was 21.66; in physical aggression, the mean for normal students was calculated to be 22.46 whereas for students with learning disabilities, it was 28.43; in verbal aggression, the mean for normal student equaled 20.93 and for students with learning disabilities it was 27.26; and in IQ, the mean for normal students was 105.40 and for students with learning disabilities, it was 104.73.

Before using parametric tests, for considering the main assumptions, Box and Levene's test was utilized and the homogeneity assumption of variance/covariance was regarded. Significance levels of all tests permitted application of the MANOVA test. The result of Wilks' lambda indicated that the effect of groups on social support, aggression and self-injurious behaviors was meaningful (Wilks' lambda = 0.656,  $F = 7.20$ ,  $P < 0.001$ ); this result denoted that there was a significant relationship amongst social support, aggression and self-injurious behaviors in students with and without learning disabilities.

As it can be observed in Table 1, the MANOVA result showed there was a significant difference between normal students and students with learning disabilities; in other words, although students with learning disabilities did not get higher scores in social support, they showed higher scores in self-injurious behaviors and aggression.

**Table 1.** Results of MANOVA Test to Compare the Variables in Normal Students and Students with Learning Disabilities

Variable	df	MS	F	P	ES
Social support	1	944.06	8.93	0.004	0.133
Self-injurious behaviors	1	405.60	23.71	0.001	0.290
Physical aggression	1	534.01	8.20	0.006	0.124
Verbal aggression	1	601.66	8.99	0.004	0.134

Abbreviations: df, degree of Freedom; ES, Effect size; MS, mean square; P, P value.

To determine the effects of each under-studied variable on the variance of self-injurious behaviors, we entered social support, physical aggression and verbal aggression into the regression model as predictor variables. Moreover, self-injurious behaviors were assigned as the criterion variable. As Table 2 shows, the observed F was meaningful and 14% of the variance of self-injurious behaviors can be explained by social support, physical aggression and verbal aggression.

## 5. Discussion

In line with some previous studies (2, 3, 12), the results of this study indicated that students with learning disabilities have a poorer perceived social support than normal students. Generally, it could be inferred that having academic failures or labeling and extra-help acquisition results in some weaknesses in different fields. This implies that they find themselves somehow different from other children and the same matter increases their feeling of loneliness and interferes in their social relations (12). Based on another finding in this study, students with learning disabilities are more aggressive than normal students. This finding is also in concordance with other studies (3, 7). Brosnan and Healy (13) believe that students with learning disabilities have more aggressive behaviors, mainly due to obtaining parents' regards, reinforcements and gaining the desired privileges or sometimes avoiding unpleasant situations. Nevertheless, it can be inferred that because of their inability to recode non-verbal signals in social interactions, students with learning disabilities gain the least amount of positive profits in social relations (7). This study also showed that self-injurious behaviors are more prevalent in students with learning disabilities (3,

**Table 2.** Coefficients of Predicting Self-injurious Behaviors Based on Social Support, Physical Aggression and Verbal Aggression

Predicting Variables	Non-Standardized Coefficients			$\beta$	t	F	R <sup>2</sup>	P
	B	SE						
Constant	22.487	7.350		-	3.059	4.29	0.144	0.003
Social Support	-0.086	0.064		-0.193	-1.334	8		0.188
Physical aggression	0.177	0.098		0.311	1.817			0.075
Verbal aggression	0.001	0.104		0.001	0.008			0.994

Abbreviations: B, unstandardized partial regression coefficient;  $\beta$ , Standardized partial regression coefficient; t, t tests to assess the significance of individual B coefficients; SE, standard error.

7). In Remaschi's opinion, sometimes children utilize self-injurious behaviors as a strategy to control unpleasant affections, while in other times they do so because of self-addressed anger, which originates from the child's incapability to perform duties (14). In addition, the results of regression analysis showed that social support, physical aggression and verbal aggression could predict self-injurious behaviors in students. It means that low social support and high aggression are two important factors which affect self-injurious behaviors in students with learning disabilities. Using these findings can help parents and teachers solve the problems of these children and prevent their academic failures, which is one of the greatest harming causes to educational system in large.

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