

# The Role Of Physical Education And Sports In Reducing Aggressive Behavior

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## Abstract:

The study aimed to find out the effect of the physical education and sports class in reducing aggressive behavior among students. To address this issue, the variable of aggressive behavior was divided into two axes, Excitability and attack, and a questionnaire was built with 15 statements that were distributed to 100 students, and after statistical processing by the statistical package program spss, we found that the physical education and sports class has a role in reducing aggressive behavior, whether in terms of arousal or aggression.

**Keywords:** Attack, Excitability, physical education and sports.

## 1-Introduction:

Physical activity is generally defined as any bodily movement produced by skeletal muscles and which requires energy expenditure (Caspersen et al., 1985). Physical activity has drawn increasing attention in prevention and intervention studies, since it is cost-effective and has various positive effects for physical and mental health. Moreover, increasing evidence support that physical activity also has positive impact on physical, psychological and cognitive function (Janssen et al., 2014), community participation, bonding with society and sense of identity (Haudenhuyse et al., 2014). Children and adolescents who have more opportunities to participate in

physical activities have been found to show low levels of aggression (Fite & Vitulano, 2011).

We also find recently the emergence of what is known as aggressive behavior within educational institutions, and perhaps aggressive behavior is one of the most important negative behaviors, which is considered the external expression of repressed aggressive feelings, including attack and provocation, and this has led to a negative impact in the educational environment, especially by students in the middle school stage, which is the most important age stage for the emergence of the phenomenon of aggressive behavior, and it is the most difficult stage that the student goes through.

Acts that directly target others with the goal of causing them immediate harm are referred to as aggressive behavior (AB) and include bullying and violence (Anderson & Bushman, 2002). Around 51% of teenagers demonstrated high levels of hostility in secondary school, according to a study, and this aggressive inclination exhibited a notable upward trend throughout adolescence (Hamza et al., 2019). Adolescent aggressiveness has varied degrees of detrimental effects on offenders, victims, and onlookers. According to Moore et al. (2017) and Schoeler et al. (2018), bullying throughout adolescence raised the likelihood of poor academic achievement, trouble adjusting to school, substance addiction, and violent and criminal behavior in the future.

These behaviors appear especially during sports activities in the physical education and sports class, which is a widespread educational system that reflects one of the aspects of human behavior, where sports activities in the educational institution occupy an essential place in the life of the student and is considered one of the channels of venting aggressive behavior.

Given the great importance that sports activities constitute in the various stages of education due to the development of behaviors, whether sensory, emotional, cognitive or motor, and we see the great importance of it in the great role it plays in reducing some behaviors, especially at this stage.

On this basis, the general question came:

- Does the physical education and sports class have a role in improving the aggressive behavior of middle school students?

## **2- Hypotheses:**

### **2.1- General Hypothesis:**

- The physical education and sports class has a role in improving some aggressive behavior in middle school students.

#### **2.1.2 - Partial hypotheses:**

- The physical education and sports class has a role in reducing aggression in middle school students.
- The physical education and sports class has a role in reducing arousal in middle school students.

### **3- Importance of the research:**

In this field, the study comes to shed light on the phenomenon of school aggression behavior among middle school students, and its importance is evident in :

- Taking physical activity as a preventive method of common behavioral deviations from the students of the intermediate stage.
- Introducing sports activity and the extent of its impact on aggressive behavior and the relationship between it and the middle school student.
- Knowing the factors that affect the student's behavior.
- The role of physical education and sports in addressing aggressive behavior.
- Enriching our knowledge base with information related to physical activity and its impact on student behavior.

### **4- Object ives of the research:**

This research aims to try to verify the validity of the hypotheses that the role of the physical education and sports class in improving some behaviors of students in the intermediate stage, which we wanted to reach through this research:

- Knowing the behaviors of students in the intermediate stage through the physical education and sports class.
- Knowing the most important issues of students and how to address them in the physical education and sports class.
- Putting the educational family on the right path towards knowing the physical sports activity of the educational system in addressing the behavior of students during the intermediate stage.
- The importance of physical activities and their psychological and educational dimensions in the physical education and sports class.

### **5-Method study:**

The research tool that was used was a questionnaire consisting of 15 statements divided into two axes according to the hypotheses set forth in the study, as follows:

The first axis/ Minimizing the attack.

The second axis/ Minimizing Excitability.

It was distributed to 100 students.

## 6-Results:

### Presenting, analyzing and discussing the results:

### Presenting, analyzing and discussing the first hypothesis:

### Presentation of statistical tables for the first hypothesis:

**Hypothesis one:** The physical education and sports class has a role in reducing aggression among middle school students.

Statement (01): Do you assault your classmate when he tries to tease you?

Objective of statement (01): To find out the student's behavior when he is teased by his classmates.

Table No. (01) :  $K^2$  test on the behavior of students when they are teased by their classmates.

| Results Answers | Repetition | %Percentage | $K^2$  | Significance level $\alpha$ | Degree of freedom | Probability of significance sig | Statistical decision      |
|-----------------|------------|-------------|--------|-----------------------------|-------------------|---------------------------------|---------------------------|
| Agree           | 17         | 17          | 57.380 | 0.05                        | 2                 | 0.000                           | statistically significant |
| Neutral         | 14         | 14          |        |                             |                   |                                 |                           |
| don't agree     | 69         | 69          |        |                             |                   |                                 |                           |
| Total           | 100        | 100%        |        |                             |                   |                                 |                           |

Displaying the results of the table: From the previous table, we can see that 17% of students agree to assault their classmates when they try to harass them, while 14% of students are neutral on this opinion, while 69% of students do not agree to assault their classmates when they try to harass them, with a sample size of 100 students from the intermediate stage, and we find the calculated value of " $k^2$ " calculated at 57.380, which is statistically significant and the probability of significance sig is 0.000 at degree of freedom 2 and significance level 0.05.

result: We conclude that most students do not approve of assaulting their classmates when they try to tease them.

Statement (02): Are you able to control your emotions?

Objective of statement (02): To find out the extent to which the student controls his/her emotions.

Table No. (03) : The  $K^2$  test on the extent to which students control their emotions.

| Results Answers | Repetition | %Percentage | $K^2$  | Significance level $\alpha$ | Degree of freedom | Probability of significance sig | Statistical decision      |
|-----------------|------------|-------------|--------|-----------------------------|-------------------|---------------------------------|---------------------------|
| Agree           | 64         | 64          | 52.460 | 0.05                        | 2                 | 0.000                           | statistically significant |
| Neutral         | 31         | 31          |        |                             |                   |                                 |                           |
| don't agree     | 5          | 5           |        |                             |                   |                                 |                           |
| Total           | 100        | 100%        |        |                             |                   |                                 |                           |

Display the results of the table: Through the previous table, we notice that 64% of students agree that they are able to control their emotions, while 31% of students are neutral on this opinion, while 5% of students do not agree that they are able to control their emotions, with a sample size of 100 students from the intermediate level, and we find the calculated value of " $K$ "<sup>2</sup> amounted to 52.460, which is statistically significant and the probability of significance sig is 0.000 at degree of freedom 2 and significance level 0.05.

result: We conclude that most students agree that they are able to control their emotions.

Statement 03: Do your coworkers tease you because you are an aggressive person?

Objective of statement (03): To find out the extent to which students are teased by their classmates.

Table No. (04) : The  $K^2$  test on the extent to which students are teased by their peers.

| Results Answers | Repetition | %Percentage | $K^2$  | Significance level $\alpha$ | Degree of freedom | Probability of significance sig | Statistical decision      |
|-----------------|------------|-------------|--------|-----------------------------|-------------------|---------------------------------|---------------------------|
| Agree           | 12         | 12          | 70.940 | 0.05                        | 2                 | 0.000                           | statistically significant |
| Neutral         | 15         | 15          |        |                             |                   |                                 |                           |

|             |     |      |  |  |  |  |  |
|-------------|-----|------|--|--|--|--|--|
| don't agree | 73  | 73   |  |  |  |  |  |
| Total       | 100 | 100% |  |  |  |  |  |

Display the results of the table: Through the previous table, we notice that 12% of students are harassed by their classmates because they are offensive people, while 15% of students are neutral on this opinion, while 73% of students are not harassed by their classmates because they are offensive people, with a sample size of 100 students from the intermediate level, and we find that the calculated value of " $k^2$ " is 70.940 which is statistically significant and the probability of significance sig is 0.000 at the degree of freedom 2 and significance level 0.05, which is statistically significant.

result: We conclude that most students are not teased by their classmates because they are aggressive people.

Statement (04): When you are angry or agitated, are you willing to attack anyone who provokes your emotions?

Objective of statement (04): To find out the extent to which the student is ready to attack his classmates when they provoke his emotions.

Table (05) : The  $K^2$  test on the extent to which students are willing to attack their classmates when they are triggered by their emotions.

| Results Answers | Repetition | %Percentage | $K^2$  | Significance level $\alpha$ | Degree of freedom | Probability of significance sig | Statistical decision      |
|-----------------|------------|-------------|--------|-----------------------------|-------------------|---------------------------------|---------------------------|
| Agree           | 50         | 50          | 14.660 | 0.05                        | 2                 | 0.001                           | statistically significant |
| Neutral         | 31         | 31          |        |                             |                   |                                 |                           |
| don't agree     | 19         | 19          |        |                             |                   |                                 |                           |
| Total           | 100        | 100%        |        |                             |                   |                                 |                           |

Statement (05): Do you feel uncomfortable with some of your classmates with whom you disagree?

Objective of statement (05): To find out how the student feels when he assaults some of his classmates with whom he does not agree.

Table (06): The  $K^2$  test shows the extent to which students feel uncomfortable when they assault some of their classmates who do not agree with them.

| Results Answers | Repetition | %Percentage | $K^2$ | Significance level $\alpha$ | Degree of freedom | Probability of significance sig | Statistical decision      |
|-----------------|------------|-------------|-------|-----------------------------|-------------------|---------------------------------|---------------------------|
| Agree           | 60         | 60          | 32.06 | 0.05                        | 2                 | 0.000                           | statistically significant |
| Neutral         | 21         | 21          |       |                             |                   |                                 |                           |
| don't agree     | 19         | 19          |       |                             |                   |                                 |                           |
| Total           | 100        | 100%        |       |                             |                   |                                 |                           |

Displaying the results of the table: Through the previous table, we notice that 60% of students feel uncomfortable when they assault some of their classmates who do not agree with them, while 21% of students are neutral on this opinion, while 19% of students do not feel uncomfortable when they assault some of their classmates who do not agree with them, with a sample size of 100 middle school students, and we find the calculated  $K^2$  value of 32%, which is a statistically significant value. 06 which is statistically significant and the probability of significance sig is 0.000 at the degree of freedom 2 and the level of significance 0.05.

result: We conclude that most students feel uncomfortable when they assault some of their classmates who do not agree with them.

Statement (06): Do you think there is a reasonable cause for assaulting a student?

Objective of statement (06): To find out the extent to which the student believes that there is a reasonable cause for assaulting any student.

Table No. (07) : The  $K^2$  test on the extent to which students believe that there is a reasonable cause for assaulting any student.

| Results Answers | Repetition | %Percentage | K <sup>2</sup> | Significance level $\alpha$ | Degree of freedom | Probability of significance sig | Statistical decision      |
|-----------------|------------|-------------|----------------|-----------------------------|-------------------|---------------------------------|---------------------------|
| Agree           | 55         | 55          | 21.500         | 0.05                        | 2                 | 0.000                           | statistically significant |
| Neutral         | 25         | 25          |                |                             |                   |                                 |                           |
| don't agree     | 20         | 20          |                |                             |                   |                                 |                           |
| Total           | 100        | 100%        |                |                             |                   |                                 |                           |

Displaying the results of the table: Through the previous table, we notice that 55% of students believe that there is a reasonable reason to assault any student, while 25% of students are neutral on this opinion, while 20% of students do not believe that there is a reasonable reason to assault any student, with a sample size of 100 students from the intermediate stage, and we find the calculated value of “K”<sup>2</sup> amounted to 21.50, which is statistically significant and the probability of significance sig is 0.000 at the degree of freedom 2 and significance level 0.05.

result: We conclude that most of the students believe that there is a reasonable reason to assault any student.

Statement 07: Do you tend to talk quietly?

Objective of statement (07): To find out the extent to which the student speaks quietly.

Table No. (08) : The K<sup>2</sup> test on the extent to which students speak quietly.

| Results Answers | Repetition | %Percentage | K <sup>2</sup> | Significance level $\alpha$ | Degree of freedom | Probability of significance sig | Statistical decision      |
|-----------------|------------|-------------|----------------|-----------------------------|-------------------|---------------------------------|---------------------------|
| Agree           | 63         | 63          | 40.820         | 0.05                        | 2                 | 0.000                           | statistically significant |
| Neutral         | 14         | 14          |                |                             |                   |                                 |                           |
| don't agree     | 23         | 23          |                |                             |                   |                                 |                           |
| Total           | 100        | 100%        |                |                             |                   |                                 |                           |

Display the results of the table: Through the previous table, we notice that 63% of students agree to talk quietly, while 14% of students are neutral on this opinion, while 23% of students do not agree to talk quietly, with a sample size of 100 students from the intermediate level, and we find that the calculated value of " $K^2$ " amounted to 40.820, which is statistically significant and the probability of significance sig 0.000 at the degree of freedom 2 and significance level 0.05.

result: We conclude that most of the students agree to speak quietly.

View table for: Attack.

Table 09:  $K^2$  test on the role of physical education and sports in reducing aggression among middle school students.

|        | The sample N | $K^2$ | Significance level $\alpha$ | Probability of significance sig | Statistical decision      |
|--------|--------------|-------|-----------------------------|---------------------------------|---------------------------|
| Attack | 100          | 39.04 | 0.05                        | 0.000                           | statistically significant |

Displaying the results of the table: Through the previous table, we note that the value of " $k^2$ " amounted to 39.04 and the value of the probability of significance sig estimated at 0.000, which is statistically significant at the significance level of 0.05 with the sample size was estimated at 100 students from the intermediate stage, and this indicates that the role of physical education and sports classes contributes significantly in reducing aggression among students of the intermediate stage.

#### Discussion of the first hypothesis:

The first hypothesis states that "the physical education and sports class has a role in reducing aggression in middle school students", and the results obtained in the previous tables showed that physical activity contributes significantly to reducing aggression in middle school students. This is through the fact that they speak calmly and do not try to ridicule any student during various discussions and do not attack their colleagues when they try to harass them, as well as do not use offensive words and feel uncomfortable when they attack some of their colleagues who do not agree with them, and they have the ability to control their emotions, and since the significant probability value sig in Table No. (09) amounted to 0. (0.000) and the significance level  $\alpha$  (0.05), by comparing these two values in Table No. (09), we find that the significant probability value sig (0.000) is less than  $\alpha$  (0.05), so we accept

the hypothesis that states that “the physical education and sports class has a role in reducing aggression among middle school students”, and therefore the hypothesis is fulfilled.

**-Presenting, analyzing and discussing the second hypothesis:**

**-Presentation of statistical tables for the second hypothesis:**

**-Hypothesis two:** The physical education and sports class has a role in reducing the arousal of middle school students.

Statement (01): Do you seem nervous and irritable in many situations?

Objective of statement (01): To know the extent of the student's nervousness and irritability in many situations.

Table No. (10) : The  $K^2$  test shows the extent of the student's nervousness and irritability in many situations.

| Results Answers | Repetition | %Percentage | $K^2$  | Significance level $\alpha$ | Degree of freedom | Probability of significance sig | Statistical decision      |
|-----------------|------------|-------------|--------|-----------------------------|-------------------|---------------------------------|---------------------------|
| Agree           | 17         | 17          | 45.140 | 0.05                        | 2                 | 0.000                           | statistically significant |
| Neutral         | 18         | 18          |        |                             |                   |                                 |                           |
| don't agree     | 65         | 65          |        |                             |                   |                                 |                           |
| Total           | 100        | 100%        |        |                             |                   |                                 |                           |

Display the results of the table: Through the previous table, we notice that 17% of students appear nervous and irritable in many situations, while 18% of students are neutral on this opinion, while 65% of students do not appear nervous and irritable in many situations, with a sample size of 100 students from the intermediate stage, and we find the calculated  $k^2$  value of 45.140 which is statistically significant and the probability of significance sig is 0.000 at the degree of freedom 2 and the level of significance 0.05.

result: We conclude that most of the students do not appear nervous and irritable in many situations.

Statement (02): Can you control your emotions in some situations?

Objective of statement (02): To find out the extent to which the student is able to control his emotions in some situations.

Table No. (11) : The  $K^2$  test shows the extent to which students can control their emotions in some situations.

| Results Answers | Repetition | %Percentage | $K^2$  | Significance level $\alpha$ | Degree of freedom | Probability of significance sig | Statistical decision      |
|-----------------|------------|-------------|--------|-----------------------------|-------------------|---------------------------------|---------------------------|
| Agree           | 61         | 61          | 34.820 | 0.05                        | 2                 | 0.000                           | statistically significant |
| Neutral         | 22         | 22          |        |                             |                   |                                 |                           |
| don't agree     | 17         | 17          |        |                             |                   |                                 |                           |
| Total           | 100        | 100%        |        |                             |                   |                                 |                           |

Display the results of the table: Through the previous table, we notice that 61% of students can control their emotions in some situations, while 22% of students are neutral on this opinion, while 17% of students cannot control their emotions in some situations, with a sample size of 100 students from the intermediate stage, and we find the calculated value of " $K$ "<sup>2</sup> amounted to 34.820, which is statistically significant and the probability of significance sig 0.000 at degree of freedom 2 and significance level 0.05.

result: We conclude that most students can control their emotions in some situations.

Statement (03): When your classmates make mistakes, do you manage to control your emotions?

Objective of statement (03): To find out the extent to which the student controls his emotions when his classmate makes a mistake.

Table (12) : The  $K^2$  test on the extent to which students control their emotions when their classmates make mistakes with them.

| Results Answers | Repetition | %Percentage | $K^2$  | Significance level $\alpha$ | Degree of freedom | Probability of significance sig | Statistical decision      |
|-----------------|------------|-------------|--------|-----------------------------|-------------------|---------------------------------|---------------------------|
| Agree           | 64         | 64          | 42.320 | 0.05                        | 2                 | 0.000                           | statistically significant |
| Neutral         | 18         | 18          |        |                             |                   |                                 |                           |

|             |     |      |  |  |  |  |  |
|-------------|-----|------|--|--|--|--|--|
| don't agree | 18  | 18   |  |  |  |  |  |
| Total       | 100 | 100% |  |  |  |  |  |

Displaying the results of the table: From the previous table, we can see that 64% of students agree that when their classmates make mistakes with them, they can control their emotions, while we find 28% of students are neutral on this opinion, while we find 18% of students do not agree that when their classmates make mistakes with them, they can control their emotions. 6 percent of students are neutral on this opinion, while 18 percent of students do not agree that when their classmates make mistakes with them they can control their emotions, with a sample size of 100 students from the intermediate stage, and we find the calculated value of " $\chi^2$ " amounted to 42.320, which is statistically significant and the probability of significance sig 0.000 at the degree of freedom 2 and significance level 0.05.

result: We conclude that most students agree that when their classmates are wrong with them, they can control their emotions.

Statement (04): Are many of your decisions based on your emotions?

Objective of statement (04): To find out whether the student's decisions stem from his/her emotions.

Table (13) : The  $\chi^2$  test on the extent to which students' decisions can stem from their emotions.

| Results Answers | Repetition | %Percentage | $\chi^2$ | Significance level $\alpha$ | Degree of freedom | Probability of significance sig | Statistical decision      |
|-----------------|------------|-------------|----------|-----------------------------|-------------------|---------------------------------|---------------------------|
| Agree           | 58         | 58          | 28.340   | 0.05                        | 2                 | 0.000                           | statistically significant |
| Neutral         | 25         | 25          |          |                             |                   |                                 |                           |

|             |     |      |  |  |  |  |  |
|-------------|-----|------|--|--|--|--|--|
| don't agree | 17  | 17   |  |  |  |  |  |
| Total       | 100 | 100% |  |  |  |  |  |

Displaying the results of the table: From the previous table, we can see that 58% of students' decisions are based on their emotions, while 25% of students are neutral on this opinion, while 17% of students do not base their decisions on their emotions, with a sample size of 100 students from the intermediate level, and we find that the calculated value of " $K^2$ " is 28.340, which is statistically significant and the probability of significance sig is 0.000 at the degree of freedom 2 and significance level 0.05.

result : We conclude that most of the students' decisions are based on their emotions.

Statement (05): In difficult situations, do you not show confusion and disorientation?

Objective of statement (05): To find out the extent to which the student shows confusion and disorientation in difficult situations.

Table No. (14) : The  $K^2$  test shows the extent to which students show confusion and disorientation in difficult situations.

| Results Answers | Repetition | %Percentage | $K^2$  | Significance level $\alpha$ | Degree of freedom | Probability of significance sig | Statistical decision      |
|-----------------|------------|-------------|--------|-----------------------------|-------------------|---------------------------------|---------------------------|
| Agree           | 91         | 91          | 150.02 | 0.05                        | 2                 | 0.000                           | statistically significant |
| Neutral         | 7          | 7           |        |                             |                   |                                 |                           |
| don't agree     | 2          | 2           |        |                             |                   |                                 |                           |
| Total           | 100        | 100%        |        |                             |                   |                                 |                           |

Displaying the results of the table: Through the previous table, we notice that 91% of students agree that in difficult situations they do not show confusion, while 7% of students are neutral on this opinion, while 2% of students agree that in difficult situations they show confusion, with a sample size of 100 students from the intermediate stage, and we find the calculated value of " $K^2$ " amounted to 150.02, which is statistically significant and the probability of significance sig is 0.000 at the degree of freedom 2 and significance level 0.05.

result: We conclude that most of the students agree that in difficult situations they do not show confusion and disorientation.

Statement (06): Do you lose your temper to the point of throwing things in front of you?

Objective of statement (06): To find out the possibility of the student throwing things in front of him when he loses his temper.

Table (16) :  $K^2$  test on the possibility of students throwing objects in front of them when they lose their temper.

| Results Answers | Repetition | %Percentage | $K^2$  | Significance level $\alpha$ | Degree of freedom | Probability of significance sig | Statistical decision      |
|-----------------|------------|-------------|--------|-----------------------------|-------------------|---------------------------------|---------------------------|
| Agree           | 12         | 12          | 52.220 | 0.05                        | 2                 | 0.000                           | statistically significant |
| Neutral         | 21         | 21          |        |                             |                   |                                 |                           |
| don't agree     | 67         | 67          |        |                             |                   |                                 |                           |
| Total           | 100        | 100%        |        |                             |                   |                                 |                           |

Display the results of the table: From the previous table, we notice that 12% of students lose their nerves to the point of throwing things in front of them, while 21% of students are neutral on this opinion, while 67% of students do not lose their nerves to the point of throwing things in front of them, with a sample size of 100 students from the intermediate stage, and we find the calculated value of " $K$ " <sup>2</sup> calculated as 52.220, which is statistically significant and the probability of significance sig is 0.000 at degree of freedom 2 and significance level 0.05.

result: We conclude that most students do not lose their temper to the point that they throw things that are in front of them.

Statement (07): Are you easily provoked directly?

Objective of statement (07): To find out how easy it is to provoke the student directly.

Table (17) : The  $K^2$  test on how easy it is to provoke students directly.

| Results Answers | Repetition | %Percentage | K <sup>2</sup> | Significance level $\alpha$ | Degree of freedom | Probability of significance sig | Statistical decision      |
|-----------------|------------|-------------|----------------|-----------------------------|-------------------|---------------------------------|---------------------------|
| Agree           | 56         | 56          | 26.06          | 0.05                        | 2                 | 0.000                           | statistically significant |
| Neutral         | 15         | 15          |                |                             |                   |                                 |                           |
| don't agree     | 29         | 29          |                |                             |                   |                                 |                           |
| Total           | 100        | 100%        |                |                             |                   |                                 |                           |

View table results: Through the previous table, we notice that 56% of students are easy to provoke directly, while 15% of students are neutral on this opinion, while 29% of students are not easy to provoke directly, with a sample size of 100 students from the intermediate stage, and we find the calculated value of " $K^2$ " amounted to 26.06, which is statistically significant and the probability of significance sig 0.000 at the degree of freedom 2 and the level of significance 0.05.

result: We conclude that most students are easily provoked directly.

Statement (08): When you get angry, does it show on your face?

Objective of statement (08): To find out the extent to which anger is visible on the student's face.

Table No. (18) : The  $K^2$  test on the extent to which anger appears on the students' faces clearly.

| Results Answers | Repetition | %Percentage | K <sup>2</sup> | Significance level $\alpha$ | Degree of freedom | Probability of significance sig | Statistical decision      |
|-----------------|------------|-------------|----------------|-----------------------------|-------------------|---------------------------------|---------------------------|
| Agree           | 72         | 72          | 68.240         | 0.05                        | 2                 | 0.000                           | statistically significant |
| Neutral         | 10         | 10          |                |                             |                   |                                 |                           |
| don't agree     | 18         | 18          |                |                             |                   |                                 |                           |

|       |     |      |  |  |  |  |  |
|-------|-----|------|--|--|--|--|--|
| Total | 100 | 100% |  |  |  |  |  |
|-------|-----|------|--|--|--|--|--|

Displaying the results of the table: From the previous table, we notice that 72% of students agree that when they are angry, it shows on their faces clearly, while 10% of students are neutral on this opinion, while 18% of students do not agree that when they are angry, it shows on their faces clearly, with a sample size of 100 students from the intermediate stage, and we find that the calculated value of " $K^2$ " is 68.24, which is statistically significant and the probability of significance sig is 0.000 at degree of freedom 2 and significance level 0.05.

result: We conclude that most of the students agree that when they get angry, it shows on their faces clearly.

Statement (09): Do you talk to your colleagues in a positive way?

Objective of statement (09): To find out the extent to which the student addresses his/her classmates in a positive manner.

Table No. (19) :  $K^2$  test on the extent to which students address their classmates in a positive manner.

| Results Answers | Repetition | %Percentage | $K^2$  | Significance level $\alpha$ | Degree of freedom | Probability of significance sig | Statistical decision      |
|-----------------|------------|-------------|--------|-----------------------------|-------------------|---------------------------------|---------------------------|
| Agree           | 74         | 74          | 74.960 | 0.05                        | 2                 | 0.000                           | statistically significant |
| Neutral         | 10         | 10          |        |                             |                   |                                 |                           |
| don't agree     | 16         | 16          |        |                             |                   |                                 |                           |

|       |     |      |  |  |  |  |  |
|-------|-----|------|--|--|--|--|--|
| Total | 100 | 100% |  |  |  |  |  |
|-------|-----|------|--|--|--|--|--|

Displaying the results of the table: Through the previous table, we notice that 74% of students address their classmates in a positive way, while 10% of students are neutral on this opinion, while 16% of students do not address their classmates in a positive way, with a sample size of 100 students from the intermediate level, and we find the calculated value of " $K^2$ "<sup>2</sup> amounted to 74.960 which is statistically significant and the probability of significance sig is 0.000 at degree of freedom 2 and significance level 0.05.

result: We conclude that most students address their classmates in a positive manner.

View table for: Excitability.

Table No. (20) :  $K^2$  test on the role of physical activity in reducing arousal in middle school students.

|              | The sample N | $K^2$  | Significance level $\alpha$ | Probability of significance sig | Statistical decision      |
|--------------|--------------|--------|-----------------------------|---------------------------------|---------------------------|
| Excitability | 100          | 43.600 | 0.05                        | 0.000                           | statistically significant |

Displaying the results of the table: Through the previous table, we note that the value of " $k^2$ " amounted to 43.60 and the value of the probability of significance sig estimated at 0.000, which is statistically significant at the significance level of 0.05 with the sample size was estimated at 100 students from the intermediate stage, and this indicates that the role of physical education and sports class contributes significantly in reducing the arousal of students in the intermediate stage.

#### **Discussion of the second hypothesis:**

The second hypothesis states that "the physical education and sports class has a role in reducing the arousal of middle school students." The results obtained from the tables showed that physical activity contributes significantly to reducing the arousal of middle school students, and this is through addressing their colleagues in a positive way and their ability to control their emotions and do not appear nervous and jittery

in many situations, as well as not losing their nerves to the point of throwing things and showing They are able to control their emotions and do not appear nervous and jittery in many situations, they do not lose their nerves to the point that they throw things and do not appear confused and confused, and their various decisions stem from their emotions, and since the significant probability value sig in Table No. (20) amounted to 0. (0.000) and the significance level  $\alpha$  (0.05), by comparing these two values in Table 22, we find that the significant probability value sig (0.000) is less than  $\alpha$  (0.05), so we accept the hypothesis that states that “the physical education and sports class has a role in reducing arousal in middle school students” and therefore the hypothesis is fulfilled.

### **7-Conclusion:**

Educational physical activity is one of the types of sports activities that have an effective role in the development of the student in many aspects, physical, social, psychological and through the theoretical knowledge and our findings through the study tool that aimed to know the role of the physical education and sports class in reducing aggressive behavior among middle school students, where this study is a contribution to the field of education and care for students, especially in the school environment in the presence of a concept known as aggressive behavior represented in two main points that result from it, meaning what is known as aggression and irritability, the middle school stage.

In order to achieve all this requires proper educational and professional guidance and this is primarily due to the physical education teacher, who must be well aware and do his job in the best way towards this activity and take into account the motives of students and their desires in sports practice to support and guide them so that he can succeed in his work, as well as fighting all indicators that lead to the presence of aggressive behavior, and we reached at the end of our study a set of results that may be a reason to fight this negative phenomenon that has become widespread in the educational environment, even if little, and these results were as follows:

- The physical education and sports class has a role in reducing aggression among middle school students.
- The physical education and sports class has a role in reducing arousal in middle school students.
- Physical activity helps middle school students to control their various emotions.

### **8-Refferances:**

1. Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual review of psychology*, 53(1), 27-51.

2. Bak, M., Fransen, A., Janssen, J., van Os, J., & Drukker, M. (2014). Almost all antipsychotics result in weight gain: a meta-analysis. *PloS one*, 9(4), e94112.
3. Caspersen, C. J., Powell, K. E., & Christenson, G. M. (1985). Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research. *Public health reports*, 100(2), 126.
4. Fite, P. J., & Vitulano, M. (2011). Proactive and reactive aggression and physical activity. *Journal of Psychopathology and Behavioral Assessment*, 33, 11-18.
5. Haudenhuyse, R. P., Theeboom, M., & Skille, E. A. (2014). Towards understanding the potential of sports-based practices for socially vulnerable youth. *Sport in Society*, 17(2), 139-156.
6. Hamza, A., Gharakheili, H. H., Benson, T. A., & Sivaraman, V. (2019, April). Detecting volumetric attacks on IoT devices via sdn-based monitoring of network activity. In *Proceedings of the 2019 ACM Symposium on SDN Research* (pp. 36-48).
7. Moore, K. L., Dalley, A. F., & Agur, A. M. (2017). *Anatomie médicale: aspects fondamentaux et applications cliniques*. De Boeck Supérieur.
8. Schoeler, T., Duncan, L., Cecil, C. M., Ploubidis, G. B., & Pingault, J. B. (2018). Quasi-experimental evidence on short-and long-term consequences of bullying victimization: A meta-analysis. *Psychological bulletin*, 144(12), 1229.