

Anger and Athletics: The Association between Sports and Aggression

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Background

- The association between playing combat sports (boxing, wrestling, martial arts) and “real world” aggression—aggression outside of the sport—is relatively inconsistent ⁷.
- In one study, participation in martial arts and other so-called “power sports” (boxing, wrestling, weightlifting) led to an increase in “real world” aggression ¹.
- Other studies point to no association between young males’ participation in combat sports and aggression ^{4, 8}.
- On the whole, however, combat sports provide beneficial effects to well-being and self-esteem and to the reduction of anger and “real world” aggression in youth and adolescents ^{3, 5, 6}.
- A recent literature review found that there was no difference in these beneficial effects across age groups and gender. All age groups and both genders experienced reduced “real world” aggression ⁷.
- Research on the association between high contact sports (football, basketball) and low contact sports (track, baseball) and aggression revealed that high school athletes participating in high contact sports displayed significantly more aggressive responses than those participating in low contact sports ².
- The present study hopes to gain greater clarity with respect to the association between playing combat, contact, and non-contact sports and aggression and whether or not an effect is specific by gender or generalized.

Research Questions

- 1) Does participation in combat or contact sports influence “real world” aggression—aggression outside of the sport?
- 2) Does playing sports, in general, whether combat, contact, or non-contact, influence “real world” aggression?

Methods

Sample:

This study used data from the first wave of the in-home questionnaire from the National Longitudinal Study of Adolescent Health (Add Health) taken between 1994 and 1995. A sample size of 6,504 adolescents in grades 7 through 12 was used for this study.

Measures:

“Real world” aggression was measured by the variable *getting into a physical fight* one or more times. An *active athlete* was one that played an active sport, such as baseball, softball, basketball, soccer, swimming, or football, 3 or more times a week. A *non-active athlete/non-athlete* was one that played an active sport 2 or less times per week. An *active exerciser* was one that exercised, such as jogging, walking, karate, jumping rope, gymnastics, or dancing, 3 or more times a week. A *non-active exerciser/non-exerciser* was one that exercised 2 or less times per week.

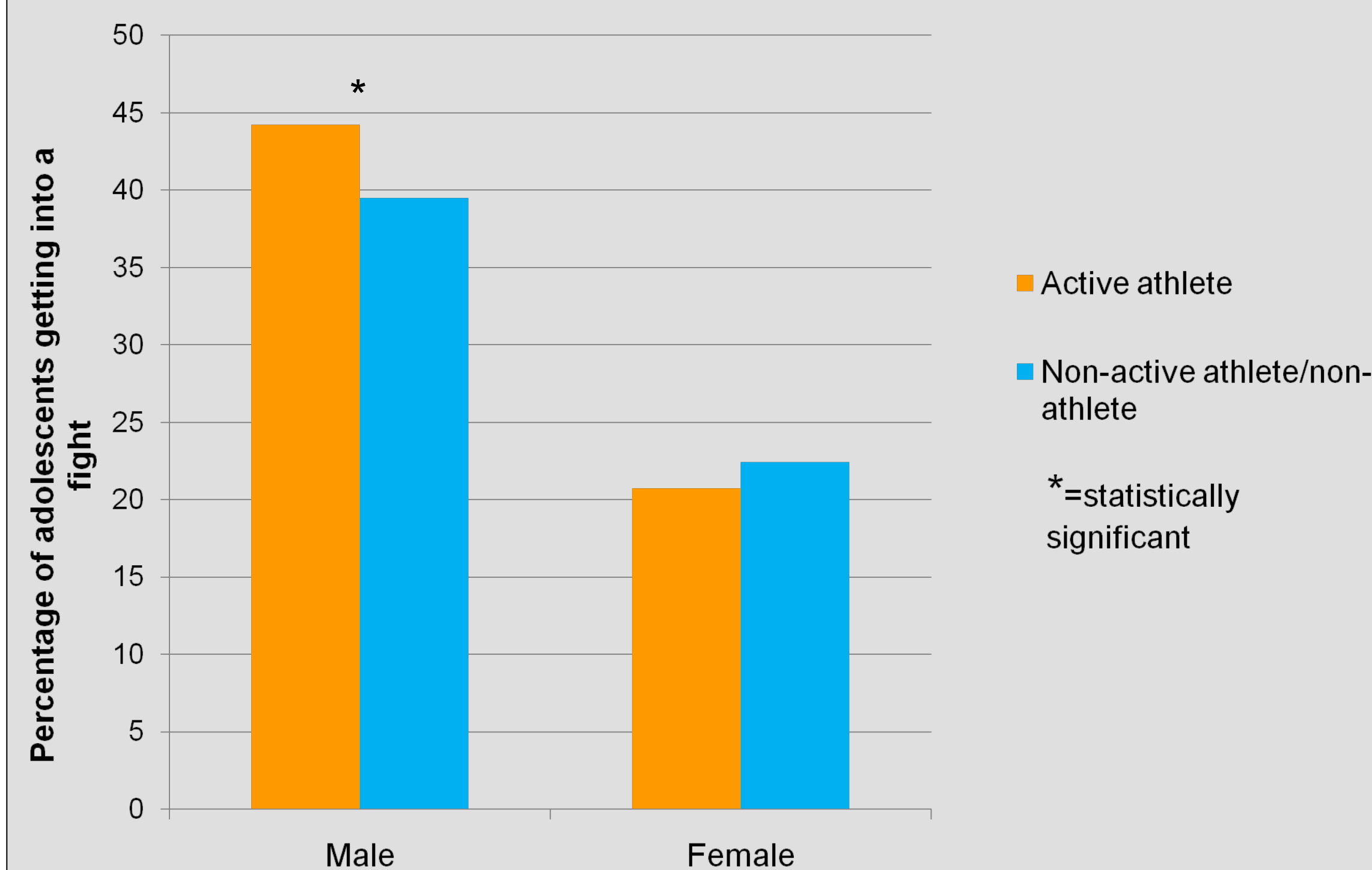
Analyses

Chi square analysis was used to examine the association between playing an active sport and the percentage of the population that got into a physical fight. Chi square analysis was also used to examine the association between exercising and the percentage of the population that got into a physical fight.

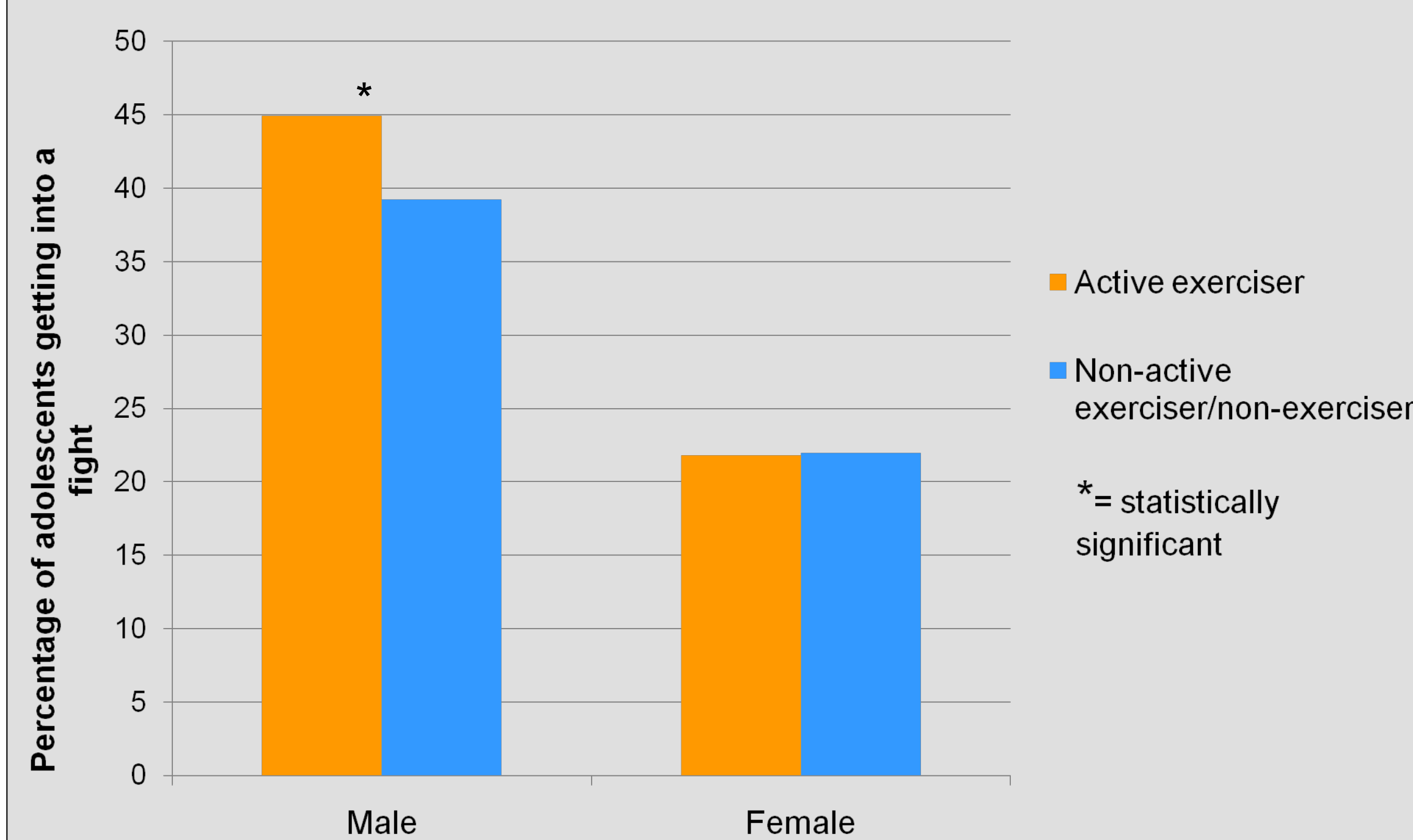
A logistic regression model was used to measure the association between playing an active sport and aggression while controlling for gender and exercising. A logistic regression model was also used to measure the association between exercising and aggression while controlling for sex and playing an active sport.

Results

Playing an Active Sport and Aggression



Exercising and Aggression



Chi square analysis revealed that there was a significant association between males playing active sports and getting into a fight ($p=0.0082$). The association was not significant for females playing active sports and getting into a fight ($p=0.2655$). Chi square analysis also revealed that there was a significant association between males exercising and getting into a fight ($p=0.0012$). The association was not significant for females exercising and getting into a fight ($p=0.9091$).

Approximately 44% of males who were active athletes got into a fight, and approximately 40% of males who were non-active athletes/non-athletes got into a fight. Approximately 45% of males who were active exercisers got into a fight, and approximately 39% of males who were non-active exercisers/non-exercisers got into a fight.

A logistic regression model of males only revealed that after controlling for sex and exercising males who were active athletes were 1.16 times more likely to get into a fight than non-active athletes/non-athletes (odds ratio=1.16, $p=0.0491$). A logistic regression model of males only also revealed that after controlling for sex and playing active sports males who were active exercisers were 1.224 times more likely to get into a fight than non-active exercisers/non-exercisers (odds ratio=1.224, $p=0.0069$).

Conclusion and Implications

The results of this study support an association between increased activity level and increased aggression among male adolescents. The association was not significant among female adolescents. It is interesting to note that for males both being an active athlete and being an active exerciser was associated with an increased likelihood of getting into a fight. This rules out the possibility that increased likelihood of getting into a fight is dependent upon playing an active sport. Variables that could not be controlled for, such as testosterone levels, could be confounding factors that influence the association. More research needs to be conducted into the association between playing contact sports, such as hockey, football, and rugby, and levels of aggression to more definitively answer whether or not playing contact sports increases or decreases aggression. The same is true for the association between participating in combat sports and levels of aggression because the results still remain inconsistent, and this study was not able to specifically examine an association between playing a combat sport and aggression. Further research into these areas is very important because if an association is found such a result could lead to the reexamination and restructuring of youth and adolescent athletic participation and programs.

Limitations

This study was limited by the fact that individual sports could not be examined and controlled for to further subdivide the active sport and exercise sections to see if participation in specific sports or exercise activities influenced aggression.

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