The effect of participation in competitive sports on school connectedness of secondary school students

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Abstract

The purpose of the study was to determine the effects of participation in competitive sports on school connectedness among secondary school students. The demographics of gender, age, class, school type, school status and athletic status (participation/non participation in sport) were treated as independent variable while school connectedness was treated as the dependent variable. The study employed a descriptive survey design. The study employed stratified random sampling to select 26 schools while simple random sampling was used to select 384 students. Data were collected through questionnaires and analysed using descriptive statistics of percentages, means and standard deviations and inferential statistics of t-tests and ANOVA. The study established that gender (t₃₄₀=0.64, p>0.51) and class level (t₃₄₀=-1.25, p>0.21) did not have any significant differences on students’ connectedness to school. However, the study findings revealed that age (F₄, ₃₄₂=2.70, p<0.031) school type (F₃,₃₄₂=7.20,p<0.00) and school status(F₂,₃₃₆=0.60,p<0.021) had a significant effect on students’ connectedness to school. It was recommended that competitive sports be emphasized in secondary schools to promote school connectedness. The study also recommended adequate provision of sporting facilities to all schools so as to enhance school connectedness.

Keywords: Commitment, sports and school connectedness.

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Introduction

School connectedness is the psychological state of belonging in which individual students perceive that they and other students are well taken care of, trusted and appreciated by a group of adults (Whitlock, 2006). Similarly, Blum (2005), opined that school connectedness is influenced through individuals (student and staff), environment (school climate and school boarding) and the culture of the school (social needs and learning priorities). Empirical evidence has revealed that connectedness to school has been shown to guard against violence, risky sexual behaviour, drug abuse, school dropout rate, emotional distress,
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Absenteeism, bullying, fighting, vandalism and truancy (Klem & Connell, 2004; Blum, 2005; Whitlock, 2006; Cohen, McCabe, Michelli & Pickeral, 2009).

Numerous studies have shown that participation in interscholastic sports leads to acquiring virtues such as citizenship, sportsmanship, lifelong lessons, teamwork, self-discipline, and aids in the physical emotional growth of the nation’s youth, developing positive attributes like discipline, increased self-esteem, hard work, and determination (NFHS, 2002; Rintaugu, 2005; Mwihaki, 2007; Muniu, 2009; Rintaugu, Mwisukha & Amusa, 2012). Similarly, studies have reported that athletes are likely to have better attendance records, lower dropout rates and less likely to engage in drugs than non-athletes (Fejgin, 1994; Gitonga, 1998; Hanson & Kraus, 1999; Witt & Estes, 2001; Rintaugu, et al., 2012). However, a number of studies have reported no association between sport participation and academic achievement (Melnick, Sabo & VanFossen, 1992a, 1992b; Sabo, VanFossen & Melnic, 1993; Marsh, 1993; Wolniak, Pierson & Pascarella, 2001; Williams, Sarraf & Umbach, 2006). However, other studies found that students who participated in interscholastic athletics did not have better Grade Point Average (GPA)(Shulman & Bowen, 2001).

Studies from the west have found that participation in athletics is related to positive academic related outcomes including higher GPA, fewer disciplinary referrals, lower absentee rates, decrease in dropout rates, stronger commitment to the school, liking school better, being on the track in coursework, taking more demanding coursework and better occupational status (Darling, Cadwell & Smith, 2005; Morrissey, 2005; Fredricks & Eccles, 2006; Reeves, 2008). Morrissey (2005) noted a reduction in delinquency and less engagement in risky behaviours. Other studies have reported that participation in sport protect children against school dropout (Mahoney & Cains, 1997).

A number of studies from the west have shown that participation in co-curricular activities promotes school connectedness (Gilman, 2000; Rouse-Gordon, 2001; McNeely, Nonnemaker & Blum, 2003; Liberty, 2004). These studies contend that with an increase in student participation in co-curricular activities, there was an equal increase in student connectedness to school and higher school satisfaction, students are more resilient to adverse experiences and stressful life variables, a bonding role and help students learn important skills to function socially. Liberty, (2004) conceded that successful sport programmes enhance school connectedness and school satisfaction. In Kenya, Muniu (2009) found that participation in sports can be used to moderate examination related stress. In a related study Musyoki (2011) found that the pupils had a low sense of belonging to their schools and low school connectedness as a result of poor school environment. While these Kenyan studies point out the importance of school connectedness and environmental factors, none of them has looked at the effects of participation in competitive sports and school connectedness of students.
Witt and Estes (2001) observed that participation in sport has been linked directly to academic achievement in that both sports and academics require discipline, time commitment, motivation and desire for success. In a related study, Darling et al., (2005) revealed a positive impact of sports/physical activities on education and academic enhancement and also maintained that absorption and better academic outcomes that are proportional to time spent in sports activities. Similarly, Mahoney and Cain’s (1997) showed that the drop outs are among at “risk” students were much lower for those students who had participated in co-curricular activities. This was justified in that participation decreases the tendency to drop out, because it gives at risk students an opportunity to create a positive and voluntary connection to educational institutions. Hollard and Andre (1987) found that co-curricular participation was correlated with higher levels of self esteem, involvement in political and social activities, feelings of control over one’s life, lower delinquency rates, academic abilities and grades and educational aspirations and attainments.

Synder and Spreitzer (1990) opined that participation in sport enhances academic achievements as athletes have interest in school, need to maintain good grades to stay eligible, boosts to one’s self-concept, increased attention from adults like teachers and coaches, membership with others who are academically oriented and expectation to play college sports. Spreitzer (1994) showed that students who participated in sport had a higher parental SES, higher levels of cognitive ability and self-esteem. Those students who dropped out of sports were more likely to drop out of other co-curricular activities while those who continued to participate in sports were more likely to take in additional activities besides sports.

McNeal (1995) found that after controlling for all other factors, participation in sport clubs is related to a reduced risk of dropping out of high school. This effect persists even after critical dropouts forces such as race, socioeconomic status and employment are taken into account. Broh (2002) found that participation in sport activities improves achievement while in other diminish achievement. Participation in interscholastic sport promotes student development and social ties among students and these benefits explain the positive effect of participation on achievement.

Eitle and Eitle (2002) investigated on whether cultural capital, household educational resources, family structure and race are related to participation in football, basketball or other sports and whether the effects of participation on several measures of academic achievement differed by race and sport. Their findings suggested that cultural advantage contributes to an increased interest in and perhaps dependence on basketball and football as a means of social capital.
In addition playing particular sports may not have the achievement returns for either black or white students that some have previously suggested.

Marsh (1992) after controlling for background variables, found that participation in sport is associated with an improved GPA, higher educational aspirations, increased college attendance and reduced absenteeism. Finn (1989) suggested that participation in school related activities promotes better contact with the school environment and specifically for students having academic difficulties, participation in school activities provides alternative routes for maintaining. Ongonga, Okwara and Okello (2010) revealed that participation in sports is generally beneficial to students in secondary schools like making them physically fit and healthy.

Gitonga and Akpata’s (1999) study of students in secondary schools in Kenya revealed that athletes consistently performed better than non-athletes in measures of academic performance after controlling background variables of parental socioeconomic status (SES), Kenya Certificate of Primary Education (K.C.P.E.) performance and type of school. The purpose of the study was to determine the effects of participation in competitive sports on school connectedness among secondary school students. The study predicted that the nexus between participation in competitive sports and school connectedness will not be mediated by the categorical variables of gender, age, school type and status.

Methodology

Research design

This study employed survey research design to determine the effects of participation in competitive sports on school connectedness among secondary school students in Murang’a County, Kenya.

Participants

Stratified random sampling technique was utilized to select 26 schools from the 257 public secondary schools in Murang’a County. The schools were stratified into four strata: boys’ boarding, girls’ boarding, mixed day and mixed boarding schools. From each of the 26 sampled schools, a matched pair design was used to randomly select 8 athletes (those who had represented the school in external sport competitions) and these were asked to name a close friend who did not take part in sport. It was assumed that the two sets of students had similar characteristics with the exception that one was taking part in competitive sport, yielding a total of 384 students whose demographic details are presented in Table 1.

Table I: Demographic details of the respondents (n=342)
Table 1 shows that 205 (60.5%) were males while 137 (40.1%) were females. Most of the respondents were aged 17 years, (148; 43.3%) and 180 (52.6%) were in Form 3 with those in Form 2 being 162 (47.4%). Most (231; 67.5%) were in mixed day secondary schools followed by (282; 82.5%) who were enrolled in county schools, while National and District schools had 30 (17.5%) respectively. Those who were taking part in sport (athletes) were 185 (54.1%) and non-athletes were 157 (45.9%)

Data collection

The study used a questionnaire which was adopted from studies of Liberty (2004) as the main tool for data collection. Liberty (2004) measurement of school connection include academic engagement, belonging, discipline/fairness, liking for school, extracurricular activities, student voice, peer relations, safety and teacher support. The questionnaire had four sections. Section A sought demographic details of the respondents on age, gender, type of school, class and athletic status. Section B had items on participation in sport in terms of type, highest level of competition and regularity of participation. Section C had items on school connectedness of liking for the school, positive relations with teachers and friends at school, sense of belonging to the school, engagement in other school activities. The items which focused on school connectedness were weighted on a likert scale type of Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree. These were scored as 5, 4, 3, 2, and 1 respectively with high scores indicating students’ connectedness to the school.
Validity of the instrument was established through expert judgment by three lecturers in the Department of Recreation Management and Exercise Science in Kenyatta University who are experts in research methods and sociology of sport. Test-retest techniques were used to assess the reliability of the instrument. The instrument was administered to 30 participants drawn from a secondary school which did not take part in the main study. A reliability coefficient of 0.76 was returned and considered adequate for the study (Wiersma, 2009).

Data analysis

Data collection procedure involved quantitative procedures and games teachers in respective schools identified the athletes as earlier reported. These data were analyzed using descriptive statistics of percentages, means and standard deviations and inferential statistics of independent t-test and two-way Analysis of Variance (ANOVA). Post Hoc Test of Tukey Honestly significant difference (HSD) was used to trace the source of significant differences at 0.05 level of significance.

Results

The descriptive statistics of athletes’ gender, athletic status and school connectedness are presented in Table 2. The male students had a higher mean score on school connectedness than the female students. Equally, athletes had a higher means on school connectedness than non-athletes. However, there were no significant differences in the mean scores on school connectedness between male and female athletes ($t_{340} = .647, p > .052$). This shows that both male and female students felt connected regardless of their athletic status. The nexus between school connectedness and age of the respondents is presented in Table 3 and 4.

Table 2: Descriptive statistics on gender, athletic status and t-tests results on school connectedness

<table>
<thead>
<tr>
<th></th>
<th>Athletes</th>
<th></th>
<th>Non-Athletes</th>
<th></th>
<th></th>
<th>x̅</th>
<th>Sd</th>
<th>x̅</th>
<th>Sd</th>
<th>t</th>
<th>df</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>205</td>
<td>86.98</td>
<td>1.817</td>
<td>86.24</td>
<td>1.923</td>
<td>85.57</td>
<td>1.966</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.64</td>
</tr>
<tr>
<td>Females</td>
<td>137</td>
<td>85.85</td>
<td>1.455</td>
<td>84.95</td>
<td>2.012</td>
<td>85.43</td>
<td>1.891</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.52</td>
</tr>
</tbody>
</table>

Table 3: Summary of the descriptive statistics on age and athletic status on school connectedness

<table>
<thead>
<tr>
<th>Athletic status</th>
<th>Age (years)</th>
<th>n</th>
<th>School Connectedness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>x̅</td>
<td>SD</td>
<td></td>
</tr>
</tbody>
</table>


Table 3 shows that the athletes aged 15 years had the highest mean score on school connectedness while those athletes aged 18 years were least connected to their school. The non-athletes aged 15 years had the highest mean score on school connectedness while those non-athletes aged 16 years had the lowest means. Athletes aged 19 years and those athletes aged 17 years were least connected to their school. However across the age categories, athletes had a higher score than non-athletes. Further analysis through ANOVA (Table 4) revealed that there is a significant difference in mean score of school connectedness between ages, $F_{(4,332)} = 2.70$, $p < 0.031$. It also shows that a statistically significant interaction between the effects of age and athletic status on school connectedness $F_{(4,332)} = 3.197$, $p < 0.01$. This implies that younger athletes and non-athletes were more connected to their schools compared to older athletes and non-athletes. Post-hoc tests show that there was significant mean difference in the school connectedness between the students aged 15 and 16 years and those aged 15 and 17 years. Secondly, highest mean scores were returned among students aged 15 and 16 years were more connected to the school compared to other age groups. The results of the analysis also revealed that majority of the students who were connected to school were aged between 15 and 17 years. The study was interested in determining whether school connectedness will vary based on the level of class and descriptive statistics.
showed that students the form 2 students had higher means than form three students. However, the t-results showed that there was no statistically significant difference in the mean scores of school connectedness between Forms 2 and 3 students ($t_{340} = 1.255, p > .210$). This was a clear indication that class level did not have any effect on students’ connectedness to school. The study sought to establish whether school type and athletic status influenced school connectedness among the students and the results are presented in Table 5.

Table 5: Descriptive statistics on mean scores of school connectedness among school types and athletic status

<table>
<thead>
<tr>
<th>School type</th>
<th>Athletes</th>
<th>Non-athletes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. dev</td>
<td>Mean</td>
</tr>
<tr>
<td>Boys boarding</td>
<td>87.09</td>
<td>1.704</td>
<td>86.15</td>
</tr>
<tr>
<td>Girls boarding</td>
<td>86.00</td>
<td>1.828</td>
<td>85.28</td>
</tr>
<tr>
<td>Mixed boarding</td>
<td>85.12</td>
<td>1.877</td>
<td>84.58</td>
</tr>
<tr>
<td>Mixed day</td>
<td>85.03</td>
<td>1.838</td>
<td>84.73</td>
</tr>
<tr>
<td>Total</td>
<td>85.32</td>
<td>85.73</td>
<td>85.51</td>
</tr>
</tbody>
</table>

Results in Table 5 show that the participants in the boys’ boarding schools were most connected to their schools followed by girls in girls boarding and mixed day/boarding. The least connected students were those in mixed day secondary school. This shows that students in boarding secondary schools were more connected to school compared to the student in day schools. Results also show that there was no statistically significant mean difference between athletes status and school connectedness, $F_{(2,334)} = 1.632, p>0.202$, Results of the analysis further revealed that there was a significant mean difference of school connectedness based on the school type, $F_{(3,334)} = 7.023, p <0.00$. In addition, there was statistically significant interaction between the effect of athletics status and school type on school connectedness, $F_{(3,334)} = 7.202, p<0.00$. Further test of post hoc Tukey test shows that there were significant mean differences in the mean scores of school connectedness between the boys boarding and other three school types. The participants from boys’ boarding school were more connected to school than the girls boarding, mixed boarding and those from mixed day schools. This shows that students in boys’ schools were more connected to schools compared to those in girls, mixed boarding and mixed day schools.

Discussion

The purpose of this study was to determine the effects of sport participation on school connectedness of high school students. Findings of the study showed that both male and female students felt connected while at school in relation to participation in sports with no gender differences. This is contrary to Bonney, and Kilodyrtmann (2000) findings that boys reported more feelings of connectedness to their school than girls. Similarly, Summers, Svinicki, Gorin, and Sullivan (2007) reported that gender appeared not to have a significant
influence on students’ connection to their school. They noted that both the male and females have approximately equal feelings of school connectedness. These conflicting findings were extolled in Whitlock (2003) observations that researches on relationship between gender and school connectedness have been most inconsistent. However, Hawkins and Mulkey (2005) reported that sport participation resulted in a reduction in absenteeism from schools but only in females. Cooper, Valentine, Nye and Lindsay (1999) averred that participation in sports is linked to greater school attachment and sense of belonging, better academic achievement, higher academic aspirations and less risky behaviours’ such as alcohol and drug use or dropping out of school. Similarly, Posner and Vandell (1999) and Mahoney and Stattin (2000) observed that time spent in structured activities is related to better peer relationship and emotional adjustments at school.

The study revealed that younger athletes were more connected to their schools compared to older athletes and non-athletes. This corroborates with Whitlock, (2006) observations that the older one is, the less connected they feel to school. This could be attributed to the fact that staying in school for a longer period of time allows students to know the possible shortcomings of the school in terms of safety, creative engagement and academic engagement. The older students, may have formed some cold relationships with teachers, may dislike the school based on their subject preferences. Happiness at school can originate from satisfaction with the academic life of the school or having more friends. Klem and Connell (2004) notes that as children progress through school they become less connected and by the age of fourteen 40% - 60% of students in urban and rural schools are increasingly disconnected. In addition, Darling et al., (2005) argues that older students are likely to be involved in other co-curricular activities apart from sports than the younger students.

The findings in this study revealed that there were no significant differences in the mean scores of school connectedness between Form 2s and 3 students. This is not surprising as the one year class differential may not impact on the students who are playing in the same school teams. Secondly, the athletes and non-athletes may be in the process of identity formation. Nakpodia (2010) contended that school connectedness is enhanced where there are feelings of support from teachers, peers and fair treatment while disconnectedness is caused by non-caring teachers, curricula not matched to student needs and insensitive climate in classes.

Boys in Boys secondary schools were more connected to schools compared to those in Girls in Mixed boarding and mixed day schools. The findings are in dissonance with the results of Mapfumo and Muchena (2013) that there was no association between the school type and school connectedness. Athletes in boarding schools have more time to train, including weekends, and have better relationships with their teachers and coaches (Gitonga & Akpata, 1998).
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(2005) reported that most of the day schools in Kenya are characterized by student indiscipline, lack in both academic and sports infrastructure and poor performance in national examinations.

It was predicted that students in national schools will be more connected than those in other category of schools. This was based on the assumption that national schools are more endowed in terms of both sport and academic infrastructure (Rintaugu, 2005). However, results showed that there was a significant difference among students from National schools and those from County schools and District schools on the school connectedness due to sports participation. Students in National schools were more connected to their schools when compared to those students in County and District schools. These findings were supported Rintaugu (2005) who found that national schools had old records of white dominated games such as rugby, cricket, swimming and tennis. Secondly, athletes in National schools have better attendance records compared to day schools and also the rate of dropout is low (Gitonga & Akpata, 1998; Rintaugu,2005). Furthermore, large schools (national schools) have greater resources and can address the problems of inadequate opportunities for participation in various ways such as expanding their athletic departments to maintain many different sports teams and/or enhancing their intramural sports programs. Impoverished high schools (District schools) often have weaker music and arts programs, student governments, and athletic programs. Moreover, the more exclusive sports such as crew, fencing, golf, and tennis are seldom available for students attending poor, urban comprehensive high schools (Jordan, 1999).

Conclusions

The conclusions drawn from this study are that athletes are more connected to the school compared to non-athletes with no gender differences. Evidently, younger athletes seem to be more connected to the school than older athletes. There is significant interaction between age, athletic status and school connection. Lastly, school type impacts on the nexus between participation in sport and connection in favor of Boys boarding schools.

Recommendations

There is need to lay more emphasize on participation in competitive sports in all secondary schools as this promote school connectedness. This can be done by having sound sports infrastructure and an environment which is conducive for sports participation. The Ministry of Education through the County Director of education should ensure that all secondary schools have basic sports facilities and equipment in order to promote sports participation. Mixed day schools should make an effort to provide changing rooms to increase female student’s
participation in sport. This can be done by designating such rooms like laboratories, libraries or games stores as changing rooms. There is need to conduct further studies while controlling for other variables which influence school connectedness such as parental social economic status and type of sport.

References


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