



THE EFFECT OF AN ASSERTIVENESS TRAINING PROGRAM ON AGGRESSIVE BEHAVIOR AMONG PREPARATORY SCHOOL STUDENTS

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ABSTRACT

Background: Applying the appropriate assertiveness training program is necessary to help students to know the fine line between assertion and aggression, change their negative attitudes, express their positive and negative emotions without violating the rights of others **Aim:** To evaluate the effect of an assertiveness training program on aggressive behavior among preparatory school students **Design:** A quasi-experimental research design was used. **Setting:** The study was conducted at Huda Sharawy preparatory school, El-Shaheed Ahmed Hamdy preparatory school for Girls, 25 January preparatory school and Mahatet El- kahraba preparatory school, Helwan, Cairo. **Sample:** A simple random sample of 176 students was selected from 1760 preparatory school students at 1st grade in El-Masara district during the academic year 2021-2022. **Tools:** Data were collected by using the following tools: Socio-demographic characteristics questionnaire, Aggression questionnaire and Assertiveness formative questionnaire. **Results:** there were statistically significant differences between pre and post training program regarding total aggression and assertiveness among the studied students. 62.5% of the studied students had mild level of total aggression pre assertiveness training program while improved to 82.4% of them post training program. While, 9.6% of them have high assertiveness pre training program and improved to 42.6% of them post training program. **Conclusion:** After the implementation of assertiveness training program, there was a highly statistically significant decrease in the total mean score of the aggressive behavior and also, improvement in total scores of assertiveness among preparatory school students. **Recommendations:** A guidance booklet should be available for students and teachers at school library about the importance of assertiveness and developing students' social skills.

Keywords: Aggressive Behavior, Assertiveness, Assertiveness Training Program, Preparatory School Students.

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INTRODUCTION

Assertiveness is a behavioral response that strives to maintain a balance between passive and aggressive response patterns with a focus on equality and fairness in interpersonal interaction ⁽¹⁾. Assertiveness is the ability to express one's feelings and needs while respecting rights of others. It's the core of interpersonal behavior and important key to human relations. It's a skill that can be learned and maintained by frequent practices ⁽²⁾. Assertive behavior help individuals adapt to social situations and reduce social anxiety. Nonassertive behavior can lead to negative consequences such as aggressive behavior and substance use ⁽³⁾.

Preparatory school students are the greatest investment of any community and the main basis for its development. Preparatory school students constitute a significant and important sector of the population who are constantly growing and developing ⁽⁴⁾. It has long been recognized that developmental changes in typically developing adolescents may be associated with increased aggressive behavior ⁽⁵⁾.

Aggression is defined as "an intentional behavior with the potential to cause destruction or harm. Aggression may manifest as verbal threats or attacks, negative use of objects or physical assaults on known people, strangers or self." Aggression is used to describe any behavior by an individual against another with a sole purpose of inflicting psychological or physical pain. Aggression takes various forms, including physical aggression, verbal aggression, anger and hostility ⁽⁶⁾.

People sometimes confuse assertiveness with aggression. In fact, assertiveness can be thought of as a middle point between passivity and aggression. In interpersonal

situations, passive behavior occurs when focusing on the needs and desires of another person and ignore own needs and wishes. In contrast, aggressive behavior occurs when forcing own needs on others ⁽²⁾.

Preventing and responding to aggression in schools can improve educational outcomes of students and achieving educational targets. There are many life skills can be taught to help in aggression prevention and protect against other issues that affect learning, such as drug use. These skills include communication skills, managing emotions, resolving conflicts and solving problems. Aggression consequences may also prevent teachers from carrying out their roles effectively. Reducing aggression and its negative consequences such as absenteeism, lack of concentration, or school dropout, can have a positive impact on learning ⁽⁷⁾.

Schools prioritize three critical and inter-related components of health which support social, emotional and behavioral aspects to promote overall students well-being. So, psychiatric nurses at schools should help in developing and planning of aggression prevention and intervention programs within the schools ⁽⁸⁾.

Applying the appropriate assertiveness training program is necessary to help students to know where the fine line between assertion and aggression, change their negative attitudes, express their positive and negative emotions without violating the rights of others ⁽⁹⁾.

Significance of the Study:

Aggression affects 10–25 percent of youth and is considered one of the most common reasons for referral to psychiatric care in children. Aggression is a symptom that is common to many psychiatric disorders and can predicts social-emotional problems in adulthood ⁽¹⁰⁾. UNESCO estimated that approximately 30% of all

children annually experienced some type of aggression at schools ⁽¹¹⁾. Egypt reported that 35% of violent traits and 11.7% of violent behavior occur among preparatory school students. Also, 51% of boys and 20% of girls in preparatory and secondary schools had initiated violent attacks at schools ⁽¹²⁾.

From the researcher point of view, it's necessary to apply and implement the appropriate assertiveness training program in order to help students change negative attitudes, express feelings, thoughts and needs for more dignified and successful interpersonal relationships. So, the aim of the study was to evaluate the effect of assertiveness training program on aggressive behavior among preparatory school students.

AIM OF THE STUDY

The aim of the present study was to evaluate the effect of an assertiveness training program on aggressive behavior among preparatory school students through the following objectives:-

- Assessing assertive and aggressive behavior among preparatory school students.
- Planning for assertiveness training program for preparatory school students.
- Implementing assertiveness training program for preparatory school students.
- Evaluating effect of assertiveness training program on preparatory school students.

Research hypothesis:

Assertiveness training program will have a positive effect on aggressive behavior among preparatory school students.

SUBJECTS AND METHODS

I. Technical design:

The technical design included research design, setting, subjects and tools of data collection.

Research design:

A quasi-experimental research design was used to conduct the current study.

Setting:

The study was conducted at Huda Sharawy preparatory school which located at Hadayek Helwan, Helwan, Cairo and includes 160 students at 1st grade divided into 4 classes, El-Shaheed Ahmed Hamdy preparatory school for Girls which located at Hadayek Helwan, Helwan, Cairo and includes 180 students at 1st grade divided into 4 classes, 25 January preparatory school which located at Masarah, Helwan, Cairo and includes 140 students at 1st grade divided into 3 classes and Mahatet El- kahraba preparatory school which located at Electricity residences, Helwan, Cairo and includes 175 students at 1st grade divided into 4 classes. Schools were selected randomly from 11 preparatory schools in El-Masraa district.

Subjects:

A simple random sample of 176 students was selected from 1760 preparatory school students at 1st grade in El-Masara district during the academic year 2021-2022. Study sample were divided into 4 groups each group represents one class at school. The researcher randomly selected four schools by using numbers which was written in a closed paper and assigned to each school. Then the researcher closed eyes and randomly picked up a subset of four numbers which represent four schools from 11 schools in El-Masara district. So, the study sample included **40** students from Huda Sharawy preparatory school, 47 students from 25 January preparatory school, 44 students from Mahatet El-kahraba preparatory school and 45 students El-Shaheed Ahmed Hamdy preparatory school for Girls. They were selected based on the following inclusion criteria:

- Preparatory school students in selected classes from 1st grade.

- Both sexes.
- Accept to participate in the study.

Tools of data collection:

Data were collected by using the following tools:

1- Socio-demographic characteristics questionnaire:

This questionnaire was used and developed by researcher after reviewing national and international related literature. The aim of the questionnaire was to assess preparatory school student's socio demographic data such as age, sex, family size, order of birth and level of father's and mother's education.

2- Aggression questionnaire ⁽¹³⁾:

The aggression questionnaire consisted of 29 items divided into 4 domains, physical aggression (9 items), verbal aggression (5 items), anger (7 items) and hostility (8 items). Each item was scored on 5 points scale 1 = extremely uncharacteristic of me, 2 = somewhat uncharacteristic of me, 3 = neither uncharacteristic nor characteristic of me, 4 = somewhat characteristic of me and 5 = extremely characteristic of me. The total score for aggression is the sum of the domains scores.

Domain	Range	Low < 60	Moderate 60-< 80%	High > 80%
Physical aggression	9-45	9-26	27-35	36-45
Verbal aggression	5-25	5-14	15-19	20-25
Anger	7-35	7-20	21-27	28-35
Hostility	8-40	8-23	24-31	32-40
Total	29-145	29-86	87-115	116-145

Two questions were reversely scored; "I am an even-tempered person" & " I can think of no good reason for ever hitting a person".

3-Assertiveness Formative Questionnaire ⁽¹⁴⁾:

The assertiveness formative questionnaire was designed to measure student's

proficiency in the two essential components of assertiveness, which are:

1. Even when it's difficult, express my wants, needs, and thoughts (13 items).
2. Even when it's difficult, respect what others want, need, and think (7 items).

Each item was scored on 5 points scale 1 = not very like me, 2 = rarely like me, 3 = like me to some extent, 4 = often like me and 5 = very like me. The total score for assertiveness is the sum of the subscales scores.

Subscale	Range	Nonassertive < 60%	Average assertiveness 60-< 80%	High assertiveness > 80%
Express needs and thoughts	13-65	13-38	39-51	52-65
Respect subscale	7-35	7-20	21-27	28-35
Total	20-100	20-59	60-79	80-100

Some items were reversely scored as "I often have a hard time saying "No.", "when an argument is over, I often wish I would have said what was really on my mind", "I tend to just go along with what everyone else wants instead of stating my own thoughts", "I sometimes avoid asking questions for fear of sounding stupid", "I tend to bottle up my emotions rather than talk about my feelings" and "I have a hard time controlling my emotions when I disagree with someone".

The assertiveness formative questionnaire was found to be moderately reliable (20 items; $\alpha=.733$). The express subscale consisted of 13 items ($\alpha=.747$), and the respect subscale consisted of 7 items ($\alpha=.682$).

II. Operational Design:

The operational design included preparatory phase, pilot study, field work ethical considerations and limitation of the study.

Preparatory phase:

This phase started with a review of current and past, national and international related literature and theoretical knowledge

of various aspects of the study by using books, articles, internet periodicals and magazines to develop tools for data collection and the training program for students.

Pilot study:

A pilot study was conducted on 10% of the total study sample (17 students) of the total students from 1st grade preparatory schools in El-Masara district, In order to ensure reliability, clarity of questions and applicability of the tools, the time needed to complete the tools and perform the required modifications according to the available resources. Subjects who shared in the pilot study were excluded from the main study sample. The time needed to fill out the tools was about 15 to 25 minutes.

Field work:

The actual field work started within first semesters of the academic year (2021-2022) in the beginning of October 2021. The researcher applied the sessions by collecting data from the end of October to the end of January in the academic year (2021-2022). The researcher was applied the sessions for students two days per week (Tuesdays and Wednesdays) for data collecting.

This program implementation phase was supposed to start at the beginning of the second semester of the academic year 2021-2022 for a period of 3 months.

The study took about 6 months divided as (3) months for program preparation and assessment phase and about (3) months for implementation of the program, added to immediately post-test. The researcher divided the study sample into 4 groups according to class capacity. Groups include one class from Huda Sharawy preparatory school including 40 students, one class from 25 January preparatory school including 47 students, one class from Mahatet El- kahraba preparatory school including 44 students and one class

from El-Shaheed Ahmed Hamdy preparatory school for girls including 45 students.

The researcher met the students at Huda Sharawy preparatory school on Tuesdays from 09:00 – 10:00 am in school computer lab and students at El-Shaheed Ahmed Hamdy preparatory school from 11:00 – 12:00 pm at student class. Also, the researcher met students at 25 January preparatory school on Wednesday from 09:00 – 10:00 am at student class and students from Mahatet El- kahraba preparatory school from 11:00 – 12:00.

The program was implemented on preparatory school students in the terms of sessions with the integration of the theory into practice assertiveness training program. The instructional program included one acquaintance session, 12 theoretical and practical sessions (4 for theoretical part and 8 for practical part) and one data collection session. The sessions were delivered throughout 14 weeks. Each week involved one session for each group lasting for 60 minutes.

Ethical considerations:

Ethical approval obtained from the Scientific Ethical Committee in faculty of nursing -Helwan University. The researcher assured for every selected student involved in the study sample, that participation is voluntary and that they have the right to withdraw from the study at any time without giving any reason. The researcher assured confidentiality of data for every student involved in the study sample by using codes to identify participants instead of names. The researcher clarified that all information would be used for scientific research and for the students' benefits.

Instructional program phases:

This study was conducted by assessment, planning, implementation and evaluation phases as following:

1. The assessment and data collection phase (the first phase):

This phase started with a review of current and past, national and international related literature and theoretical knowledge of various aspects of the study by using books, articles, internet periodicals and magazines to develop tools for data collection and the training program for students. The students' socio-demographic sheets and pre-testing questionnaires were collected to assess assertiveness and aggressive behavior among preparatory school students. The tools were collected one day/week for 35-45 minutes in each time.

The tools were collected on Tuesday for the first semester of the academic year 2021-2022. The students were filling out the tools. The purpose of the study was explained prior to answering the questionnaires. The sheet was filled by students in the presence of the researcher to ensure maximum homogeneity response and allows the researcher to read and offer a clarification, if there are ambiguities or confusing questions.

The students' assessment was done pre implementation of the instructional module program through students' interview by them questions to get information that related to socio-demographic data, assertiveness and aggressive behavior. Assessment phase has been applied in a period of three months, started from the first semester of the academic year (2021-2022).

2. The planning phase (the second phase):

According to the initial assessment, the content of the instructional module program was designed. The training program was developed by the researcher based on the students' needs and review of related literature. The content of the instructional module program was developed for the students and written in simple Arabic language. Furthermore, it

met the students' needs and level of understanding. The program booklet covered knowledge and practice related to assertiveness training. The program booklet was developed to be a guide and a reference for the students in the future. The instructional module program was conducted through lectures, role play, demonstration, group discussion, brain storming and real situation, using data show, picture video and handout.

3. The implementation phase (the third phase):

The instructional module program was designed to evaluate the effect assertiveness training program on aggressive behavior among preparatory school students.

Theoretical part:

This part was conducted through lectures, role play, demonstration, group discussion, brain storming and real situation, using data show, picture video and handout. At the beginning of the first session, an orientation of the instructional module program purpose took place and students were informed about the time and place of the sessions. It started with clarifying the purpose of the program, number of sessions, teaching methods and media, evaluation methods, target students and orient the students regarding program content. It was taken in 3 sessions (each session for 60 minutes).

Each session started with summary about what was given in the previous session to ensure that they remembered the knowledge. The objectives of the new session were mentioned through; using simple, brief and clear language with terms that suitable for the students' level of understanding. At the end of every session the researcher summarized the information with students and emphasized the most important points. The handout was distributed to all students included in the program on the first day of starting the

program implementation. Each group received the same program and using the same teaching strategies; lectures, role play, demonstration, group discussion, brain storming and real situation, using data show, picture video and handout.

4. The evaluation phase (the fourth phase):

The effect of premarital counseling on faculty of nursing students at Helwan University was evaluated by comparing the assessment tools of the students' knowledge and practice. They were filled 2 times pre the program implementation and immediately post the program implementation.

III. Administrative Design:

The study facilitation letter to conduct the study was received from the Department of postgraduate studies at faculty of nursing - Helwan University to the director of El- Masara Educational Administration. The researcher explained

the purpose of the study and the methods of data collection for the study sample and asked for their cooperation.

IV. Statistical Design:

Data entry and statistical analysis were done using the statistical package for social science (SPSS), version 20. Statistical presentation and analysis of the present study was conducted, using the mean, standard deviation, unpaired student t-test, Pearson's correlation coefficient and chi-square tests. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables. Qualitative categorical variables were compared using chi-square test while Pearson's correlation coefficient was used for detection of correlation between two quantitative variables in one group. Statistical significance was considered at p-value <0.05; while highly significant was considered at p-value p > 0.00

RESULTS

Table (1): Number and percentage distribution of the studied students according to their socio-demographic characteristics (n=176).

Personal information	N	%
Age		
< 12 years	3	1.7
12-13 years	143	81.3
>13 years	30	17.0
Mean± SD 12.71± 0.764		
Gender		
Boys	54	30.7
Girls	122	69.3
Order between siblings		
First	60	34.1
Second	58	32.9
Third	37	21.1
More than third	21	11.9
School performance		
Good	87	49.4
Average	86	48.9
Poor	3	1.7
Playing sports		
Yes	71	40.3
No	105	59.7

Table (1): illustrates that (81.3%) of the studied students' age ranged from 12-13

years was with a mean \pm SD of 12.71 \pm 0.764. Regarding their gender, female's distribution was (69.3%). The order of the studied students between their siblings was

the first (34.1%) and the second (32.9%). (49.4%) of the studied students had good school performance and 59.7% of the studied students weren't playing sports.

Table (2): Number and percentage distribution of the studied students' parents according to their socio-demographic characteristics (n=176).

Personal information	N	%
Father's education		
Educated	145	82.4
Uneducated	31	17.6
Mother's education		
Educated	148	84.1
Uneducated	28	15.9
Father's job		
Working	170	96.6
Not working	6	3.4
Mother's job		
Working	68	38.6
Not working	108	61.4
Number of family members		
3-5	101	57.4
6-8	72	40.9
≥ 9	3	1.7
Mean \pm SD 5.14 \pm 1.54		
Crowding index (number of family members/ number of rooms)		
Two or less (Normal)	122	69.3
More than two (Crowded)	54	30.7
Family income		
Enough	128	72.7
Not enough	48	27.3

Table (2) clarifies that (82.4%) of the students' fathers and (84.1%) of their mothers were educated and fathers who were working (96.6%), while, mothers who weren't working (61.4%). The family size of studied students that ranged from

3-5 was (57.4%) with a mean \pm SD 5.14 \pm 1.54, 69.3% of them had normal crowding index and 72.7 % of them reported that their family income was enough.

Table (3): Description of the studied students regarding their total physical aggression at pre and post training program implementation (n=176).

Total	Pre (n=176)		Post (n=176)		Chi-square P Value
	No	%	No	%	
Physical aggression					50.55 < 0.001**
Low	110	62.5	145	82.4	
Moderate	52	29.5	24	13.6	
High	14	8.0	7	4.0	
Mean \pm SD	23.97 \pm 7.151		19.159 \pm 8.26		
% of improvement	20%				

Table (3): shows that there is a highly statistically significant difference between pre and post assertiveness training program regarding total physical aggression among studied students at p

value < 0.001** with mean \pm SD 23.97 \pm 7.151pre training program, with mean \pm SD 19.159 \pm 8.26 post training program & percentage of improvement (20%).

Table (4): Description of the studied students regarding to their total verbal aggression at pre and post training program implementation (n=176).

Total	Pre (n=176)		Post (n=176)		Chi-square P Value
	No	%	No	%	
Verbal aggression					10.92 < 0.05*
Low	80	45.5	134	76.1	
Moderate	76	43.1	24	13.7	
High	20	11.4	18	10.2	
Mean \pm SD	15.204 \pm 4.017		12.74 \pm 5.063		
% of improvement	16.2%				

Table (4): shows that there is a statistically significant difference between pre and post training program regarding total verbal aggression among the studied students at p value < 0.05* with mean \pm SD

15.204 \pm 4.017 pre training program, with mean \pm SD 12.74 \pm 5.063 post training program & percentage of improvement (16.2%).

Table (5): Description of the studied students regarding to their total anger at pre and post training program implementation (n=176).

Total	Pre (n=176)		Post (n=176)		Chi-square P Value
	No	%	No	%	
Anger					27.50 < 0.001 **
Mild	80	45.5	145	82.4	
Moderate	72	40.9	17	9.7	
High	24	13.6	14	8.0	
Mean \pm SD	21.67 \pm 6.58		17.079 \pm 6.283		
% of improvement	21.1%				

Table (5): clarifies that there is high statistically significant difference between pre and post training program regarding total anger among the studied students at

p value < 0.001* with mean \pm SD 21.67 \pm 6.58 pre training program, with mean \pm SD 17.079 \pm 6.283 post training program & percentage of improvement (21.1%).

Table (6): Description of the studied students regarding total hostility at pre and post training program implementation (n=176).

Total	Pre (n=176)		Post (n=176)		Chi-square P Value
	No	%	No	%	
Hostility					76.00 < 0.001**
Low	134	76.2	147	83.5	
Moderate	40	22.7	28	15.9	
High	2	1.1	1	0.6	
Mean \pm SD	20.562 \pm 5.59		17.93 \pm 6.045		
% of improvement	12.8%				

*Significant at p <0.05

**Highly significant at p <0.001

Not significant at p>0.05

Table (6) demonstrates that there is high statistically significant difference between pre and post training program regarding total hostility among the studied students

at p value < 0.001* with mean \pm SD 20.562 ± 5.59 preprogram, with mean \pm SD 17.93 ± 6.045 post training program & percentage of improvement (12.8 %).

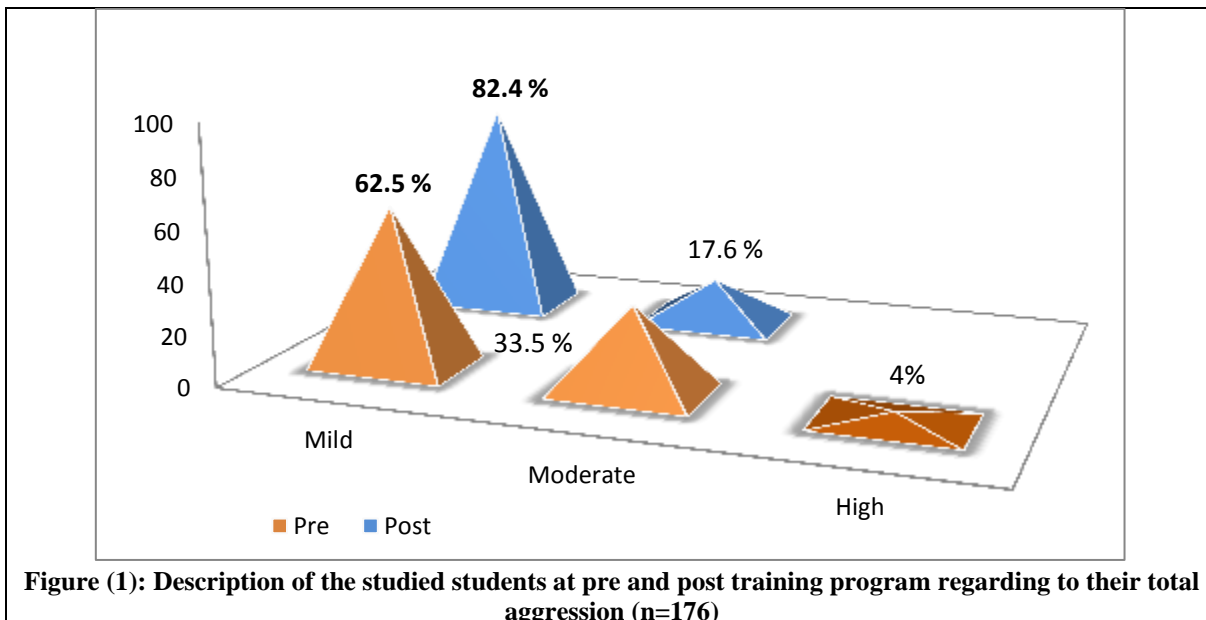


Figure (1) illustrates that (62.4%) of the studied students had mild level of total aggression pre assertiveness training program while improved to be (82.5%) post

training program. While, (4%) of the studied students had high level of total aggression pre assertiveness training program compared to (0%) post training program.

Table (7): Description of the studied students regarding their total assertiveness in relation to express needs and thoughts at pre and post training program implementation (n=176).

Total	Pre (n=176)		Post (n=176)		Chi-square P Value
	No	%	No	%	
Express needs and thoughts					16.72 0.015*
Nonassertive	78	44.3	22	12.5	
Average assertiveness	90	51.1	105	59.7	
High assertiveness	8	4.5	49	27.8	
Mean \pm SD	37.96 ± 10.14		43.02 ± 6.51		
% of improvement	13.3%				

*Significant at p <0.05

**Highly significant at p <0.01

Not significant at p>0.05

Table (7) demonstrates that there is statistically significant difference between pre and post training program regarding total assertiveness in relation to expressing wants, needs and thoughts among the

studied students at p value < 0.05* with mean \pm SD 37.96 ± 10.14 pre training program, with mean \pm SD 37.96 ± 10.14 post training program & percentage of improvement (13.3 %).

Table (8): Description of the studied students regarding their assertiveness in relation to respect others at pre and post training program implementation (n=176).

Total	Pre (n=176)		Post (n=176)		Chi-square P Value
	No	%	No	%	

Respect others					
Nonassertive	81	46.0	21	11.9	19.12 <0.05*
Average assertiveness	56	31.8	63	35.8	
High assertiveness	39	22.2	92	52.3	
Mean ± SD	20.84 ± 7.67		25.3 ± 4.25		
% of improvement	21.4%				

Table (8) shows that there is statistically significant difference between pre and post training program regarding total assertiveness in relation to respecting others among the studied students at p value <0.05*

with mean ± SD 20.84 ± 7.67 pre training program, with mean ± SD 22.92 ± 5.87 post training program & percentage of improvement (21.4%).

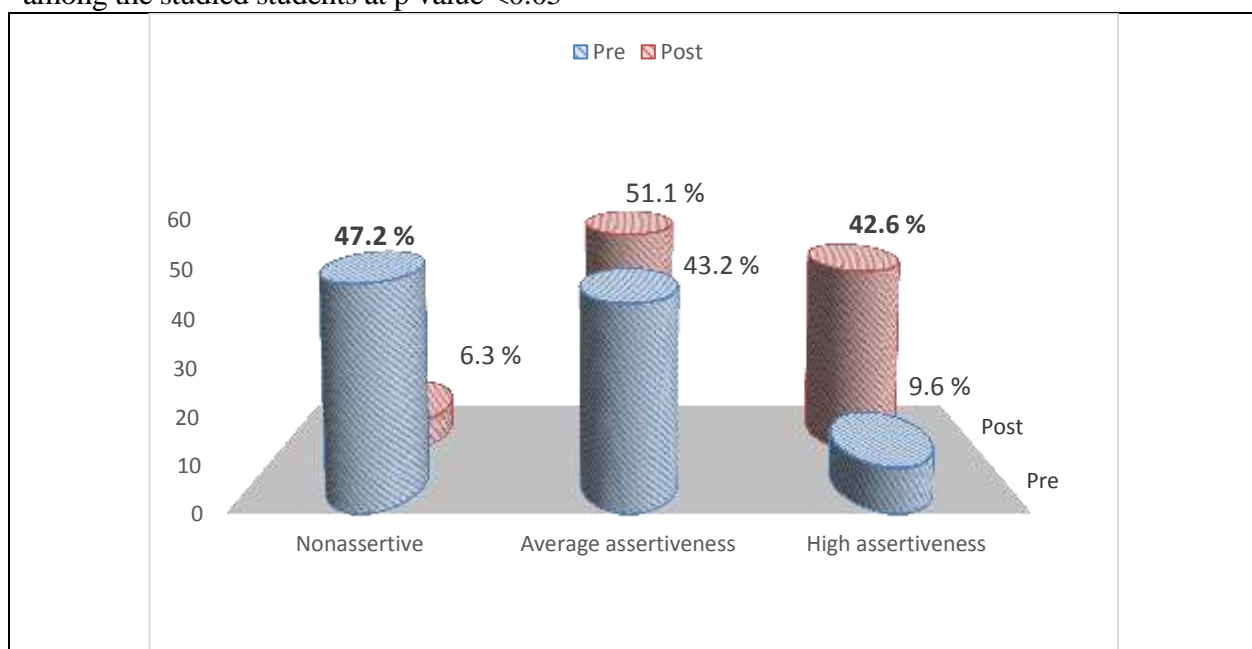


Figure (2): Description of the studied student at pre and post training program implementation regarding to their total assertiveness (n=176).

Figure (2) illustrates that (47.2%) of the studied students are nonassertive pre assertiveness training program compared to (6.3%) post training program. While,

(9.6%) of the studied students have high assertiveness pre training program and improved to be (42.6%) post training program.

Table (9): Correlation between total aggression of studied students (pre) and their total assertiveness pre & post training program implementation (n=176).

Items		Total aggression			
		Pre		Post	
		Pearson Correlation	P- Value	Pearson Correlation	P- Value
Total Assertiveness	Pre	0.213	0.004*	0.02	0.794
	Post	0.372	< 0.001**	0.347	< 0.001**

*Significant at p < 0.05

**Highly significant at p < 0.001

Not significant at p>0.05

Table (9): reveals that there is a statistically significant correlation between total aggression of studied students and their total assertiveness pre training program implementation with p value (0.004*). There are high statistically significant correlations between total aggression (pre & post) and their total

DISCUSSION

The current study results revealed that the majority of the studied students' age was ranged from 12-13 years with a mean \pm SD of 12.71 ± 0.764 . This finding might be due to the age of the students at the first preparatory year is ranged from 12-13 years after having six years of primary education. This result was congruent with **Assaf et al.** ⁽¹⁵⁾ who reported about "Assessment of aggressive behavior among preparatory school children in Tanta city, Egypt" and found that the studied students from preparatory schools aged from 12 to 15 years.

The present study results represented that more than two thirds of the studied students were girls. This finding might be due to the number of girls preparatory schools affiliated to El Massara educational administration was more than boys and mixed schools. This result was in agreement with **Badamas** ⁽¹⁶⁾, who studied "Causes and preventive measures of aggressive behavior among in-school adolescents in Ilorin Metropolis: Stakeholders' Perception" and reported that more than half of the respondents were female.

The current study results revealed that more than one third of the students were the 1st between siblings. This finding might be due to the family focus on the first sibling to be model for the other siblings. This result disagreed with **Saad et al.** ⁽¹⁷⁾ who studied "Effect of play intervention on aggression behavior and social skills among elementary school children" and mentioned that the minority of the studied school children were the first among their sibling.

The present study results clarified that nearly half of the studied students had good school performance. This finding might be due to the majority of the students' fathers and mothers were educated and they were motivating their children to achieve higher

assertiveness post program implementation with p value ($<0.001^{**}$). While, there is no statistically significant correlation between total aggression post training program implementation and total assertiveness pre training program implementation with p value (0.794).

school performance. This result was congruent with **Ali, & Mohamed** ⁽¹⁸⁾, who studied "Assertiveness training to improve self-esteem among school-age children with speech and language disorders" reported stated that more than half of the children had superior educational level.

The current study results reported that more than half of the studied students weren't playing sports. This finding may be related to more than two thirds of the students were females and playing sports is usually most common among male than female. This result was in the same line with **Choudhary et al.** ⁽¹⁹⁾, who studied "Aggression, self-esteem, and resilience among children: A school-based cross sectional study from central India" and stated that more than half of the study participants didn't enjoy watching/playing sports. On the other hand, this result was incongruent with **Elmasry et al.** ⁽⁵⁾, who studied "Physical and verbal aggression among adolescent school students in Sharkia, Egypt: prevalence and risk factors" and reported that the majority of the participants were playing sports.

The current study results illustrated that the majority of the students' fathers and mothers were educated. This finding might be due to presenting social development and increasing rate of education. This result was congruent with **Keskin et al.** ⁽²⁰⁾, who studied "Reviewing assertiveness level of elite male and female athletes in different sports branches" and mentioned that all of participants' fathers and mothers were educated. While, this result was inconsistent with **Niyogi et al.** ⁽²¹⁾, whose study found "Relationship between emotional intelligence, self-esteem, and assertiveness among South Indian youth" and reported that less than half of their fathers and mothers had only primary school education.

Additionally the current study results illustrated that the most of the students' fathers were working; this finding might be due to family needs that require financial support and the fathers' responsibility to satisfy these needs. This result agreed with **Sabra and Hassan** ⁽²²⁾ who studied "Role of perceived social support on self-esteem and aggression among adolescents" and found that all of the participants' fathers were employed. While, **Ayhan and Oz** ⁽²³⁾ who studied "Effect of assertiveness training on the nursing students' assertiveness and self-esteem levels: Application of hybrid education in Covid 19 pandemic" stated that less than two fifths of the students' fathers were working.

In the same context, nearly two thirds of the mothers weren't working. This can be due to the most of the students' fathers were working and the family income was enough for the majority of them. This result was consistent with **Niyogi et al.** ⁽²¹⁾, who reported that the majority of the studied youth's mothers were homemakers. While, this result disagreed with **El Sayed et al.** ⁽⁶⁾, who studied "Aggressive behavior and psychosocial adjustment among port said university adolescent students" and reported that more than half of the students' mothers were working.

The present study results reported that slightly more than half of the students' family size ranged from 3-5 and more than two thirds of them had normal crowding index. This finding might be due to the direction of most of the Egyptians to have small size families. This result was dissimilar to **Saad et al.** ⁽¹⁷⁾ who stated that two thirds of the participants had 5-7 members and about half of them had crowding index.

The current study results illustrated that nearly three quarters of the studied students reported that their family income was enough. This finding might be due to the most of the students' fathers were working. This result was in agreement with **El Sayed et al.** ⁽⁶⁾, who reported that the highest percentage of the studied students had enough income. Contrawise, this result disagreed with **Sabra and Hassan** ⁽²²⁾, who mentioned that less than half of the students' families had enough income.

The current study results reported that there was a highly statistically significant difference between pre and post assertiveness training program regarding total physical aggression scores among the studied students with a percentage of improvement (20%). This decrease reflects the effectiveness of assertiveness training on subjects' physical aggression. This finding agreed with **Dehnavi and Ebrahimi** ⁽²⁴⁾, who studied "Effect of assertiveness skills training on the level of aggression in high school first grade female students in Qorveh City" and found that physical aggression scores in post-test scores had a significant decrease when compared with pre-test.

The present study results clarified that regarding total verbal aggression scores of the studied students, there was a statistically significant difference between pre and post training program regarding total verbal aggression among the studied sample & percentage of improvement (16.2%). This result was consistent with **Ebrahem et al.** ⁽²⁵⁾ who studied "The Effectiveness of life skills training on assertiveness, self-esteem and aggressive behavior among patients with substance use disorders" and stated that there was a highly statistically significant reduction in all categories of aggression (physical aggression, verbal aggression, anger and hostility) post-intervention compared to pre-intervention.

The present study results clarified that there was high statistically significant difference between pre and post training program regarding total anger among the studied sample & percentage of improvement (21.1%). This may be due to the assertiveness training program was successful in treating the situational aspects of anger expression for the studied students. This result agreed with **Hamza et al.** ⁽²⁶⁾, who studied "Cognitive behavioral skill-based training program for enhancing anger control among youth" and found a significant difference in the pre and post assessment of the participants in resilience, clinical anger, state and trait anger and anger control and stated that anger intensity had declined 21% for the treatment group.

The present study demonstrated that there

was high statistically significant difference between pre and post training program regarding total hostility among the studied sample & percentage of improvement (12.8 %). This result was similar to **Hamza et al.**⁽²⁶⁾, who stated that there was shows significance difference for the domains of physical aggression, hostility and total aggression in the pre and post assessment of the participants.

This study results showed that less than two thirds of the studied students had mild level of total aggression pre assertiveness training program while improved to the majority of them post training program. This may be due to the content of the assertiveness training program helped in reducing aggression among the students by involving proper ways of emotional control, communication skills and problem-solving skills, as well, by providing relaxation, cognitive and behavior coping skills. This finding was in the same line with **Ebrahim et al.**⁽²⁵⁾ whose study reflected that more than two-thirds of the participants had a mild level of aggression after the training compared to the minority before training.

The study results demonstrated that there was statistically significant difference between pre and post training program regarding total assertiveness in relation to expressing wants, needs and thoughts among the students & percentage of improvement (13.3 %). This finding agreed with **Parray and Kumar**⁽²⁷⁾, who studied "The effect of assertiveness training on behavior, self-esteem, stress, academic achievement and psychological well-being of students" and found that the participants in the intervention group had higher mean assertiveness scores in the post-test.

The current study findings showed that there was statistically significant difference between pre and post training program regarding total assertiveness in relation to respecting others among the studied students & percentage of improvement (21.4%). This result is congruent with **Parray et al.**⁽²⁸⁾, who studied "Investigating the impact of assertiveness training on assertiveness and Self-esteem of High School students" and reported that assertiveness training significantly increased the assertiveness

among students and that completing the training was beneficial for students to learn the concept of assertive behavior and differentiate it from aggressive and submissive behavior.

This study results illustrated that nearly half of the studied students were nonassertive pre assertiveness training program compared to the minority of them post training program. While, the minority of the studied students had high assertiveness pre training program and improved to be nearly half of them post training program. These findings may be due to participating in assertiveness training has helped the students to practice assertive behavior in different conditions and to apply it practically in their daily life. Besides, the AT provided opportunities for students to explore relationships with others and helped them in identifying the benefits of assertiveness with others.

This explanation is supported by **Boket et al.**⁽²⁹⁾, who studied "The effect of assertiveness skills training on reduction of verbal victimization of high school students" and stated that assertive behavior skills can be acquired by assertiveness training that can help individuals choose the appropriate type of behavior for each situation, build their self-confidence and express their thoughts and feelings.

These findings were similar to **Ayhan and Öz**⁽²³⁾, who reported that two thirds of the students in the experimental group perceived themselves as assertive and there was a statistically significant increase in the mean of posttest assertiveness scores of the students in the experimental group compared to the mean of their pretest scores.

The present study results revealed that there was a statistically significant correlation between total aggression of studied students and their total assertiveness pre training program implementation. There are high statistically significant correlations between total aggression (pre & post) and their total assertiveness post program implementation. While, there is no statistically significant correlation between total aggression post training program implementation and total assertiveness pre training program implementation.

These findings agreed with **Ebrahim et al.** ⁽²⁵⁾, whose study indicated that there was a statically significant negative correlation between assertiveness skills and total aggression which means that when patients have assertiveness skills, the aggressive behavior will be decreased. This could be due to assertiveness skills help them to realize reasons for incorrect or inappropriate behavior, and they learned different methods to cope with situations. Also, **Parray et al.** ⁽²⁸⁾, found that the assertiveness training had significantly modified the behavior of the students from aggressive to assertive.

CONCLUSION

From the results of the present study it could be concluded that:

Assertiveness training program had a positive effect on aggressive behavior among preparatory school students. After the implementation of assertiveness training program, there was a highly statistically significant decrease in the total mean score of aggressive behavior and also, improvement in total scores of assertiveness among preparatory school students. There was a statistically significant correlation between total aggression of studied students and their total assertiveness pre-program implementation. There was a high statistically significant correlation between total aggression (pre & post) and students total assertiveness post program implementation.

RECOMMENDATIONS

- A guidance booklet should be available for students and teachers at school library about the importance of assertiveness and developing students' social skills.
- Classroom-based programs that emphasize skill-building as self-monitoring, self-regulating emotions and behaviors and communication skills to express anger and frustration.

Abbreviations: UNESCO: United Nations Educational, Scientific and Cultural Organization.

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