Effect of Sports Participation on Academic Achievements among Boys

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Abstract
Aim: To determine effects of Sports Participation on Academic Achievements among males. Material and Method: The study was conducted on 300 male students between 14-17 years. Sports Participation questioners and GPA at school were used to determine the Sports Activity participation and Academic achievement respectively. Results: The mean GPA in Team sports, Individual sports and the non-participant group is 3.554, 3.534 and 3.408 respectively and SD value within groups are 0.281, 0.281 and 0.314 respectively. One-way ANOVA shows significant P-value 0.000798. Conclusion: The increased sports participation has significant benefits to students’ grades.

Key Words: Mental health, Sports performance, Activity, Cognitive skills, Academic achievements, Grades

Introduction
Children’s engagement in sports competition is known to contribute to the developmental outcomes for a healthy lifestyle, where children learn about physical, social and cognitive skills (Choi et al, 2014). More broadly, engagement in physical activity is also recognized to contribute a range of positive outcomes, specifically; physical and mental health, social wellbeing, cognitive and academic performance (Bailey et al, 2013). Removing or reducing physical activity classes from the school day may be detrimental to children’s physical and mental health as research indicates that school day physical activity is associated with total daily physical activity (Trudeau and Shepard, 2008). High school athletes receive better grades (Darling et al., 2005; Eccles & Barber, 1999; Eitle & Eitle, 2002; Silliker & Quirk, 1997), have higher educational and occupational aspirations (Darling et al., 2005; Marsh & Kleitman, 2002; Otto & Alwin, 1977; Sabo et al., 1993), spend more time doing homework (Marsh & Kleitman, 2002), and have a more positive attitude towards school (Darling et al., 2005; Eccles & Barber, 1999) than non-athletes, it is not clear if these correlations reflect causal relationships or are driven, in whole or in part, by unmeasured heterogeneity. Students with high participation in school-based physical activities and students with more than 5 bouts per week MVPA were more likely to earn higher grades. (Nelson and Gordon-Larsen, 2006). Surprisingly effects of specific sports and selected nutrition on intelligence and academic achievement are somewhat under studied in the developing countries like India. More local and empirical studies need to be conducted to ascertain further details about academic achievement and sporting activity. Hence the relationships between sports participation and academic achievement are studied in this endeavor.
Material and methods
The scientific quality of the research findings depends upon research design. It is also known as a blue print of research engineer which tells the researcher what to do and what not to do while chalk ing out the steps to be taken in sequential manner for collecting, analyzing the empirical data for the sake of verification of research hypothesis. Hence for selecting a suitable research design for the present investigation, the hypotheses were taken into the consideration. Therefore, for verification of the relation-oriented hypotheses, correlation design considered which includes comparative design also. Contrasted group design and factorial group design used for verification of differential and interactional hypotheses. The present study was conducted on 300 male subjects between age group 14 to 17 years. A detail of the study was explained to each participant and their respective parents and signed consent was taken from them. Screening and evaluation carried out on the basis of inclusion and exclusion criteria. Subjects were further divided into following three groups:

Group-1 (Team Sports) 100
Group-2 (Individual Sports) 100
Group-3 (Non-Participation) 100

To assess the type of sports played by the selected subjects were assessed using a child behavior checklist in which students answered questions regarding three favorite extracurricular activities participated by subject which were coded as being team sports (i.e. soccer, cricket, hockey, football etc.) individual sports (i.e. Swimming, biking, skateboard etc.) or no sports if activities listed were not athletics. The academic achievement of the selected subjects was assessed using a teacher report on GPA Scores in school exams.

Results
The mean GPA in Team sports, Individual sports and the non-participant group is 3.554, 3.534 and 3.408 respectively. And SD value within groups is 0.281, 0.281 and 0.314 respectively. One-way ANOVA shows significant value i.e. P-value 0.000798.

| Groups                  | Means  | SD    | ANOVA (p-value) |
|-------------------------|--------|-------|-----------------|
| Group-1 (Team Sports)   | 3.554  | 0.282 |                 |
| Group-2 (Individual Sports) | 3.534  | 0.280 | 0.000798        |
| Group-3 (Non-Participation) | 3.408  | 0.315 |                 |

Figure 1. Mean Grade Point Assessment (GPA) of different groups
Discussion
It can therefore be concluded that participation in sports was not negatively associated with the academic achievement of intermediate students as there was no significant difference found between the grades of sports and non-sports participants. Sports participation was not significantly associated with higher academic grades. Although participation in sports was positively associated with academic achievement for male participants; there was no significant difference between the mean grades of participants i.e. Team and individual sports group.

The majority of prior studies studying the effect of participation in sports on a student’s academic achievement have found that students grades are either not affected at all or they are significantly higher when participating in a sport. The results of the current study are consistent with those of other studies as no significant differences were found in student’s grades when comparing the mean grades of sports participants with the mean grade of non-sports participants.

The second implication is that students who participate in sports generally do better than students who do not. The support for this statement lies in the Mean GPA of students who reported playing a sport compared with those who reported no sports involvement. Therefore, if students who participate in sports do actually do better academically than non-participants.

The current results should, however, be interpreted with caution because the relationship that is found between the variables is not a causal one. For this reason, the results could be interpreted in two ways, one of which was that participation in sports results in higher mean grades for males. However, it may be that male students that do well at school and obtain high mean grades, and high maths grades, are more likely to participate in sports. Similarly, it may be that students who achieve higher mean grades are more likely to engage in sports more times a week than students that get lower grades.

Similar to other studies, the current study’s results found that participating in sports did not negatively impact a student’s academic achievement. Furthermore, consistent with previous research (Fox et al., 2010; Linder, 2002) significant positive effects were only found for male sports participants. Additionally, two studies (Chomitz et al., 2009; Stephens and Schaben, 2002) found a significant positive effect on maths grades which was consistent with the current studies results for males. Stephens and Schaben (2002) also found that female sports participants outperformed male sports participants, which was also the case for the current study in English grades.

Conclusion
Many parents and school personnel alike raise the question of whether participating in a sport has a negative or positive impact of their academic achievement. The results of this study examined this effect and found that sports participation does not negatively impact a student’s grades, but in fact students in team sports are more likely to get higher overall grades. Future research is needed in the areas of use of more objective data and demographics, which would increase generalizability. However, these results suggest that increased sports participation is beneficial to students’ grades.

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Conflict of Interest: None declared