Participation of Secondary School Learners Aged 14 to 16 Years in Organised Sport

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Article

Participation of Secondary School Learners Aged 14 to 16 Years in Organised Sport

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Absrtact: Background: In South Africa, a relatively small number of children and adolescents belong to sports clubs, and adolescent participation in organised sport has steadily declined, especially in recent years. Participation levels in organised sport has decreased during late childhood and, more increasingly, as adolescents grow older. **Aim:** Therefore, the aim of this study was to determine the participation of secondary school learners aged 14 to 16 years in organised sport. **Methods:** The study was a quantitative and descriptive, cross-sectional design. The study sample was 329 conveniently sampled secondary school learners, males, and females, aged 14 to 16 years from three state schools in Cape Town, Western Cape Province. A researcher-generated, self-administered questionnaire on organised sport participation was developed, piloted, and validated among 44 learners of similar background, who did not participate in the main study. The statistical software, SPSS version 27, was used to capture and analyse the research data. The level of statistical significance for the study was set at $p < 0.05$. **Results:** A total of 66.9% of participants in the study sample participated in organised sport. Low but significant correlations were reported between gender and participation in organised sport ($r = 0.22$; $p < 0.001$), gender and friend participation in organised sport ($r = 0.24$; $p < 0.001$), participants participation and sibling participation in organised sport ($r = 0.23$; $p < 0.001$), participants participation and friend participation in organised sport ($r = 0.36$; $p < 0.001$), and between participant participation and parental participation in organised sport ($r = 0.17$; $p = 0.003$). **Conclusion:** Adolescent participation in organised sport was lower in the present circumstances compared to participation in the past three years. Adolescent males had higher participation levels in organised sport compared to adolescent females. There is an urgent need for solutions to counteract the low levels of adolescent participation in organised sport, especially in adolescent females.

Keywords: Participation; secondary school learners; organised sport; adolescent; sport clubs

INTRODUCTION

Participation in organised sport positively impacts social skills, cognitive skills, physical health, mental health and wellbeing, and academic performance (Boyes, O'Sullivan, Linden, McIsaac & Pickett, 2017, Eime, Harvey, Craike, Symons & Payne, 2013; Merkel, 2013; Qurban, Siddique, Wang ,Morris & Kashmir , 2018; Singh Rana & Lehri, 2019; Wilson, Whatman, Walters, Keung, Enari, et al., 2022). Aubert, Barnes, Abdeta, Nader, Adeniyi, et al. (2018) found that the average participation of children and adolescents in organised sport was between 47% and 53% in 49 countries around the world. In South Africa, between 21% and 40% of children and adolescents participated in organised sport (Draper, Tomaz, Bassett, Burnett, Christie, et al., 2018; Uys, Bassett, Draper, Micklesfield, Monyeki, et al., 2016). It was found that adolescent males were more likely to participate in organised sport compared to their female counterparts (Al-Sobayel, Al-Hazzaa, Abahussain, Oahwaji and Musaiger, 2015; Basterfield, Gardner, Reilly, Pearce, Parkinson et al., 2016; Howie, McVeigh, Smith & Straker, 2016; Lounassalo, Salin, Kankaanpaä, Hirvensalo, Palomäki et al., 2019; Somerset & Hoare, 2018). Similarly, in South Africa, boys and adolescent males were likely to have higher participation compared to girls and adolescent females (Uys et al., 2016).

Moreover, Gallant, Loughlin, Brunet, Sabiston and Bélanger (2017) stated that participation in physical activity and sport commonly decreases during adolescence. It is estimated that the dropout

rate in organised sport participation amongst Australian and Canadian children and adolescents was about 30% to 35% (Balish, McLaren, Rainham & Blanchard, 2014; Vella, Cliff & Okely, 2014). Notably, the lack of facilities, the lack of time and the lack of finances were some major contributing barriers identified as having a negative impact on organised sport participation (Allender, Cowburn & Foster 2006; Fourie, Slabbert & Saayman, 2011; Holt et al., 2011; Koloba & Surujlal, 2014; Somerset & Hoare, 2018). In South Africa, the lack of facilities and the lack of finances were critical factors that negatively impacted adolescent participation in organised sport and sport programmes (Koloba & Surujlal, 2014; Mchunu & Le Roux, 2011).

Furthermore, the lack of finances in households classified as low socioeconomic status (SES) negatively influenced participation in physical activity and sport (Hassan, 2016; Manz, Krug, Schienkiewitz & Finger, 2016). Children and adolescents were more likely to participate in sport, if the necessary sport facilities and programmes were available (Ebrahimi, Pour, Azmsha & Hatami, 2015; Eime, Harvey, Charity, Casey, Westerbeek, et al., 2017). The household income and education level of the parents both positively or negatively impacted the level of participation of their children (Wijtzes, Jansen, Bouthoorn, Pot, Hofman, et al., 2014). Parents who were physically active were more likely to have children who participated in physical activity and sport (Howie, Daniels & Guagliao, 2020; Marques, Martins, Sarmento, Diniz, & Carreiro da Costa, 2014; Rodrigues, Padez & Machado-Rodrigues, 2018).

The established evidence of decreasing levels of adolescent participation in organised sport is cause for concern, especially due the fact that adolescents are missing out on the benefits of sport participation, such as improved physical health and mental health and wellbeing (Boyes et al., 2017; Eime et al., 2013; Qurban et al., 2018; Merkel, 2013; Wilson et al., 2022). Therefore, the aim of the study was to determine the determine the participation levels of adolescent secondary school learners in organised sport.

DESIGN AND METHODS

The study was a quantitative, descriptive, and cross-sectional design, and used convenience sampling to recruit 329 learners, males and females aged 14 to 16 years from grades eight, nine and ten from three secondary schools classified as quintile 4 and 5 in the Metro Central and South districts of Cape Town. Learners, who granted consent, completed a self-administered, researcher-generated questionnaire on organised sport participation. Ethics clearance was obtained from the Biomedical Research Ethics Committee (Ethics reference number: BM19/7/18) at the University of the Western Cape. Thereafter, permission was obtained from the Western Cape Department of Education (REF: 20200206-4135).

Research Instrument

The questionnaire on organised sport participation went through a process of validation, i.e., a critical appraisal assessment, pilot study, and test-retest reliability. The questionnaire was divided into three sections. Section A consisted of the participants sociodemographic characteristics, such as date of birth, age, gender, and grade. Section B the socioeconomic status (SES) of the participants. Section C assessed past and present organised sport participation of the participants, as well as parental, sibling and peer (friend) participation in organised sport.

Statistical Analysis

SPSS version 27 was used to capture and analyse the data. The data was presented descriptively in the form of graphs and tables. Descriptive and inferential statistics, such as Pearson's correlation, was used to determine the relationship between the various categorical variables, such as gender, sport participation, and socioeconomic status. The level of statistical significance was set at $p < 0.05$.

RESULTS

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Table 1 presents the sociodemographic information of the participants in the study, e.g., gender, age, and socioeconomic status (SES). The total sample was 329 participants. A total of 61.1% were female, and participants aged 14 years accounted for 14.6% of the group, those aged 15 years were in the majority and accounted for 44.1%, the 16-year age-group accounted for 31.9%, those aged17 years were in the minority with 9.4%. The participants classified as middle SES accounted for 49.2%, while the participants who were classified as either low and high SES accounted for 26.7% and 24.1%, respectively.

Table 1. Sociodemographic characteristics of the participants.

Variable	Characteristics	Number of Participants n (%)
Gender	Male	128 (38.9)
	Female	201 (61.1)
	Total	329 (100.0)
Age (years)	14	48 (14.6)
	15	145 (44.1)
	16	105 (31.9)
	17+	31 (9.4)
	Total	329 (100.0)
Socio-economic Status (SES)	Low	88 (26.7)
	Middle	162 (49.2)
	High	79 (24.1)
	Total	329 (100.0)

Note: + indicates 17 to 19 years of age.

Figure 1 presents the results on organised sport participation by the participants. A total of 66.9% participated in organised sport, either in the past three years or in the present. Slightly fewer (62.0%) participated in the past only, whereas even less (44.1%) participated in the present. A total of 58.4% had a parent/guardian who participated in sport, either in the past or present. In addition, 55.0% of participants indicated that a sibling participated in organised sport in the past or present. Also, 71.4% indicated that they had friend who participated in organised sport in the past or present.

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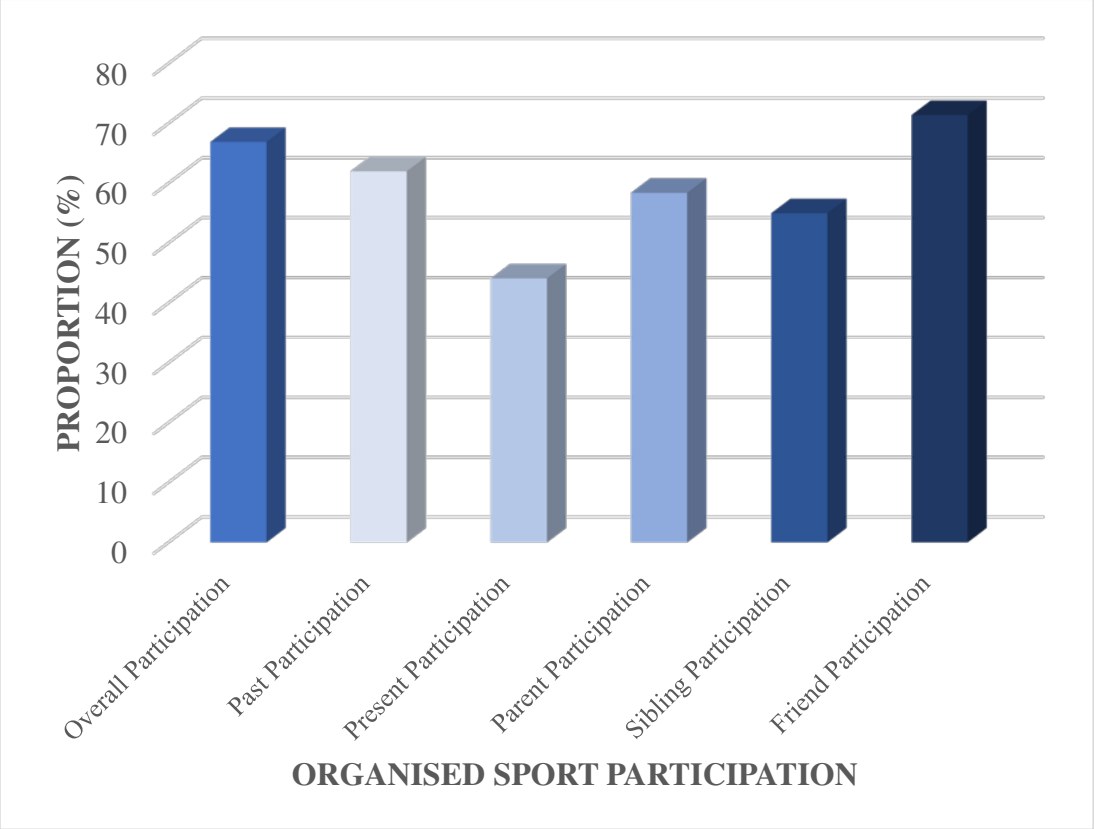

Figure 1. Organised sport participation of participants and their significant others.

A total of 79.7% of males indicated that they participated in organised sport, either previously or presently, as opposed to 58.7% of females who participated previously or presently (Figure 2). A total of 75% of males participated in the past only compared to 53.7% of females. A total of 56.3% of males participated in the present only compared to 36.2% of females. A total of 61.7% of males indicated that they had a parent/guardian who participated in organised sport, either previously or presently compared to 56.2% of females. Also, 55.5% of males had a sibling who participated previously or presently in organised sport compared to 54.7% of females. Furthermore, 85.2% of males had a friend who participated, either previously or presently compared to 62.7% of females.

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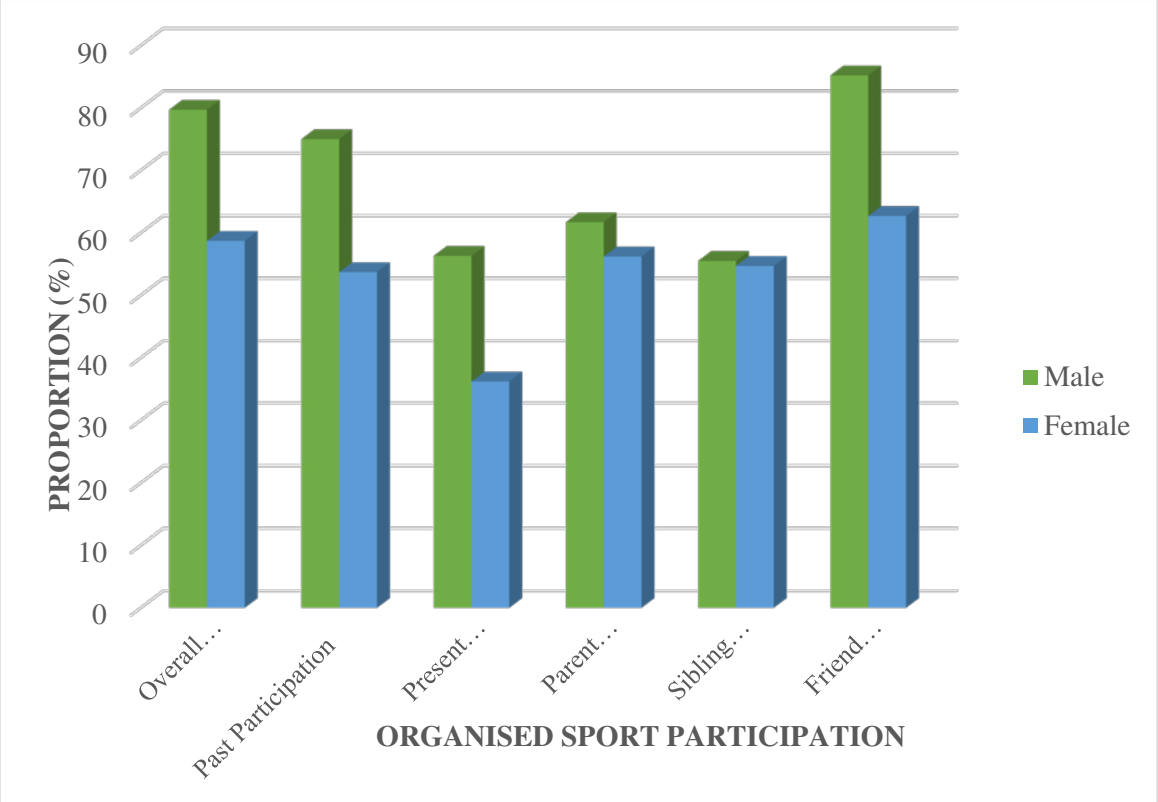

Figure 2. Organised sport participation patterns of participants based on sociodemographic characteristics.

The majority (81.0%) of participants classified as high SES participated in organised sport compared to 61.7% of middle SES and 63.6% of low SES (Figure 3). The proportions of participants who participated in the past were only 56.8% of low SES, 59.9% of middle SES, and 72.2% of high SES. In terms of present participation, 50.6% of high SES, 37.7% of middle SES, and 50% of low SES participated in organised sport. Also, 46.6% of participants of low SES indicated that they had a parent/guardian who participated, either previously or presently, compared to 61.7% of middle SES and 64.6% of high SES. Furthermore, 56.8% of participants of low SES had siblings who participated previously or presently compared to 55.6% of middle SES and 51.9% of high SES. In addition, 70.5% of participants of low SES had a friend who participated previously or presently compared to 68.5% of middle SES and 78.5% of high SES.

Figure 4 shows that 39.2% of participants indicated that they have participated consistently in the past and present, in organised sport. In contrast, 22.8% of participants participated only in the past, and dropped out, so they did not participate at present. A total of 4.9% of participants were new participants who only participated in the present, but did not participate previously in organised sport, whereas 33.1% of participants indicated that they have never participated in organised sport, neither in the past nor in the present.

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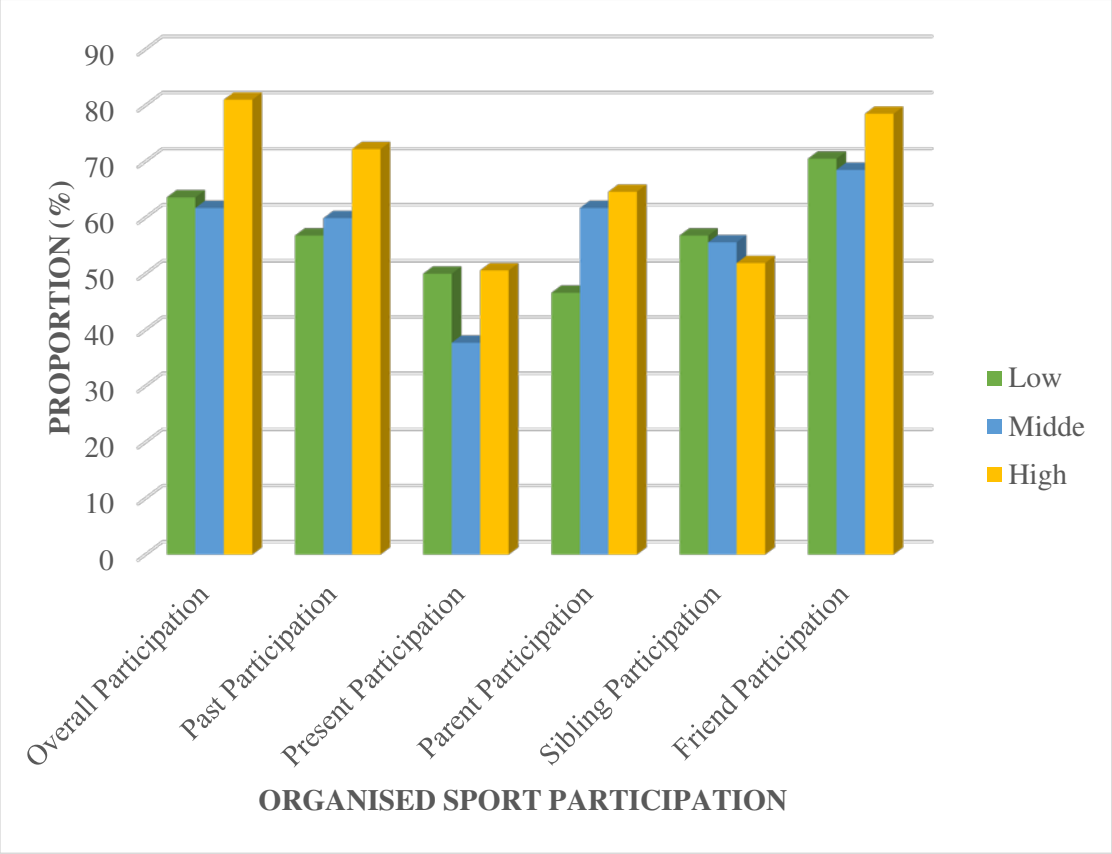

Figure 3. Organised sport participation patterns of participants based on socioeconomic status (SES).

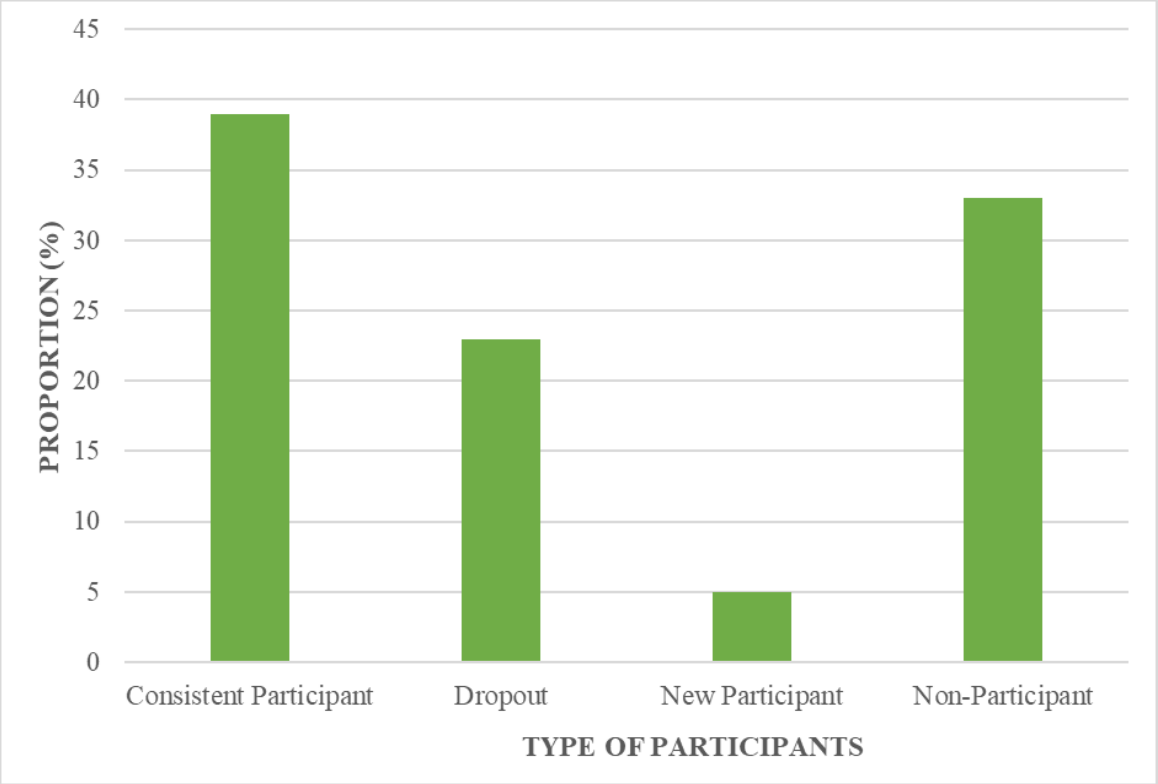

Figure 4. Proportion of participants who participated in organised sport based on their past and present participation patterns.

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Figure 5 shows that 51.6% of male participants indicated that they have previously and presently participated in organised sport. A total of 23.4% of male participants only previously participated in organised sport, but have dropped out and did not participate in organised sport in the present. A total of 4.7% of male participants were new participants who only participated in organised sport in the present, but did not previously participate in organised sport, whereas 20.3% of male participants indicated that they have never participated in organised sport, neither in the past nor in the present.

A total of 31.3% of female participants indicated that they have previously and presently participated in organised sport. A total of 22.4% of female participants only previously participated in organised sport, but have dropped out and did not participate in organised sport in the present. A total of 5% of female participants were new participants who only participated in organised sport in the present, but did not previously participate in organised sport, whereas 41.3% of female participants indicated that they had never participated in organised sport, neither in the past nor in the present.

Figure 6 shows that 43.2% of participants of low SES participated consistently in organised sport, in the past and present. A total of 13.6% of these participants dropped out and did not participate in the present. A total of 6.8% of low SES were new participants, who only participated in organised sport in the present, and 36.4% of low SES indicated that they had never participated in organised sport, neither in the past nor in the present.

A total of 35.8% of participants of middle SES participated consistently in the past and present in organised sport. A total of 24.1% of middle SES dropped out and did not participate in the present. A total of 1.9% were new participants who only participated in the present, whereas 38.8% of middle SES had never participated in organised sport.

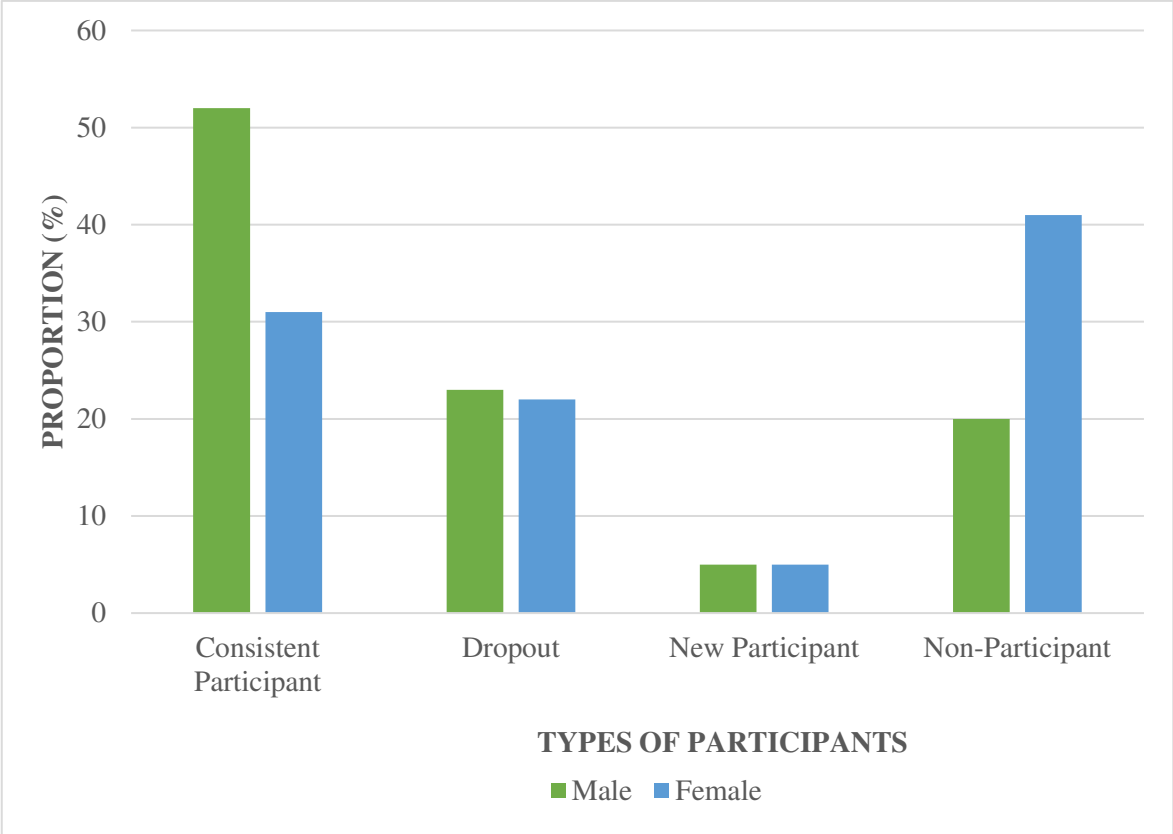

Figure 5. Proportion of participants who participated in organised sport based on gender.

A total of 41.8% of participants classified as high SES participated consistently in the past and present. A total of 30.4% of high SES dropped out and did not participate in the present. A total of 8.9% of high SES were new participants who only participated in the present, whereas 19% of high SES had never participated in organised sport.

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Table 2 shows that there were statistically significant, but weak positive correlations between gender and participant participation ($r = 0.22$; $p < 0.001$), between gender and friend participation ($r = 0.24$; $p < 0.001$), between participants and sibling participation ($r = 0.23$; $p < 0.001$), between participants and friend participation ($r = 0.36$; $p < 0.001$), and between parental and sibling participation ($r = 0.22$; $p < 0.001$). There were also statistically significant, but very weak correlations between participants' and parental participation ($r = 0.17$; $p = 0.003$), between parental and friend participation ($r = 0.19$; $p < 0.001$) and between sibling and friend participation ($r = 0.19$; $p < 0.001$). There were also statistically significant, but very weak negative correlations between SES and participants' participation ($r = -0.13$; $p = 0.02$), and SES and parental participation ($r = -0.13$; $p = 0.02$).

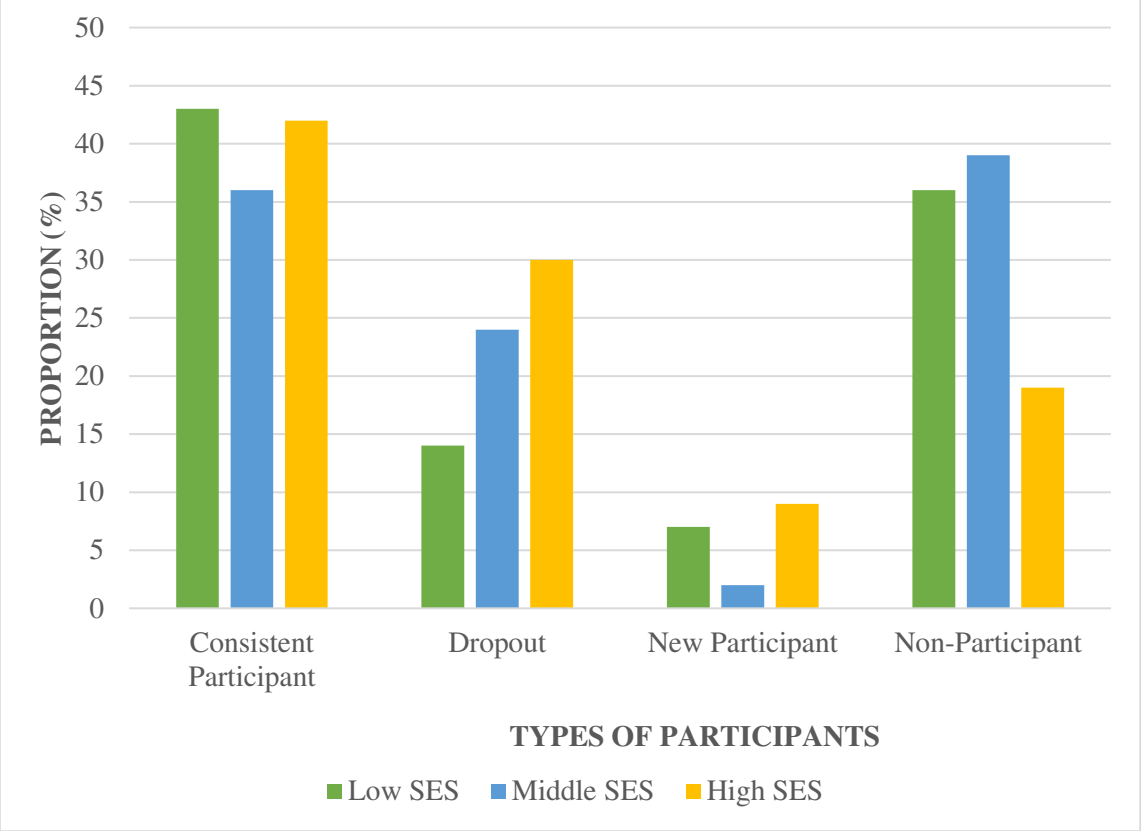

Figure 6. Proportion of participants of varying socioeconomic status (SES) who participated in organised sport.

Table 2. Relationships between participant, parental, sibling and friend participation in organised sport.

Variables	Gender	Age	Socioeconomic Status	Participant Participation	Parent Participation	Sibling Participation
Age	-0.11*					
Socioeconomic Status	-0.08	0.00				
Participant Participation	0.22**	-0.02	-0.13*			
Parent Participation	0.05	0.10	-0.13*	0.17**		
Sibling Participation	0.01	-0.03	0.03	0.23**	0.22**	

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Friend Participation	0.24**	-0.05	-0.06	0.36**	0.19**	0.19**

*Note: * indicates statistically significant correlation p < 0.05; ** indicates statistically significant correlation p < 0.01.*

Table 3 shows a significant association between gender and participants' overall participation [$\chi 2$ (1) = 15.54, p < 0.001, OR = 2.76 (95% CI: 1.65 - 4.61)]. The results indicate that participants' overall participation was dependent on gender, and that males were 2.76 times more likely than females to have participated in organised sport in the past or present. Also, there was a significant association between participants of low and high SES [$\chi 2$ (1) = 6.22, p = 0.01, OR = 2.41 (95% CI: 1.20 - 4.91)]; and between participants of middle and high SES [$\chi 2$ (1) = 9.08, p = 0.01, OR = 2.65 (95% CI: 1.39 - 5.04)]. This indicates that the participants' overall participation was dependent on SES, and that participants of high SES were 2.41 times more likely than participants of low SES to have participated in organised sport in the past or present. Similarly, participants of high SES were 2.65 times more likely than participants middle SES to have participated in organised sport, either previously or presently.

There was also a significant association between participants of low and middle SES regarding parental participation [$\chi 2$ (1) = 5.31, p = 0.02, OR = 1.86 (95% CI: 1.10 - 3.13)]; and between participants low and high SES [$\chi 2$ (1) = 5.43, p = 0.02, OR = 2.09 (95% CI: 1.12 - 3.89)]. This indicates that participants of middle SES were 1.86 times more likely than participants of low SES to have a parent who participated in organised sport in the past or present, and participants of high SES were 2.09 times more likely than participants of low SES to have a parent who participated in organised sport in the past or present.

There was also a significant association between participants' friend participation and gender [$\chi 2$ (1) = 19.35, p < 0.001, OR = 3.42 (95% CI: 1.94 - 6.00)]. Therefore, male participants were 3.42 times more likely than female participants to have a friend who participated in organised sport in the past or present.

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Table 3. Relationships between participant, parental, sibling and friend participation in organised sport based on sociodemographic characteristics.

Variable	Characteristic	Participants' Overall Participation#			Participants' Parental Participation			Participants' Sibling Participation			Participants Friend Participation		
		χ 2	P Value	OR (95% CI)	χ 2	P Value	OR (95% CI)	χ 2	P Value	OR (95% CI)	χ 2	P Value	OR (95% CI)
Gender	Male (n = 128) Female (n = 201)	15.54	<0.001**	2.76 (1.65 - 4.61)	0.97	0.32	1.26 (0.80 - 1.97)	0.02	0.90	1.03 (0.66 - 1.61)	19.35	<0.001**	3.42 (1.94 - 6.00)
	Low (n = 88) Middle (n = 162)	0.09	0.77	1.085 (0.63 - 1.86)	5.31	0.02*	1.86 (1.10 - 3.13)	0.04	0.85	1.05 (0.64 - 1.78)	0.10	0.75	1.10 (0.62 - 1.93)
Socioeconomic Status	Low (n = 88) High (n = 79)	6.21	0.01*	2.41 (1.20 - 4.91)	5.43	0.02*	2.09 (1.12 - 3.89)	0.41	0.52	1.22 (0.66 - 2.25)	1.40	0.24	0.65 (0.32 - 1.32)
	Middle (n = 162) High (n = 79)	9.08	0.01*	2.65 (1.39 - 5.04)	0.18	0.67	0.89 (0.51 - 1.50)	0.27	0.59	1.16 (0.68 - 1.99)	2.60	0.10	0.60 (0.32 - 1.12)

*Note: * indicates statistically significant correlation $p < 0.05$; ** indicates statistically significant correlation $p < 0.01$; # indicates participants' past and/or present participation in organised sport.*

DISCUSSION

The current study reported that 66.9% of adolescents participated in organised sport, either in the past or the present. This is similar to the results by Uys et al. (2016) and Draper et al. (2018) who reported that less than a third of South African children and adolescents did not belong to a sports club. In contrast, 93% of Norwegian children and adolescents participated in organised sport (Strandbu, Bakken &Stefansen, 2019), while in Australia and New Zealand, around 60% of children and adolescents participated in organised sport (Hesketh, Booth, Cleland, Gomersall, Olds et al., 2023; Wilson, Ikeda, Hinckson, Mandic, Richards et al., 2023) It is shown that participating in organised sport during childhood and adolescence increased the likelihood of participating in adulthood (Logan, Cuff, LaBella, Brooks, Canty, et al., 2019).

The current study showed that adolescent participation in organised sport was higher in the past (62.0%) compared to the present (44.1%). Therefore, adolescent participation had decreased in recent years, which was similar to the results reported by Kubayi et al. (2013), who showed that the participation of children and adolescents in physical activity and sport in SA was declining. Similar trends were also reported in other studies (Eime et al., 2016; Lagestad, 2019; Møllerløkken, Lorås &Pedersen 2015). In Sweden, Eliasson and Johansson (2021) reported that there are various factors such different interests, emotional wellbeing, pressure and lack of time contributed to organised sport dropout, while Shull, Dowda, Saunders, McIver and Pate (2020) stated that among American youth, time constraints and the lack of opportunities contributed to the drop-off in organised sport participation.

For adolescents who participated in organised sport in the present only (44.1%), participation was lower than other countries, such as Ghana (between 54-57%), Zimbabwe (67%) , and the Netherlands (58%), as well as global statistics (between 47% and 53%) (Aubert et al., 2018; Deelen et al., 2018). Drummond, Elliot, Drummond and Prichard (2020) believed that participation in organised sport around the world was and will continue to be impacted by the effects of COVID-19. Due to the COVID -19 global pandemic, all sporting activities were put on hold, which had a negative effect on organised sport participation (Drummond et al., 2020). However, sporting activities were affected differently globally, due to the different set of lockdown rules that were implemented in different countries (Kelly, Erickson, Pierce & Turnnidge, 2020)

In the present study, 39.2% of adolescents participated consistently in organised sport, whereas 33.1% did not participate at all. In comparison, Manz et al. (2016) reported that 48.5% of German children and adolescents participated consistently in organised sport, whereas 18,7% did not participate at all. Germany can be considered a developed country compared to South Africa, and there is literature reporting that participants from lower SES backgrounds tend to have lower participation rates in organised sport, due to the lack of facilities, the lack of finances and safety considerations (Hassan, 2016; Koloba & Surujlal, 2014; Manz et al., 2016, Mchunu & Le Roux, 2011).

The current study showed that 51.6% of adolescent males and 31.3% of adolescent females consistently participated in organised sport. In comparison, Manz et al., (2016) stated that, in Germany, approximately 53.3% of boys and 43.5% of girls participated consistently in sport, while Howie et al. (2016) stated that, in Australia, 55.2% of boys and 47.5% of girls consistently participated in sport. The current study showed that the consistent participation in organised sport by adolescent males was similar to that other studies (Hassan, 2016; Koloba & Surujlal, 2014). However, the consistent participation of adolescent females was much lower compared to the adolescent females in other studies (Howie et al., 2016). Factors such as gender stereotypes, the lack of programmes and the lack of facilities are possible reasons for the difference in organised sport participation (Balish et., 2014; Vella et al., 2014).

The current study showed that 22.8% of adolescents dropped out from organised sport. Similarly, 20.5% of German children and adolescents dropped out of sport (Manz et al., 2016). In comparison, 30-35% of Australian and Canadian children and adolescents dropped out from sport (Balish et., 2014; Deelen et al., 2018; Vella et al., 2014). Various studies stated that participation levels decreased during late childhood and more increasingly, as adolescents grew older (Kwon et al., 2015;

Lounassalo et al., 2019; Vella et al., 2014). The common reasons among adolescents who dropout were lack of enjoyment, social pressure and being interested in other activities (Eliasson & Johansson, 2021).

The current study reported that adolescent males had higher levels of participation in organised sport, both in the past and in the present, compared to adolescent females. Other studies found the same trend (Al-Sobayel et., 2015; Basterfield et al., 2016; Howie et al., 2016; Lounassalo et al., 2019; Mandic et al., 2012; Somerset and Hoare, 2018; Uys et al., 2016). A possible reason for the difference in participation can be attributed to gender stereotyping sport as a masculine activity, negatively impacted girls participation in organised sport (Howie et al., 2016; Somerset & Hoare, 2018)

In addition, the current study reported a significant association between gender and overall participation, and that male participants were more likely to participate in organised sport, both previously and presently, than female participants. Adolescent females had less interest in sports compared to adolescent males (Fourie et al., 2011), and preferred to use leisure time on other activities, such as schoolwork, rather than participate in organised sport (Deaner, Balish & Lombardo, 2016). Kubayi (2015) stated that adolescent females were less likely to participate in sport, due to barriers, such as a lack of energy, and a lack of family support and commitment.

Moreover, the current study found that 41.3% of adolescent females had never participated in organised sport, while 20.3% of adolescent males had never participated in organised sport. Some studies suggested that factors such as gender stereotypes, different interests and other social influences may cause adolescent males to have higher levels of organised sport participation than their female counterparts (Deaner., et al 2016; Frömel., et al 2018; Fourie et al., 2011; Howe et al., 2016; Osai & Whiteman, 2017).

The current study reported that adolescents of high SES were more likely to participate in organised sport compared to adolescents of middle and low SES. However, adolescents of high and low SES had similar participation levels presently, while adolescents of middle SES had much lower participation levels. Previous studies reported that children and adolescents of high SES were likely to participate in physical activity and sport compared to children and adolescents of low SES (Ali et al., 2012; Ebrahimi, Mehdi Pour, et al., 2015; Hassan, 2016; Holt et al., 2011; Manz et al., 2016; Wijtzes et al., 2014). Similarly, Ebrahimi et al. (2015), Eime et al. (2018) and Santos et al. (2016) also reported that adolescents of high SES had higher participation in organised sport. The lack of facilities, lack of finances, and shortage of sport programmes are believed to negatively influence participation for adolescents of low SES (Hassan, 2016; Koloba & Surujlal, 2014; Manz et al., 2016; Mchunu & Le Roux, 2011).

The current study reported a significant relationship between participant and parental participation in organised sport. Physically active parents are more likely to have their children also participate in physical activity and sport (Howie et al., 2020; Marques et al., 2014; Rodrigues et al., 2018). Furthermore, Sukys et al. (2015) stated that adolescents who participated in sport had great attachment to their parents.

Osai and Whiteman (2017) found that sibling involvement influenced children and adolescent participation in physical activity and sport. The current study found that there was a significant association between adolescent and sibling participation in organised sport for both males and females. Similarly, Hoopwood et al. (2015) found that siblings of an athlete were more likely to participate in physical activity and sport. However, Howie et al. (2020) could not find any relationship, and stated that sibling influence on participation in organised sport should be investigated further.

The current study also reported a significant association between adolescent participation and friend participation in organised sport for both males and females. Some studies found that peer support was an important factor that positively influenced children and adolescents' participation in sport (Duncan, 2015; Howie et al., 2020; Kubayi et al., 2014; Milošević & Vesković, 2013). In addition, high levels of social support from friends and peers often encouraged both adolescent male and female participation in organised sport (Agata & Monyeki, 2018).

Strengths and Limitations

The current study provides data and information about a topic which is described as limited in an African setting. The questionnaire on organised sport participation was carefully designed and validated for the African setting. The current study was conducted during the COVID-19 global pandemic that could also have influenced adolescent participation in organised. A limitation of the study was the use of convenience sampling and the limited number of school grades for data collection. In addition, the numbers of male and female participants were not balanced and may have resulted in biased reporting of results. Furthermore, the results of the study were based on the subjective reporting by participants.

CONCLUSION

Approximately two-thirds of adolescent school learners participated in organised sport, but the tendency was lower at present compared to past participation. Also, adolescent males had higher participation levels, both in the past and in the present, compared to adolescent females. Both adolescent males and females had unacceptably high dropout rates from organised sport and indicates the need for urgent attention by all relevant role-players. Adolescents of high SES were more likely than adolescents of middle and low SES to participate in organised sport, but adolescents of high SES also showed a larger decline in organised sport participation. Adolescent participation was significantly related to parental, sibling, and friend participation. Most concerning is that about a third of adolescent participants indicated that they had never participated in organised sport, neither in the past nor in the present, especially adolescent females, which is an indictment specifically against the education and sport institutions and government as a whole, and demands urgent attention.

References

Agata, K., & Monyeki, M. A. (2018). Association between sport participation, body composition, physical fitness, and social correlates among adolescents: The PAHL study. *International Journal of Environmental Research and Public Health*, *15*(12), 1–16. https://doi.org/10.3390/ijerph15122793

Ali, M., Nezhad, H., Rahmati, M. M., & Nezhad, M. M. (2012). Relationship between social-economic status of family and adolescents student sport participation. *Annals of Biological Research*, *3*(8), 4012–4016.

Allender, S., Cowburn, G., & Foster, C. (2006). Understanding participation in sport and physical activity among children and adults: A review of qualitative studies. *Health Education Research*, *21*(6), 826–835. https://doi.org/10.1093/her/cyl063

Al-Sobayel, H., Al-Hazzaa, H. M., Abahussain, N. A., Qahwaji, D. M., & Musaiger, A. O. (2015). Gender differences in leisure-time versus non-leisure-time physical activity among Saudi adolescents. *Annals of Agricultural and Environmental Medicine*, *22*(2), 344–348. https://doi.org/10.5604/12321966.1152091

Aubert, S., Barnes, J. D., Abdeta, C., Nader, P. A., Adeniyi, A. F., Aguilar-Farias, N., Tenesaca, D. S. A., Bhawra, J., Brazo-Sayavera, J., Cardon, G., Chang, C. K., Delisle Nyström, C., Demetriou, Y., Draper, C. E., Edwards, L., Emeljanovas, A., Gába, A., Galaviz, K. I., González, S. A., … Tremblay, M. S. (2018). Global Matrix 3.0 physical activity Report Card grades for children and youth: Results and analysis from 49 countries. *Journal of Physical Activity and Health*, *15*, S251–S273. https://doi.org/10.1123/jpah.2018-0472

Balish, S. M., McLaren, C., Rainham, D., & Blanchard, C. (2014). Correlates of youth sport attrition: A review and future directions. *Psychology of Sport and Exercise*, *15*(4), 429-439.

Basterfield, L., Gardner, L., Reilly, J. K., Pearce, M. S., Parkinson, K. N., Adamson, A. J., Reilly, J. J., & Vella, S. A. (2016). Can't play, won't play: longitudinal changes in perceived barriers to participation in sports clubs across the child–adolescent transition. *BMJ Open Sport & Exercise Medicine*, *2*(1), e000079. https://doi.org/10.1136/bmjsem-2015-000079

Basterfield, L., Reilly, J. K., Pearce, M. S., Parkinson, K. N., Adamson, A. J., Reilly, J. J., & Vella, S. A. (2015). Longitudinal associations between sports participation, body composition and physical activity from childhood to adolescence. *Journal of Science and Medicine in Sport*, *18*(2), 178–182. https://doi.org/10.1016/j.jsams.2014.03.005

Boyes, R., O'Sullivan, D. E., Linden, B., McIsaac, M., & Pickett, W. (2017). Gender-specific associations between involvement in team sport culture and canadian adolescents' substance-use behavior. *SSM - Population Health*, *3*, 663–673. https://doi.org/10.1016/j.ssmph.2017.08.006

Deaner, R. O., Balish, S. M., & Lombardo, M. P. (2016). Sex differences in sports interest and motivation: An evolutionary perspective. *Evolutionary Behavioral Sciences*, *10*(2), 73–97. https://doi.org/10.1037/ebs0000049

Deelen, I., Ettema, D., & Kamphuis, C. B. M. (2018). Time-use and environmental determinants of dropout from organized youth football and tennis. *BMC Public Health*, *18*(1), 1–15. https://doi.org/10.1186/s12889-018-

5919-2

Draper, C. E., Tomaz, S. A., Bassett, S. H., Burnett, C., Christie, C. J., Cozett, C., De Milander, M., Krog, S., Monyeki, A., Naidoo, N., Naidoo, R., Prioreschi, A., Walter, C., Watson, E., & Lambert, E. V. (2018). Results from South Africa's 2018 report card on physical activity for children and youth. *Journal of Physical Activity and Health*, *15*(2), S406–S418. https://doi.org/10.1123/JPAH.2018-0517

Drummond, M., Elliott, S., Drummond, C., & Prichard, I. (2020). Youth sport and COVID-19: a potential generation lost. *Emerald Open Research*, *2*, 27. https://doi.org/10.35241/emeraldopenres.13661.1

Duncan, S. C. (2015). Personal, Family, and Peer Correlates of General and Sport Physical Activity among African American, Latino, and White Girls. *Journal of Health Disparities Research and Practice*, *8*(2), 12–28. http://digitalscholarship.unlv.edu/jhdrp/

Ebrahimi, A., Mehdi Pour, A., Azmsha, T., & Hatami, M. (2015). Study the relationship between socioeconomic status (ses) and sports participation (Case study: ahvaz city). In *International Research Journal of Applied and Basic Sciences*. www.irjabs.com

Eime, R., Harvey, J., & Charity, M. (2018). Girls' transition from participation in a modified sport program to club sport competition - A study of longitudinal patterns and correlates. *BMC Public Health*, *18*(1). https://doi.org/10.1186/s12889-018-5609-0

Eime, R. M., Harvey, J., Charity, M. J., Casey, M., Westerbeek, H., & Payne, W. R. (2017). The relationship of sport participation to provision of sports facilities and socioeconomic status: a geographical analysis. *Australian and New Zealand Journal of Public Health*, *41*(3), 248–255. https://doi.org/10.1111/1753-6405.12647

Eime, R. M., Harvey, J. T., Charity, M. J., Casey, M. M., Westerbeek, H., & Payne, W. R. (2016). Age profiles of sport participants. *BMC Sports Science, Medicine and Rehabilitation*, *8*(1). https://doi.org/10.1186/s13102-016-0031-3

Eime, R. M., Harvey, J. T., Craike, M. J., Symons, C. M., & Payne, W. R. (2013). *Family support and ease of access link socio-economic status and sports club membership in adolescent girls: a mediation study*. http://www.ijbnpa.org/content/10/1/50

Eliasson, I., & Johansson, A. (2021). The disengagement process among young athletes when withdrawing from sport: A new research approach. *International Review for the Sociology of Sport*, *56*(4), 537–557. https://doi.org/10.1177/1012690219899614

Fourie, J., Slabbert, E., & Saayman, M. (2011). The leisure and sport participation patterns of high school learners in Potchefstroom. *South African Journal for Research in Sport, Physical Education and Recreation*, *33*(1), 65–80. https://doi.org/10.4314/sajrs.v33i1.65488

Frömel, K., Groffik, D., Chmelík, F., Cocca, A., & Skalik, K. (2018). Physical activity of 15–17 years old adolescents in different educational settings: A Polish-Czech study. *Central European Journal of Public Health*, *26*(2), 137–143. https://doi.org/10.21101/cejph.a4521

Gallant, F., Brunet, J., Bélanger, M., Sabiston, C. M., & O'Loughlin, J. L. (2017). Childhood Sports Participation and Adolescent Sport Profile. *Pediatrics*, *140*(6), e20171449. https://doi.org/10.1542/peds.2017-1449

Hassan, A. (2016). Socio-economic status and sports participation of physical education students of Kashmir valley (J&K). *~ 115 ~ International Journal of Physiology*, *1*(1), 115–118. www.journalofsports.com

Hesketh, K. D., Booth, V., Cleland, V., Gomersall, S. R., Olds, T., Reece, L., Ridgers, N. D., Straker, L., Stylianou, M., Tomkinson, G. R., & Lubans, D. (2023). Results from the Australian 2022 Report Card on physical activity for children and young people. *Journal of Exercise Science and Fitness*, *21*(1), 83–87. https://doi.org/10.1016/j.jesf.2022.10.006

Holt, N. L., Kingsley, B. C., Tink, L. N., & Scherer, J. (2011). Benefits and challenges associated with sport participation by children and parents from low-income families. *Psychology of Sport and Exercise*, *12*(5), 490–499. https://doi.org/10.1016/j.psychsport.2011.05.007

Holt, N. L., Pankow, K., Tamminen, K. A., Strachan, L., MacDonald, D. J., Fraser-Thomas, J., Côté, J., & Camiré, M. (2018). A qualitative study of research priorities among representatives of Canadian Provincial Sport Organizations. *Psychology of Sport and Exercise*, *36*(October 2017), 8–16. https://doi.org/10.1016/j.psychsport.2018.01.002

Hopwood, M. J., Farrow, D., MacMahon, C., & Baker, J. (2015). Sibling dynamics and sport expertise. *Scandinavian journal of medicine & science in sports*, *25*(5), 724-733.

Howie, E. K., Daniels, B. T., & Guagliano, J. M. (2020). Promoting Physical Activity Through Youth Sports Programs: It's Social. *American Journal of Lifestyle Medicine*, *14*(1), 78–88. https://doi.org/10.1177/1559827618754842

Howie, E. K., McVeigh, J. A., Smith, A. J., & Straker, L. M. (2016). Organized Sport Trajectories from Childhood to Adolescence and Health Associations. *Medicine and Science in Sports and Exercise*, *48*(7), 1331–1339. https://doi.org/10.1249/MSS.0000000000000894

Kelly, A. L., Erickson, K., Pierce, S., & Turnnidge, J. (2020). Youth Sport and COVID-19: Contextual, Methodological, and Practical Considerations. *Frontiers in Sports and Active Living*, *2*. https://doi.org/10.3389/fspor.2020.584252

Koloba, H. A., & Surujlal, J. (2014). Factors and Challenges Associated with Participation in Community Sport in Eldorado Park, Johannesburg, South Africa. *Mediterranean Journal of Social Sciences*, *September 2014*.

https://doi.org/10.5901/mjss.2014.v5n20p30

Kubayi, N A, Toriola, A. L., & Monyeki, M. A. (2013). Barriers to school sport participation: A survey among secondary school students in Pretoria, South Africa). Barriers to school sport participation: A survey among secondary school students in Pretoria. In *South Africa. African Journal for Physical* (Vol. 19, Issue 2).

Kubayi, Ntwanano Alliance. (2015). Female Sport Participation In South African Rural Schools: Analysis Of Socio-Cultural Constraints. *European Review Of Applied Sociology*, *8*(10), 6–10. https://doi.org/10.1515/eras-2015-0001

Kwon, S., Janz, K. F., Letuchy, E. M., Burns, T. L., & Levy, S. M. (2015). Developmental trajectories of physical activity, sports, and television viewing during childhood to young adulthood: Iowa bone development study. *JAMA Pediatrics*, *169*(7), 666–672. https://doi.org/10.1001/jamapediatrics.2015.0327

Lagestad, P. (2019). Differences between adolescents staying in and dropping out of organized sport: A longitudinal study. *Journal of Physical Education and Sport*, *19*(2), 444–452. https://doi.org/10.7752/jpes.2019.s2065

Logan, K., Cuff, S., LaBella, C. R., Brooks, M. A., Canty, G., Diamond, A. B., Hennrikus, W., Moffatt, K., Nemeth, B. A., Pengel, K. B., Peterson, A. R., Stricker, P. R., Bagnall, D. W., Solomon, J., Halstead, M. E., Faigenbaum, A. D., Gregory, A. J. M., Kinsella, S. B., & Emanuel, A. (2019). Organized sports for children, preadolescents, and adolescents. *Pediatrics*, *143*(6). https://doi.org/10.1542/peds.2019-0997

Lounassalo, I., Salin, K., Kankaanpaä, A., Hirvensalo, M., Palomäki, S., Tolvanen, A., Yang, X., & Tammelin, T. H. (2019). Distinct trajectories of physical activity and related factors during the life course in the general population: A systematic review. In *BMC Public Health* (Vol. 19, Issue 1). BioMed Central Ltd. https://doi.org/10.1186/s12889-019-6513-y

Mandic, S., Bengoechea, E. G., Stevens, E., Leon de la Barra, S., & Skidmore, P. (2012). Getting kids active by participating in sport and doing It more often: focusing on what matters. *International Journal of Behavioral Nutrition and Physical Activity*, *9*(1), 1. https://doi.org/10.1186/1479-5868-9-86

Manz, K., Krug, S., Schienkiewitz, A., & Finger, J. D. (2016). Determinants of organised sports participation patterns during the transition from childhood to adolescence in Germany: Results of a nationwide cohort study. In *BMC Public Health* (Vol. 16, Issue 1). BioMed Central Ltd. https://doi.org/10.1186/s12889-016-3615-7

Marques, A., Martins, J., Sarmento, H., Diniz, J., & da Costa, F. C. (2014). Adolescents' physical activity profile according to parental physical activity participation. *Journal of Human Sport and Exercise*, *9*(1), 81–90. https://doi.org/10.4100/jhse.2014.91.09

Mchunu, S., & Le Roux, K. (2011). Non-participation in sport by black learners with special reference to gender, grades, family income and home environment. *South African Journal for Research in Sport, Physical Education and Recreation*, *32*(1), 85–98. https://doi.org/10.4314/sajrs.v32i1.54102

Merkel, D. L. (2013). OAJSM-33556-youth-sports---risky-business-or-a-necessary-evil-. *Open Access Journal of Sports Medicine*, *4*, 151–160. https://doi.org/10.2147/OAJSM.S33556

Milošević, V., & Vesković, A. (2013). Family as an agent for sport socialization of youth. *Serbian Journal of Sports Sciences*, *7*(3).

Møllerløkken, N. E., Lorås, H., & Pedersen, A. V. (2015). A systematic review and meta-analysis of dropout rates in youth soccer. *Perceptual and motor skills*, *121*(3), 913-922.

Osai, K. V, & Whiteman, S. D. (2017). Family Relationships and Youth Sport: Influence of Siblings and Parents on Youth's Participation, Interests, and Skills. *Journal of Amateur Sport*, *3*(3), 86–105. https://doi.org/10.17161/jas.v3i3.6518

Qurban, H., Siddique, H., Wang, J., Morris, T., & Kashmir Pakistan, A. (2018). *The Relation between Sports Participation and Academic Achievement: The Mediating Role of Parental Support and Self-Esteem*. www.openaccesspub.org

Rodrigues, D., Padez, C., & Machado-Rodrigues, A. M. (2018). Active parents, active children: The importance of parental organized physical activity in children's extracurricular sport participation. *Journal of Child Health Care*, *22*(1), 159–170. https://doi.org/10.1177/1367493517741686

Santos, M. P., Esculcas, C., & Mota, J. (2016). The Relationship between Socioeconomic Status and Adolescents' Organized and Nonorganized Physical Activities. *Pediatric Exercise Science*, *16*(3), 210–218. https://doi.org/10.1123/pes.16.3.210

Shull, E. R., Dowda, M., Saunders, R. P., McIver, K., & Pate, R. R. (2020). Sport participation, physical activity and sedentary behavior in the transition from middle school to high school. *Journal of Science and Medicine in Sport*, *23*(4), 385–389. https://doi.org/10.1016/j.jsams.2019.10.017

Singh Rana, K., & Lehri, A. (2019). Effect of Sports Participation on Academic Achievements among Boys. *Journal of Exercise Science and Physiotherapy*, *14*(2), 2018–2021. https://doi.org/10.18376/jesp/2018/v14/i2/111308

Somerset, S., & Hoare, D. J. (2018). Barriers to voluntary participation in sport for children: A systematic review. *BMC Pediatrics*, *18*(1). https://doi.org/10.1186/s12887-018-1014-1

Strandbu, Å., Bakken, A., & Stefansen, K. (2019). The continued importance of family sport culture for sport participation during the teenage years. *Sport, Education and Society*, *0*(0), 1–15. https://doi.org/10.1080/13573322.2019.1676221

Sukys, S., Lisinskiene, A., & Tilindiene, I. (2015). Adolescents' participation in sport activities and attachment to parents and peers. *Social Behavior and Personality*, *43*(9), 1507–1518. https://doi.org/10.2224/sbp.2015.43.9.1507

Uys, M., Bassett, S., Draper, C. E., Micklesfield, L., Monyeki, A., De Villiers, A., & Lambert, E. V. (2016). Results from South Africa's 2016 report card on physical activity for children and youth. *Journal of Physical Activity and Health*, *13*(11), S265–S273. https://doi.org/10.1123/jpah.2016-0409

Vella, S. A., Cliff, D. P., & Okely, A. D. (2014). Socio-ecological predictors of participation and dropout in organised sports during childhood. *International Journal of Behavioral Nutrition and Physical Activity*, *11*(1), 1-10.

Wijtzes, A. I., Jansen, W., Bouthoorn, S. H., Pot, N., Hofman, A., Jaddoe, V. W. V., & Raat, H. (2014). Social inequalities in young children's sports participation and outdoor play. *International Journal of Behavioral Nutrition and Physical Activity*, *11*(1), 1–10. https://doi.org/10.1186/s12966-014-0155-3

Wilson, O. W. A., Ikeda, E., Hinckson, E., Mandic, S., Richards, J., Duncan, S., Kira, G., Maddison, R., Meredith-Jones, K., Chisholm, L., Williams, L., & Smith, M. (2023). Results from Aotearoa New Zealand's 2022 Report Card on Physical Activity for Children and Youth: A call to address inequities in health-promoting activities. *Journal of Exercise Science and Fitness*, *21*(1), 58–66. https://doi.org/10.1016/j.jesf.2022.10.009

Wilson, O. W. A., Whatman, C., Walters, S., Keung, S., Enari, D., Rogers, A., Millar, S. K., Ferkins, L., Hinckson, E., Hapeta, J., Sam, M., & Richards, J. (2022). The Value of Sport: Wellbeing Benefits of Sport Participation during Adolescence. *International Journal of Environmental Research and Public Health*, *19*(14). https://doi.org/10.3390/ijerph19148579