Determining the difference of aggression in Male & Female, athlete and non-athlete students

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Abstract

The basic question in this research was that, whether participation in sport & competitions reduce aggression or not. 697 guidance school students in Kashmar city (including 4 groups of Male Athlete (MA), Male Non-Athlete (MN), Female Athlete (FA), Female Non-Athlete (FN)) was selected as statistical sample and examined by aggression questionnaire (AGQ) with 3 sub-factors of invasion, violence and stubborn. Mean and standard deviation of aggression in MA, MN, FA, and FM groups was 2.76±0.58, 2.19±0.26, 2.53±0.45 and 2.56±0.37 by sequence. Also Means and standard deviations of 3 sub-factors of aggression in 4 groups were got. Data analysis illustrated significant differences in aggression between athlete and non-athlete students. Results showed that there wasn't significant difference between male and female students in aggression (P=0.433) but differences between males and females in 3 sub-factors of invasion, violence and stubborn were significant (P<0.001, P<0.001 and P=0.002 by sequence). Finally, the interactive effect of sportsmanship and gender were effective on aggression and to sub-factors of invasion and violence (P<0.001, P<0.001 and P=0.003 by sequence).

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1. Introduction

With no doubt, all human activities can be considered from two physiological and mental prospects and considering the important role of mental aspects of human behavior and activities, study and giving value for of psychological issues are very important (Jarviss, 1991).

The term "Aggression" includes large range of various behaviors; but it is mostly used for violent behaviors such as fight or quarrel. Majority of psychologists define "aggression" as: a behavior that someone by using it tries to harm others by words or tools (i.e. body organs or instruments) (Allah Gholipour, 1999). There are two different types of aggression: hostile aggression and instrumental aggression. Instrumental aggression aims to achieving particular goals. There are also various theories about aggression in sport including theories of innate aggression and

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learned aggression which declares that aggression is a learnable behavior or the theory of failure - which considers aggression as a result of failure in achieving one's objectives. (Anne Marie Bird, 1985)

Aggression is one of the most important issues in teenagers (Nangle, Erdley, Carpenter, Newman, 2002). Consequences of these behaviors on teenagers such as creating negative image among coevals and teachers, proscription by coevals, bad effects on education, drug abuse, and guiltiness have attracted researchers attention to this issue (Lochman, Wayland, 1994). Teenagers with aggressive behavior usually don't have ability to control their behavior and easily break customs and values of the community that they live in. In most cases, parents and school authorities oppose these behaviors and sometimes these behaviors result in exclusion from the school (Sadeghi, Ahmadi and Abedi, 2001).

Viewpoints about aggression in sport usually have two sides. In one side according to Russel, at the periods of peace (not war), sport venues are the only places that aggression not only is permitted but also encouraged in them. In other side, there are many courtrooms that convict athletes for their deliberate aggressive behaviors and harm to other athletes. One of the reasons of these two opposite sides is that our interpretations of aggression are very different in various situations (Jarviss, 1991).

Thus, so many researchers tried to give a more clear definition of aggression and define aggression as: "any kind of behavior that aims to physical or mental harm to others deliberately." (Bredemeier, Shields, 1993) Although this definition can be useful in most situations, but existing issues in sport are very complicated and need to be investigated and determined. There are three criteria in sport for analyzing violence and aggression:

a) Between fans and spectators of the sport events
b) From spectators against athletes
c) Violence and aggression that occur between athletes (Higgins A. Power & Kohlberg’s, 1984)

In this study, we will examine the aggression between athlete and non-athlete students.

Studying aggression in sport is important because of a variety of reasons. Social sciences researchers usually argue that sport is a reflection of the community. Though, it is said that sport is a smaller sample of the greater community. Nowadays, unfortunately, dominance of aggressive behaviors of athletes and spectators become more. Many studies have conducted in this regard. March et al (1991) contrasted non-athletes with track and field athletes and demonstrated that athletes are introvert and musing and show lower levels of aggression and anger. Morgan and castle (1996) found that athletes in contrast with non-athletes have lower levels of aggression and studies of Fletcher & dowel (1971) and valiant et al. about college athletes showed that athletes are more aggressive than non-athletes. Other researchers, compared women athletes and non-athletes and concluded that athlete women have higher levels of aggression in contrast with non-athletes.

Filho and others (2005) studies indicated a significant difference between athletes and non-athletes and also marshal sports in the aggression level. Dobosz and Beaty (1999) showed a lower aggression level in Track Field athletes in comparison to non-athletes.

Fuller (1988) expressed that athletes of martial arts show more aggressive behaviors than non-athletes. Other researchers have reported less aggressive behavior among athletes of martial arts.

Study of MasoodNia (2007) demonstrated that athletes of martial arts have lower levels of aggression in contrast with non-athletes.

2. Methodology:

This research is a descriptive research and a field research. Statistical population was the students of guidance school in Kashmar city (N=12000). By using of cluster sampling, 679 people including 344 males student (158 athletes, 186 non-athletes), 353 females student (184 athletes, 169 non-athletes) were as sample.

Data collection tool of this study was demographic questionnaire which we collected information like sex, age, grade and etc by using that and in addition, aggression questionnaire of AGQ were used for measuring students aggression. This questionnaire includes 30 questions divided into 3 categories: 1) invasion 2) violence 3) stubborn. This questionnaire is created by ZahediFar and Najjarian in the Islamic Azad University (Ahvaz branch) in 1998.
The results of the study indicated that first 14 questions were about invasion, and the followed 8 question were about violence and the last 8 question were about stubborn. The validity of this questionnaire is proved by Najjarian and Zahedi far in 1998 on scales of hostility and guilt of Bass-Dorkey 1975, BVDI, and MMPI. The correlation coefficient of aggression questionnaire is reported \( r = 0.56 \) for all, \( r = 0.49 \) for girls and \( r = 0.59 \) for boys with significant level of \( P < 0.001 \). The reliability is determined through Cronbach’s Alpha (\( \alpha = 0.87 \)).

First the aggression rate of AGQ and 3 categories of invasion, violence and stubborn were measured by mean and standard deviation. The 2 way ANOVA test is used to examine the effect of sportsmanship, sex and their interactive effect on aggression and its 3 categories. SPSS v.18 software is used for data analyze.

3. Result

<table>
<thead>
<tr>
<th>Groups</th>
<th>Female</th>
<th>Male</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>non-athlete</td>
<td>athlete</td>
<td>non-athlete</td>
<td>athlete</td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>186</td>
<td>158</td>
<td>169</td>
<td>184</td>
<td></td>
</tr>
<tr>
<td>Mean and Standard deviation of aggression</td>
<td>2.196±0.265</td>
<td>2.765±0.581</td>
<td>2.565±0.376</td>
<td>2.534±0.459</td>
<td></td>
</tr>
<tr>
<td>Mean and Standard deviation of violence</td>
<td>2.162±0.303</td>
<td>2.593±0.679</td>
<td>2.133±0.356</td>
<td>1.997±0.406</td>
<td></td>
</tr>
<tr>
<td>Mean and Standard deviation of invasion</td>
<td>2.115±0.445</td>
<td>3.032±0.637</td>
<td>2.907±0.503</td>
<td>3.050±0.554</td>
<td></td>
</tr>
<tr>
<td>Mean and Standard deviation of stubborn</td>
<td>2.336±0.431</td>
<td>2.798±0.673</td>
<td>2.978±0.624</td>
<td>2.960±0.749</td>
<td></td>
</tr>
</tbody>
</table>

According to table #1 the aggression mean in athlete is lower than non-athletes. Furthermore the mean of violence and stubborn components are lower in athlete females in comparison to non-athletes females. Generally the highest aggression rate is reported for non-athlete males, the lowest violence rate is reported for athlete female and the lowest stubborn rate is reported for athlete males.

2 components of sportsmanship and sex, and their interactive effect on aggression and 3 components of invasion, violence and stubborn were proposed in this study. The 2 way ANOVA test is used in this study and the results are displayed in table-2:

<table>
<thead>
<tr>
<th>Groups</th>
<th>sportsmanship</th>
<th>Gender</th>
<th>Interaction effect of gender &amp; sportsmanship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggression (AGQ)</td>
<td>P=0.003</td>
<td>P=0.433</td>
<td>P=0.001</td>
</tr>
<tr>
<td>violence</td>
<td>P=0.114</td>
<td>P=0.001</td>
<td>P=0.003</td>
</tr>
<tr>
<td>invasion</td>
<td>P=0.001</td>
<td>P=0.001</td>
<td>P=0.001</td>
</tr>
<tr>
<td>stubborn</td>
<td>P=0.086</td>
<td>P=0.002</td>
<td>P=0.063</td>
</tr>
</tbody>
</table>

The findings indicated that there was a significant difference between two groups of athlete and non-athlete's aggression (\( P=0.003 \)). Moreover there is a significant difference in invasion component between two athlete and non-athlete groups (\( P=0.001 \)). However, no significant difference is observed between athlete and non-athlete's violence component (\( P>0.005 \)). In the other hand, there is no significant difference in aggression structure between two groups of male and female (\( P>0.05 \)), but there is a significant difference in violence component (\( P=0.001 \)), stubborn component (\( P=0.002 \)) and invasion component (\( P=0.001 \)) between males and females.

Also, the outputs of 2 way ANOVA test in table-2 indicated that interactive effect of sportsmanship and sex significantly different in aggression structure (\( P=0.001 \)) and 2 components of violence (\( P=0.003 \)) and stubborn (\( P=0.001 \)).
4. Discussion

The aim of this study was to examine the aggression differences between athlete and non-athlete males and females. According to the findings, aggression structure has a significant difference between 2 groups of athlete and non-athlete. These findings prove the relationship of physical performance and aggression. A verity of researches has done on the comparison of psychological structures of the students who participate in sport with those that do not participate in sport, and most of them concluded that physical activities improve these components and generally increase social skills in students. In this research, results agree with the results of Fuller (1988), Morgan and Costill (1996) and Szabo and Parkin (2001) and Masoudnia (2007), however it is against of Filho (2005) and Lemieux (2004) and Fletcher and Dowell (1971) researches. In the component of invasion, there is a significant difference between two groups of athlete and non-athlete male and females as this difference is more evident in females, we can conclude that physical activity affects the student's invasion behaviors. There is no significant difference in every component of invasion, violence and stubborn between males and females. It means however aggression doesn't differ between males and females, the sex separately affects every component of invasion, violence and stubborn. Because of the most important era of childhood and adolescence passed at school by interactions with peers and mentors along with physical and social movement, education through sports can be a useful instrument toward prevention of many features of abnormalities.

References

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