

Investigating the Relationship between Self-Esteem, Assertiveness and Academic Achievement in Female High School Students

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Abstract

Introduction: Adolescence is a stage of development. Confidence is the emotional aspect of personality, which can impact the individuals' job performance, educational achievement, and efficiency. This study aimed to investigate the relationship between self-esteem, assertiveness and academic achievement in female high school students.

Method: This is a descriptive study which was conducted on 701 female high school students aged between 14-17 years. Data collection was done by applying Demographic information form, Coppersmith Self-Esteem scale, and Gambrell and Ritchie's assertiveness questionnaire. T-test was used to investigate the relationship between the students' assertiveness and demographic variables such as students and parents' age. ANOVA test was applied to examine the relationship between the students' assertiveness and academic achievement. Chi-square examined the association between the number of children and self-esteem, in addition to the relationship between academic achievement, the number of children, and finally the students' assertiveness and self-esteem. Data were analyzed in SPSS using T- test, Chi-square, and ANOVA.

Results: Data analysis showed that the prevalence of low self-esteem and assertiveness was 16% and 13.8%, respectively. A significant correlation was found between assertiveness and academic achievement ($p \leq 0.001$), assertiveness and birth order ($p: 0.006$), and finally self-esteem with assertiveness ($p \leq 0.001$).

Conclusions: There is a correlation between self-esteem, assertiveness, and academic achievement. Therefore, it is crucially important to gain and promote the level of assertiveness amongst adolescents to protect them against the factors threatening their health.

Keywords: Self-esteem; Assertiveness; Academic achievement; Student

Introduction

Adolescence is the period accompanied by great changes. These changes lead to an alteration in the perception of the world. During adolescence, the emotional fluctuations are considerable. The confidence can be affected by increasing social support. Self-esteem is a holistic factor influencing life orientation [1].

Self-esteem is an important concept during adolescence. It is important for them to have an interaction with other teens as it results in the confidence growth and development [1]. The confidence is an evolved attitude about one's character [2].

Identity perception requires psychosocial contrast. In other words, an adolescent must create a harmony between his/her self-image and others' expectation. Every growth factor can cause the feeling of accomplishment in adolescents. The factors, including the supportive elements of the perception that he is distinctly different from others cause a reasonable stability and integrity which persists over time and guide him/her to get close to the notion which others expects him [3]. Many psychologists, such as Rogers et al., have talked about the "self" and "self-concept" [4,5]. For example, Rosenberg defines confidence as the personal feeling of self-worth [5]. Historically, confidence is based on two different theories. According to James, confidence is called "self- love", which is in connection with the individuals' desire and success [6].

If the proportion of success is equal to or higher than aspirations, the level of self-esteem will rise dramatically. The opposite is also possible. According to Cooley, confidence is determined socially which is similar to "looking-glasses self". By means of that people self-conception is the reflection of the way they are viewed by significant others [6,7].

Adolescents with less social support have less self-confidence. According to studies, girls are less confident than boys [6]. Rosenberg defines self-esteem as the positive or negative evaluation of the absolute value of one's own personality or dignity. Social support is an important factor in the formation of self-esteem during adolescence. The relationship between peers and parents with teens is well-established to improve their self-confidence [1]. Assertiveness is a communication method, i.e. the ability to express one's feelings, ideas, beliefs and needs directly, openly and honestly without violating others' personal rights [8]. Assertiveness is the quality of being self-assured and respecting others as well. They are neither passive nor allow others to abuse them. Moreover, assertive people are pursuing tactfully and respecting others' wants and needs. Those with poor assertiveness may be passive (low assertiveness) or aggressive (aggressive behaviors). Passive people do not allow others to violate their rights. They have always been concerned about being accepted and loved by others. On the other hand, aggressive people are those who violate others' right despite respecting their own rights. Promotion and acquisition of the assertiveness skill is vital for young people. Self-centeredness, independence, need to obtain the permission for entering the peer group and relieving the growth-related tensions are among the characteristics of this age period which makes them more vulnerable to health-related risk factors [9]. Decisiveness and assertiveness are of the most important and basic social skills which form the broad interpersonal and behavioral skill conception domain.

Decisiveness is an approach toward acknowledgement and preservation of self and others' dignity. In fact, the level of assertiveness can determine the state of confidence.

According to McFall and Goldsmith, low assertiveness leads to learning disabilities and decreased operating efficiency in students (forecast of 40% probability), while students with high level of assertiveness deal with fewer compatibility issues and less loneliness. They are along with more academic self-efficacy [10,11].

It seems that people are not that high assertiveness has become anxious personality. Various studies have reported significant relation between the two variables [12-15].

The simultaneous existence of low assertiveness and anxiety in school is effective performance and achievement [16,17].

Promotion and acquisition of assertiveness skill is vital for teenagers. Adolescence is one of the most significant and intricate life stages. Issues and difficulties caused by the puberty make adolescence a period of crisis [18]. Assertiveness is a skill which can empower the teenagers' self-efficacy and positively impress their interactions with others to cause their trust and self-esteem. Triplett and Payne believe that the defects in this skill can result in many problems for young people [19]. Assertiveness is of great importance in high school students, adolescents and adults due to their age and peer group pressure. Furthermore, it can protect them against the factors threatening their health. Assertiveness is closely associated with self-confidence, self-esteem, anxiety and

especially school anxiety [20]. Poor assertiveness can raise the academic anxiety and academic failure consequently [21]. It also leads to learning disabilities and decreased efficiency in students (forecast of 40% probability). Due to the lack of studies in this field, this study aimed to investigate the relationship between self-esteem, assertiveness and academic achievement in female high [22].

It seems these skills in high school, adolescence and youth due to their age and peer group pressure is of great importance.

Method

This is a descriptive study done on 701 female high school students (between-17 years old) who were studying in Shiraz schools. On-hand sampling was done. Sample study consisted of 701 female high school students who were eligible with the following characteristics: female students, aged 17-14 years, with no physical and psychological disease, or mental retardation. Randomly, one educational region of Shiraz Service Center was selected amongst the forth options. Then, two high schools were randomly selected across Region IV Education Service Center. Data collection was done by applying Demographic information form, Coppersmith Self-Esteem scale, and Gambrill and Ritchie's assertiveness questionnaire (AQ).

Coppersmith Self-Esteem scale includes 58 items, in which 8 items are lie detector, and the rest of 50 items include 4 family (parents) self-esteem subscale, educational subscale (school), general self-esteem, and social self-esteem. Each item is scored on a 0-1 scale. The range of Cooper Smith's self-esteem inventory scores is 0-50. Scores above 26 indicate high levels of self-esteem and those below 26 indicate lower self-esteem. The reliability and validity of the Persian version CSSEI were obtained 0.84 and 0.85, respectively [23,24]. The Assertiveness Inventory of Gambrill & Richey consists of 22 items. This AQ has two parts. One section is devoted to measuring the degree or extent of the discomfort. Another part examines the probability of the assertive behavior. In the first part, rating scale of 5 choices includes 5=always, 4=usually, 3= almost, 2=rarely, 1= never. In general, the maximum score is 110 and minimum is 22. In the second part, rating scale of 5 choices include -5=always, -4=usually, -3= almost, -2=rarely, -1= never. The maximum score is (-22) and the minimum is (-110). In sum, the maximum score of this AQ is 88 and those who had poor assertiveness were scored below 44.

T-test was used to investigate the relationship between the students' assertiveness and demographic variables such as students and parents' age. ANOVA test was applied to examine the relationship between the students' assertiveness and academic achievement. Chi-square was used to examine the relationship between the number of children and self-esteem, in addition to the link between academic achievement, the number of children and finally the students' assertiveness and self-esteem. Data were analyzed using SPSS software.

Ethical consideration

To consider the ethical points, written consent form was given to the participants before completing the questioners. Also, the patients' name and record remained confidential. The researcher respected the right of individuals to refuse to participate in research and to withdraw their participation at any stage.

Results

Data analysis showed 15.53 ± 1.004 , 59.03 ± 13.23 , and 48.92 ± 5.05 as the students, fathers, and mothers' mean age. It also indicates 16% as the prevalence of low self-esteem (below 26), 13.8% as the prevalence of low assertiveness (below 44), and 31.7% with low-grade point average (Table 1).

Table1 Mean and standard deviation assertiveness in the study population

	M ± SD	Minimum	Maximum	PV
10-14	44.58 ± 5.54	30	68	F: 1006.30
15-16	58.97 ± 7.1	38	78	Df: 2
17 ≥	72.91 ± 7.24	54	88	Pv ≤ 0/001

Table 2 Correlation between age and parent's age with assertiveness of students in the study population.

Variables	Assertiveness	N	M ± SD	PV Independent t test*
Age	< 44	97	15.39 ± 1.2	F = 31.92
	> 44	60 4	15.56 ± 0.96	Df = 116 P ≤ 0.001
Mother age	< 44	97	43.85 ± 8.3	F = 135
	> 44	60 4	44.39 ± 4.7	Df = 106 P ≤ 0.001
Father age	< 44	97	47.84 ± 7	F = 68.74
	> 44	60 4	49.10 ± 4.64	Df = 109 P ≤ 0.001

Table 3 Correlation between number of children and with assertiveness of students in the study population.

Number of children	< 44	> 44	Total	PV
1	59 (14.2)	326 (85.8)	380 (100)	Value=11.18
2	23 (9.8)	211 (90.2)	234 (100)	df= 3
3	10 (16.9)	49 (83.1)	59 (100)	Pv= 0.006
4	9 (33.3)	18 (66.7)	27 (100)	
Total	96 (13.7)	604 (86.3)	700 (100)	

According to ANNOVA, there was a significant correlation between assertiveness and academic achievement ($p \leq 0.001$); t-test revealed a significant correlation between parents and

students' age ($p \leq 0.001$). Chi-square shows a significant correlation assertiveness and birth order ($p: 0.006$) and self-esteem and assertiveness ($p \leq 0.001$) (Tables 2-5).

Table 4 Correlation between number of children with educational achievement students in the study population

Number of children	< 15	15-17	≥ 17	Total	PV
1	115 (30.3)	128 (33.7)	137 (36.1)	380 (100)	Value=11.8 1
2	76 (32.5)	92 (39.3)	66 (28.2)	234 (100)	df= 6
3	16 (27.1)	18 (30.5)	35 (42.4)	59 (100)	PP= 0.045
4	14 (51.9)	9 (33.3)	4 (14.8)	27 (100)	Pearson Chi- square
Total	221 (31.6)	247 (35.3)	232 (23.1)	700 (100)	

Table 5 Correlation between self esteem with assertiveness of students in the study population

	44 ≤	44 >	Total	
≥ 26	76 (10.8)	36 (5.1)	112	Value =112
			16	df = 1
< 26	21 (3)	568 (81)	589	P ≤ 0.001
			86	
Total	97 (13.8)	604 (86.2)	701	Fisher- test
			100	Value=325.7
				df = 1
				P ≤ 0.001

Discussion

The results of our study on determining the effect of assertiveness skills indicate that the majority of adolescents (86.2%) have scored over 44. According to Barkin et al., 80% of the students in the 7th grade could apply a convincing level of assertiveness in different situations; this is consistent with our findings [25].

Sahebalzamani categorized the students into the following groups: about 16% were decisive, 68% neutral, and 16% were non-decisive. After the intervention, it changed into 70%, 26%, and 4%, respectively. This is inconsistent with our results [26]. The findings of most studies, revealed the positive impact of assertiveness training on decreasing anxiety and increasing assertiveness in the interventional group compared to the control group [15,27-29].

Therefore, assertiveness training is considered as an effective behavioral therapy in reducing anxiety and increasing assertiveness. The assertiveness score was high in our study. The acquisition and promotion of the assertiveness skill is vital

for young people. Adolescence is one of the most significant and intricate life stages. Issues and difficulties caused by puberty make adolescence a period of crisis [18]. Assertiveness is a skill which can empower the teenagers' level of self-efficacy and it positively impresses their interactions with others to cause their trust and self-esteem.

Triplett and Payne believe that the defects in this skill can result in many problems for young people [19]. There was a significant relationship between assertiveness and academic achievement in our study. Another study was conducted on 290 selected students (out of 372). It revealed that nursing students scored higher in confidence and determination than other students. According to this study, those with assertive behaviors had more academic achievement and values. Furthermore, they could live more comfortably. Their higher satisfaction was rooted in their more self-esteem [30]. There was a statistically significant relationship between the levels of self-esteem and assertiveness in our study. According to Sahebalzamani, Lin with colleagues' studies, assertiveness training leads to self-esteem and assertiveness increase among students [26,31]. Della Matro Mc Namara (2001) at Ohio University did a study to evaluate the impact of assertive behaviors on inter- and intrapersonal interactions in crisis. The results showed that poor assertiveness was accompanied by more anxiety level. They tend to neglect their own rights. On the other hand, higher assertiveness was along with a higher sense of cooperation and interaction which results in more peace and convenience. In other words, assertive people were more self-confident [32]. The study which was done on 409 nurses in Japan proved the impact of assertiveness training on self-esteem which was consistent with the studies on American and Taiwan nurses [33-35]. Garaigordobil Landazabal reported the impact of a game program on the increase of children's assertiveness aged 8-10 years [36]. The study done on 135 students strongly suggests that assertive behavior was significantly associated with self-confidence [37]. It seems that it is of great importance in high school students, adolescents, and adults due to their age peers. Furthermore, it can protect them against the factors threatening their health. Low assertiveness leads to learning disabilities and decreased operating efficiency in students (forecast of 40% probability) [22]. A study was done to evaluate the effect of assertiveness training on the level of assertiveness, self-confidence and interpersonal skills in nursing and medical students. About 69 participants were selected among those who had scored less or equal to 50. The educational intervention included eight sessions each lasting 2 hours. After the intervention, the level of self-confidence and assertiveness increased significantly in the intervention group [31]. A significant correlation was observed between the mean assertiveness score based on their parents' education. Therefore, parents with a college education had children with a high level of assertiveness ($P < 0.001$). There was no significant correlation between the mean assertiveness score based on birth order [38,39].

According to another study, the level of assertiveness increased with an increase in the students' age, but this relationship was significant only in boys but not in females [40].

Conclusion

Data analysis revealed a convincing level of assertiveness in students. A significant correlation was observed between assertiveness and academic achievement and self-esteem. Since assertiveness is a learnable skill, it is recommended that it should be put in elementary and high school students' curriculum to develop their progress in different fields.

Conflict of interest: No declared

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