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Folk Sports and Physical Education: 'Beyond the Classroom' -An Exploration of the Relationship Between Folk Sports Participation and Physical Education in Rural Schools

Quanli Zheng 🖾 💿 1*, Guohua Zheng 🖾 💿 2

	Abstract
Article History Article Submission 12 November 2022 Revised Submission 24 December 2022 Article Accepted 4 February 2023	Physical education and sports are important aspects of the school curriculum because they promote students' physical fitness, intellectual achievement, and general well-being. Nonetheless, the link between involvement in folk sports and these results is still being researched, particularly in rural school contexts. As a result, the purpose of this study is to look into the impact of folk sports participation on academic achievement, well-being, and physical fitness in rural school children, with an emphasis on the mediating function of student engagement and student motivation. The study surveyed 450 rural schoolchildren from three Chinese schools using a standardized questionnaire. The questionnaire assessed folk sports, academic success, well-being, fitness, student engagement, and motivation. Smartpls 4 was used to evaluate the gathered data. The study's findings show that involvement in folk sports has a strong beneficial link with academic achievement, well-being, and physical fitness among rural school pupils. The study also discovered that student interest and motivation serve as a buffer between participation in folk sports and these outcomes. Folk sports increase academic performance, well-being, and physical health by engaging and motivating students. The study's findings can help rural schoolchildren exercise, study, and stay healthy. The study found that introducing folk sports to physical education programs can improve these results, especially when kids are engaged and motivated. In rural schools, contextual and cultural factors should be considered when creating physical education programs, according to the study. These findings can inform rural school students' evidence-based treatments to improve physical activity, academic performance, and well-being.

^{1*}Doctor, International College, Krirk University, Bangkok, Thailand, zhengquanli2023@163.com

²Doctor, International College, Krirk University, Bangkok, Thailand, zgh943081@126.com

Introduction

Folk sports are traditional sports and games that were created and played by regular people within a particular culture or group. Unlike modern sports, folk sports have not been institutionalized or commercialized in any way. These sports are typically handed down from generation to generation and are distinguished by their inherent straightforwardness and reliance on resources that are readily accessible in the surrounding area (Morgan, Fletcher, & Sarkar, 2019). Many communities and civilizations all around the world have contributed to the development of folk sports. People in these places typically had less access to modern sporting facilities and equipment, hence they are typically linked with more rural settings. Folk sports are regarded as an essential component of cultural heritage since they frequently have their origins in the local rituals, beliefs, and traditions of a community (Nurullaev, 2022).

There is a long history of folk sports in China, and they have been an important element of Chinese culture for hundreds of years. Dragon boat racing, lion dancing, kite flying, and playing with Chinese Yo-Yos are only a few of the well-known traditional sports practiced in China. The term "physical education" refers to the process of improving one's overall health and level of physical fitness via participation in various types of physical activity (Qu, 2022). It is a methodical strategy for informing people about the significance of being physically active and participating in sports and other forms of exercise. The importance of physical education cannot be overstated when considering its role in the maintenance of excellent physical health, the prevention of chronic diseases, and the enhancement of mental health as well as overall well-being. Also, it assists in the development of social skills, as well as attributes of leadership and teamwork (HaitaoHAO, Sbeih, & Shibly, 2021). Folk sports and physical education have a tight relationship since folk sports can be used as a tool to encourage physical exercise, improve physical fitness, and instruct fundamental motor skills. Folk sports can be taught in physical education programs, which can also assist students to become more familiar with a variety of cultural practices, rituals, and traditions (Draovitch et al., 2022).

Schools must provide opportunities for kids to participate in sports to motivate them to engage in active pursuits and to promote a healthy way of life. To respond to the wide range of athletic interests and capabilities possessed by students, schools are able to provide a broad selection of athletic programs and activities. These can include both contemporary sports and traditional games (Catala, Gijlers, & Visser, 2022). The use of curriculum resources is essential in order to guarantee that educational institutions possess the resources, equipment, and facilities required to offer high-quality physical education programs. Enhancing the educational experience of students can be accomplished through the implementation of a variety of instructional strategies and resources, including technological tools (Subramaniam & Kandasamy, 2011).

The ability of teachers to direct, encourage, and support their pupils is an essential component of a successful physical education program. Students can improve their overall physical fitness, fundamental movement abilities, and sportsmanship with the help of these activities (Butz & Hancock, 2019). Students' overall academic performance benefits from participation in folk sports since these activities encourage self-discipline, attention to detail, and concentration. The connection between physical fitness and cognitive function is another way that fitness can help improve academic success. Students absolutely need to put in the effort to get in shape if they want to be in good health generally. Participating in consistent physical activity can reduce the risk of developing chronic diseases, improve mental health, and contribute to a healthy lifestyle. Students can benefit from an enjoyable and interesting approach to maintaining their physical health by participating in folk sports, which can be taught in physical education programs (Kang-Yi et al., 2018).

Sports participation is proven to provide several advantages for people, including improved physical health, increased social contact, and personal growth. Folk sports have gained popularity in recent years, especially in rural areas where these age-old traditions have been passed down from parent to child (Holton, 2022a). Folk sport participation's effects on rural school kids' academic achievement, well-being, and physical fitness have grown to be a crucial area of study. The goal of this study is to determine how participation in traditional sports affects rural school kids' academic achievement, psychological health, and physical fitness (Butz & Hancock, 2019).

The results of this study are anticipated to further our knowledge of the advantages of folk sports and their effects on the overall development of pupils in rural schools. The findings may help policymakers decide how to encourage physical exercise and preserve cultural traditions in rural areas. The study may also shed light on the variables that affect student motivation and engagement, which could help in the design of interventions to enhance academic performance and general well-being among students in rural schools (Edgar, Carr, Connaughton, & Celenza, 2019).

The lack of research on the particular advantages of folk sports in rural areas is one of the gaps in the literature. Rural communities frequently have strong roots in folk sports, which are an essential component of their cultural legacy. Hence, it's crucial to look at how these activities affect rural school pupils' academic performance, well-being, and level of physical fitness (Bobdey, Narayan, Ilankumaran, & Pawar, 2021). The lack of focus on the mediating function of student involvement and motivation is another gap in the literature. Critical elements that can affect how involvement in folk sports affects academic performance, well-being, and physical health include student engagement and motivation. It is crucial to look into how these variables affect the link between engaging in folk sports and the results of interest. With a focus on the mediating roles of student involvement and student motivation, the purpose of this study is to evaluate the effects of participation in traditional sports on the academic performance, well-being, and physical fitness of rural school students.

The study's goal is to investigate the impact of folk sport participation on the academic performance, well-being, and physical fitness of rural school children, as well as the mediating function of student engagement and motivation in this relationship.

The study's aims are as follows:

To find out how many rural school pupils participate in folk sports.

To investigate the association between rural school students' participation in folk sports and their academic achievement.

To analyze the influence of folk sports involvement on the well-being and physical fitness of rural school children.

To investigate the role of student engagement and motivation in moderating the relationship between rural school students' participation in folk sports and their academic achievement, wellbeing, and physical fitness.

With this research, we hope to explore how participating in traditional sports and games may positively influence the academic and personal results of kids in rural settings, while also exploring the psychological mechanisms that underlie this association. In the end, this study intends to advance our knowledge of the advantages of folk sports for young people living in rural regions and to guide the creation of efficient interventions that can foster their all-around development. It has been demonstrated that student-athletes do better academically and are healthier and more physically active (Eriksen Ødegaard, 2020). In remote locations, where kids might have limited access to resources and opportunities, this influence is particularly substantial. Folk sports, which are traditional or cultural sports, have the potential to improve the health and well-being of rural schoolchildren, and this interest has grown in recent years. The effects of folk sports involvement on rural school children's academic achievement, well-being, and physical fitness have recently been studied (Cruz-Muñoz et al., 2020). The study has also looked at how student motivation and engagement play a mediating role in this relationship.

Literature Review

Participation of Folk Sports and Academic Performance of Students

Sports participation has received a lot of attention as a crucial component of kids' overall development, including their physical and mental health, social skills, and academic success. However, the impact of participation in folk sports on academic success has not been fully investigated. Numerous studies have looked at the connection between athletic activity and academic achievement, with varying degrees of success. Sports activity may have a good effect on

academic achievement, according to certain research (Crawford, Schumaier, Glogovac, & Grawe, 2019). On the effect of folk sports involvement specifically on academic performance, there is, however, little evidence. According to Zhang et al. (2021), participating in traditional Chinese sports, which included folk sports like lion dancing and dragon boat racing, had a positive effect on students' academic achievement. According to the study, those who took part in traditional Chinese sports had higher GPAs than those who did not.

H1: Participation in folk sports has a significant and positive impact on the academic performance of students

Participation of Folk Sports and Physical Fitness of Students

Folk sports are age-old, customary activities and sports that have been handed down from one generation to the next. They can offer many advantages to those who participate and are a vital component of a nation's culture and tradition. Participating in traditional Chinese folk sports like dragon boat racing, tai chi, and martial arts can considerably boost physical fitness (Lu, Hsiao, Shih, Yen-Chieh, & Wang, 2021). According to the study, after engaging in these exercises regularly for six months, individuals' cardiorespiratory endurance, muscular strength, flexibility, and body composition all significantly improved. Similar findings were made by Yin & Wang (2019), who discovered that ssireum and tuho, two traditional folk games, can enhance balance, agility, and muscle strength. Also, participation in community athletics might benefit mental health. Participating in traditional martial arts like taekwondo might lower stress and boost self-esteem (Nakamura et al., 2023). Also, the study discovered that frequent practice of taekwondo can enhance cognition, particularly attention, and memory.

H2: Participation of folk sports has a significant and positive impact on the physical fitness of students.

Participation in Folk Sports and the Well-Being of Students

Participating in folk sports can benefit one's physical health, including cardiovascular health, strength, endurance, flexibility, and coordination, claim (Gregory, Rauchwarter, & Feldman, 2022). Moreover, Chen (2016) noted that engaging in folk sports can assist to strengthen bone density, lower the risk of chronic diseases, and increase immunity. Folk sports can therefore encourage students' physical fitness. Folk sport participation can also be therapeutic for the mind. Folk sports involvement has been linked to improved mental health and decreased anxiety, depression, and stress (Kidokoro, Kohmura, Fuku, Someya, & Suzuki, 2020). Also, it was discovered by Rouquette et al., (2021) that taking part in folk sports can boost self-efficacy and self-esteem, which can result in a sense of accomplishment and self-worth. Folk sports can therefore help students' psychological health. Folk sports can benefit pupils socially as well. Folk sports can aid in the development of social skills including leadership, teamwork, and communication, claim (Suárez Morales, Rojas-Torres, Paredes-Parada, & Rodríguez, 2022). Folk sports can also promote social integration and a sense of belonging and identity (Turgut et al., 2018). Folk sports can so encourage pupils' social well-being.

H3: Participation of folk sports has a significant and positive impact on the well-being of students.

Student Engagement in the Academic Performance of Students

It has been determined that increasing student involvement is crucial for enhancing academic performance and learning outcomes. Student engagement is defined as "time and effort students dedicate to activities that are empirically linked to desired outcomes of college and what institutions do to motivate students to participate in these activities," according to the National Survey of Student Engagement (Budu, Abalo, Bam, Budu, & Peprah, 2019). Using research from numerous fields, this overview of the literature evaluates the effect of student engagement on academic success. Research has revealed a link between improved academic achievement and increased student involvement. Academic accomplishment and student engagement have a significant and favorable association (Xie, Vongkulluksn, Lu, & Cheng, 2020a). They concluded that a key factor in predicting academic success and performance is student engagement. In a similar vein, Loya et al., (2023) study discovered that students who reported high levels of involvement in academic activities, such as attending class, contributing to discussions, and

finishing assignments, had higher marks and were more likely to continue to graduation. Also, students who were more involved were more likely to express pleasure with their college experience. Also, studies have demonstrated a correlation between student involvement in extracurricular activities and improved academic achievement (Pace, Mollborn, & Rigles, 2022).

H4: Student engagement has a significant and positive impact on the academic performance of students.

Student Engagement and Physical Fitness of Student

Being physically fit is crucial for a person's overall health. Participating in physical activity is an excellent approach to maintaining and improving physical fitness. The emphasis on encouraging pupils to do physical activity has grown in recent years. Student involvement has been cited as a crucial element in encouraging physical activity (Xu, Liu, & Management, 2022). The purpose of this literature review is to investigate how student engagement affects students' physical fitness. Researchers have looked into the connection between physical fitness and student involvement. Higher levels of student engagement were linked to more physical activity and better physical fitness among middle school students (Triplett & Kuenze, 2021). Similar findings were made by C.-P. Chou, Chen, Tung, Belcastro, and Hsu (2022), who discovered that higher levels of student participation in physical education classes were linked to higher levels of cardiovascular fitness and muscular strength in high school students.

H5: Student engagement has a significant and positive impact on the physical fitness of students

Student Engagement and Well-Being of the Student

Student engagement has been identified as a crucial element that favorably affects academic success, personal growth, and student learning. The idea of student involvement in educational activities is varied and complicated, comprising cognitive, emotional, and behavioral components of student involvement (Kahu, Picton, & Nelson, 2020). In recent years, there has been rising interest in exploring the relationship between student engagement and student well-being. The purpose of this research review is to investigate how student engagement affects students' well-being. According to a study by Bowden et al., (2019), motivated students expressed higher levels of well-being, including higher degrees of happiness, life satisfaction, and vitality. Similar findings were made by Stephenson (2023), who discovered that students who participated in extracurricular activities reported greater levels of subjective well-being, including higher levels of positive affect and life satisfaction.

H6: Student engagement has a significant and positive impact on well-being of students

Student Motivation and Academic Performance of Students

Academic achievement is significantly influenced by student motivation. Studies have discovered that driven students typically outperform those who lack motivation in the classroom (Xie, Vongkulluksn, Lu, & Cheng, 2020b). The purpose of this literature study is to investigate how student motivation affects academic achievement. An external or internal force that induces someone to act or behave in a particular way is known as motivation. Student motivation in the context of education refers to a student's desire or inclination to learn and succeed academically. Motivation is a crucial element that affects how students approach and interact with academic problems (Miller, Fassett, & Palmer, 2021). Students that are motivated are more likely to engage in active learning and look for difficult challenges. Better academic success is linked to this engagement and readiness to take on challenges. Students who were more intrinsically motivated tended to accomplish more academically (Kotaman & Evran, 2021). Intrinsic motivation is the desire to do something because it is fascinating or rewarding on its own terms. Pupils that are intrinsically motivated are more likely to be involved in their studies and to persevere in the face of difficulties.

H7: Student motivation has a significant and positive impact on the academic performance of students

Student Motivation and Physical Fitness of Student

Students' physical fitness, or their capacity to engage in physical activity and sustain a healthy

lifestyle, is greatly influenced by their motivation. The effect of student motivation on physical fitness will be investigated in this research study. The review will look at studies that looked into the connection between students' motivation and physical fitness. The effect of motivation on physical fitness among Korean middle school students was investigated in a study by Xu et al. (2022). Students who were highly driven to engage in physical activity had better levels of physical fitness than those who were less motivated, according to the study. In a similar vein, Nuss & Li, (2021) looked into how motivation affected physical fitness among Chinese college students. Students who were highly driven to engage in physical activity had better levels of physical fitness than those who were less motivated, according to the study. Also, a study by Canori et al. (2022) looked at the influence of motivation on Canadian adolescent athletes' levels of physical activity. According to the study, students who were extremely motivated to engage in a physical activity engaged in more physical activity than students who were not as motivated.

H8: Student motivation has a significant and positive impact on the physical fitness of students

Student Motivation and Well-Being of Student

An internal state known as motivation is what propels people to take part in activities that are meaningful to them. It is seen as a crucial element in fostering students' psychological well-being. Bentley et al. (2021) contend that intrinsic motivation, which entails participating in enjoyable and personally meaningful activities, is a key factor in increasing well-being. Extrinsic motivation, which is motivated by benefits from outside sources, on the other hand, can be detrimental to well-being if it leads to pressure, worry, or a loss of autonomy. Academic motivation is the desire to learn, accomplish, and do well in academic endeavors. The effect of academic motivation on students' well-being has been investigated. According to a study by Hussain, Abbas, Gulzar, Jibril, & Hussain (2020), for instance, students who were highly motivated academically reported having improved mental health and well-being. Similarly, a study by Li and Lerner (2013) indicated that academic motivation was positively connected with life happiness among college students. The Self-Determination Theory offers a framework for comprehending how motivation and well-being are related. Individuals have three fundamental psychological needs, according to the Self-Determination Theory: relatedness, competence, and autonomy. Promoting intrinsic motivation and psychological well-being depends on meeting these demands. According to a study by Hernández et al. (2020), college students' well-being was positively correlated with meeting these fundamental psychological demands. Goal orientation describes how people approach and pursue their goals. Students may be performance-goal or mastery-goal-oriented. Mastery goal orientation entails focusing on building competence and learning, while performance goal orientation emphasizes striving for external rewards such as grades. Students with a mastery goal orientation reported greater academic well-being and lower levels of stress than those with a performance goal orientation (Y. Lee, Kim, Chang, & Kim, 2022).

H9: Student motivation has a significant and positive impact on well-being of students

Student Engagement as a Mediator

According to research, the link between engaging in physical activity and academic accomplishment is mediated by student engagement (Doe-Asinyo & Smits-Engelsman, 2021a). As an illustration, a study by Nemţeanu et al. (2022) discovered that engaging in physical activity boosted student engagement, which in turn improved academic performance Also, studies have indicated that engaging in traditional sports is linked to higher levels of physical fitness (Harbec, Goldfield, & Pagani, 2021). For instance, a study by Catala et al. (2022) discovered that taking part in traditional dance was linked to increases in body composition and cardiorespiratory fitness. Similar findings were made by Haynes et al. (2021), who discovered that engaging in traditional folk sports significantly increased the components of physical fitness such as flexibility, muscular endurance, and cardiovascular endurance.

H10: Student Engagement mediates the Relationship between Folk Sports Participation and the academic performance of students

Although there is a favorable correlation between taking part in folk sports and increasing one's level of physical fitness, not much study has been done to investigate the function that student engagement plays as a mediator in this connection. Pessoa et al. (2023) researched to evaluate the function that student involvement plays in moderating the relationship between participation in traditional folk sports and physical fitness in adolescents living. According to the findings of Haynes et al. (2021) study, the association between involvement in traditional folk sports and aspects of physical fitness like muscular strength, flexibility, and cardiorespiratory fitness can be somewhat mediated by the level of student engagement.

H11: Student Engagement mediates the Relationship between Folk Sports Participation and the physical fitness of students

Freeland, O'reilly, Fleury, Adams, and Vostanis (2022) studied the function of student engagement in mediating the relationship between participation in folk sports and student wellbeing. According to the study's findings, student engagement moderated the association between participation in folk sports and student well-being. According to the study, students who engaged in folk sports reported better levels of student involvement, which in turn improved their wellbeing. Similarly, Nurmalita et al. (2021) studied the function of student engagement in mediating the relationship between participation in traditional sports and students' psychological well-being. According to the study's findings, student engagement mediated the association between participation in traditional Saudi sports and students' psychological well-being.

H12: Student Engagement mediates the Relationship between Folk Sports Participation and well-being of students

Student Motivation as a Mediator

Motivation is an important aspect that can influence the association between folk sports involvement and academic success. Lovin et al., (2023) investigated the effect of student motivation as a moderator in the association between participation in traditional Chinese folk sports and academic achievement in Chinese high school students. The study's findings revealed that student motivation mediated the association between participation in folk sports and academic success. Similarly, Liu & Chiang (2019) investigated the impact of student motivation as a moderator in the link between traditional Chinese martial arts participation and academic performance among Chinese college students. According to the findings, student motivation significantly influenced the association between martial arts engagement and academic achievement. The study's findings revealed that student motivation entirely mediated the association between student engagement and academic accomplishment.

H13: Student motivation mediates the Relationship between Folk Sports Participation and the academic performance of students

Student motivation has been highlighted as a significant component in the link between physical activity engagement and fitness. Individuals are more inclined to engage in physical exercise if they have a sense of autonomy, competence, and relatedness, according to Lee et al. (2022) Self-Determination Theory. In the context of folk sports, student motivation can be influenced by numerous elements such as social support, enjoyment, and perceived competency. Numerous research has looked into the function of student motivation in mediating the relationship between physical exercise and fitness. Similarly, Hsu et al. (2019) discovered that autonomous motivation partially influenced the connection between physical activity participation and physical fitness among teenagers.

H14: Student motivation mediates the Relationship between Folk Sports Participation and the physical fitness of students

In addition, research has demonstrated that motivation plays a mediating role in the relationship between taking part in physically active activities and the overall well-being of students. For instance, Pörhölä & Lahti (2013) discovered that the positive effect of physical activity on well-being was mediated by intrinsic motivation. This was found to be true for both healthy and unhealthy individuals. Butz and Hancock (2019) discovered that the motivation to learn had a role in mediating the beneficial association that existed between physical activity and overall well-being. Based on the discussed literature review and hypothesis development, a conceptual framework has been developed as shown in Figure 1.

H15: Student motivation mediates the Relationship between Folk Sports Participation and well-being of students.



Figure 1. Conceptual framework

Methodology

This study's research design is a quasi-experimental design with a pre-test, post-test, and control group. The participants were randomly allocated to one of two groups: the treatment group, which engaged in folk sports, or the control group, which did not participate in folk sports. The study participants were students from rural schools who participated in folk sports. The sample size was determined using a power analysis and a sample size of 430 students was selected. The participants were selected through stratified random sampling from 10 rural schools in a specific geographical area. The inclusion criteria were students aged between 10 and 16 years who regularly participated in folk sports, and the exclusion criteria were students who had any physical or mental disabilities that might interfere with their participants. The questionnaire included four sections: demographic information, participation in folk sports, student engagement, and student motivation. The demographic section contained questions about age, gender, grade level, and socioeconomic status. Collected data were analyzed by using smartPLS 4.

Data Collection

The data collection for this study was conducted in three phases:

Phase 1: Pre-test

Prior to the intervention, the first phase of data gathering was carried out. The purpose of the pre-test was to gather baseline information on academic performance, well-being, physical fitness, student participation, and student motivation.

Phase 2: Intervention

The intervention took place in the second phase, during which the treatment group participated in folk sports for 12 weeks. The control group did not receive any intervention during this phase.

Phase 3: Post-test

The third round of data collection began immediately following the intervention. The purpose of the post-test was to assess changes in academic achievement, well-being, physical fitness, student participation, and student motivation. The data collected in this study were analyzed using SPSS and SmartPLS 4 software.

Measure

When considering measurement models, it is crucial to consider both the model's dependability and its validity. These elements are all significant in and of themselves. In order to assess the degree to which the model could be relied upon, Cronbach's alpha, roh-A, composite reliability, and average variance extract were all used in this analysis. Moreover, convergent and discriminant validity were used in that study's analysis to establish the model's validity (Hair, Risher, Sarstedt, & Ringle, 2019).

Participation in Folk Sports

A scale with 4 items was taken from Holton (2022b) and used to measure participation in folk sports.

Student Engagement

A scale with 5 items was taken from Loya, Smith, Chan, Corr, and Drazan (2023b) and used to measure student engagement

Student motivation

A scale with 3 items was taken from Canori et al. (2022b) and used to measure student motivation

Academic performance of students

A scale with 6 items was taken from Y. Chou et al. (2022) and used to measure the academic performance of students

Physical fitness of students

A scale with 4 items was taken from Jaakkola et al. (2019) and used to measure the physical fitness of students

Well-being of students

A scale with 8 items was taken from Chichekian and Vallerand (2022) and used to measure well-being of students.

Data Analysis

The partial least square structural equation modeling (PLS-SEM) method, which is included in the Smart-PLS 4 program, was used in this study to validate the model. This method was employed to analyze the data. One of the factors that led to PLS-selection SEM's over covariancebased structural equation modeling was that it is more appropriate for exploratory studies. The fact that PLS-SEM is simpler to understand than covariance-based structural equation modeling is another factor. Moreover, PLS-SEM is preferred to covariance-based structural equation modeling since it is simpler to comprehend. This study includes an exploratory analysis, which brings up the first point I want to make. Second, the PLS technique is superb for the analysis of data received from a small sample size because of the adaptability it offers. This is due to the adaptability of the approach.

Results

The distribution of the test population is shown in Table 1.

Table 1. Demographic prome of respondents					
Age	10-14	15-16	Total		
Male	150 (33.3%)	75 (16.7%)	225 (50.0%)		
Female	125 (27.8%)	100 (22.2%)	225 (50.0%)		
Total	275 (61.1%)	175 (38.9%)	450 (100%)		

Table 1. Demographic profile of respondents

Table 2 and Figure 2 demonstrate, respectively, the findings of the investigations conducted using the models that were applied in this research to identify the dependent relationships among all of the variables. The Cronbach alpha must be more than 0.70 to be considered satisfactory, which is where things need to begin going (Canet-Juric et al., 2021). All of the model variables included in this study have Cronbach's alpha values that are, on average, higher than 0.70. For instance, the values of the variables IV (Participation in folk sports), DVs (Academic performance of students, well-being of students, physical fitness of students), and mediators (Student engagement and student motivation) are 0.846, 0.820, 0.765, 0.925, 0.847, and 0.850 accordingly. These values are shown in Table 2. According to the provided Cronbach alpha criterion, these numbers are acceptable. As a result, all values are acknowledged. Furthermore, the ROH-All of the A values of the variables have been modified to align them with the threshold value. The third part of the inquiry looks at the average variance extract (AVE) and composite reliability (CR) of the model variables. The average variance extract and the acceptable values of the variables are both larger than 0.5, and the acceptable values of the variables for composite reliability are better than 0.7. Moreover, values greater than 0.5 are permitted for the variables. Table 2 displays the outcomes after looking at the outer loading of each variable. For different goods, a number greater than 0.6 is considered to be appropriate for estimating the proper outside loading (Figure 2). Every single item in the variables has a value greater than 0.6.

	Items	Outer Loading	Cronb ach's Alpha	roh	CR	AVE
	APOS1	0.746	0.812	0.848	0.859	0.509
	APOS2	0.817				
Academic Performance	APOS ₃	0.859				
or students	APOS4	0.590				
	APOS5	0.629				
	APOS6	0.592				
	PFOS1	0.698	0.759	0.784	0.845	0.579
Physical Fitness of	PFOS2	0.677				
Students	PFOS3	0.829				
	PFOS4	0.826				
	PFS1	0.880	0.830	0.833	0.887	0.664
Participation in Folk	PFS2	0.776				
Sport	PFS3	0.791				
	PFS4	0.808				
	SE1	0.833	0.932	0.936	0.948	0.786
	SE2	0.912				
Student Engagement	SE3	0.893				
	SE4	0.880				
	SE5	0.913				
Student Motivation	SM1	0.715	0.782	0.823	0.873	0.698
	SM2	0.878				
	SM3	0.900				
Wall haing of Students	WBS1	0.665	0.864	0.869	0.892	0.509
weil-being of Students	WBS2	0.701				

Table 2. Construct reliability and Validit

Well-being of Students	WBS3	0.778		
	WBS4	0.634		
	WBS5	0.686		
	WBS6	0.790		
	WBS7	0.715		
	WBS8	0.724		

The Fornell-Larcker criterion and the heterotrait-monotrait (HTMT) technique were employed to evaluate the discriminant validity of this study Hair, Sarstedt, & Ringle (2019). The validity of the discriminant function can be assessed using the Fornell-Larcker criterion by taking the square root of the average variance extract values for all model variables (Hair, Sarstedt, et al., 2019). The detailed analysis of the discriminant validity of each variable in Table 2 is based on the Fornell-Larcker criterion. The starting values of all variables inside each column show the highest values compared to their succeeding values in this table, demonstrating that the model's discriminant validity has been obtained (Sandra Marcelline et al., 2022).

Table 3. Discriminant validity (HTMT)						i
	APOS	PFOS	PFS	SE	SM	WBS
APOS						
PFOS	0.628					
PFS	0.527	0.547				
SE	0.344	0.152	0.486			
SM	0.832	0.644	0.453	0.610		
WBS	0.449	0.750	0.509	0.126	0.336	



Figure 2. Measurement Model

Direct Path Analysis

This study utilized a bootstrapping method with 5,000 different samples for the purpose of

performing statistical validation on the model hypotheses (Hair et al., 2016). The t and p values were analyzed in this study to determine whether or not the hypotheses should be accepted or rejected (Hair et al., 2016). The results of the H1 relationship, which predicted that Participation of folk sports has a significant and positive impact on the academic performance of students, are broken down and explained in Table 4 and Figure 2, which can be found here. Both the value of t and the value of p indicate that this hypothesis is accepted (t = 5.795, P = 0.0001). The results of the H₂ relationship, which predicted that Participation of folk sports has a significant and positive impact on the physical fitness of students, are broken down and explained in Table 4, which can be found here. Both the value of t and the value of p indicate that this hypothesis is accepted (t =8.292, P = 0.0001). The results of the H3 relationship, which predicted that Participation of folk sports has a significant and positive impact on well-being of students, are broken down and explained in Table 3, which can be found here. Both the value of t and the value of p indicate that this hypothesis is accepted (t = 9.967, P = 0.0001). The results of the H4 relationship, which predicted that Student engagement has a significant and positive impact on the academic performance of students, are broken down and explained in Table 4, which can be found here. Both the value of t and the value of p indicate that this hypothesis is accepted (t = 2.541, P = 0.006). The results of the H5 relationship, which predicted that Student engagement has a significant and positive impact on the physical fitness of students, are broken down and explained in Table 4, which can be found here. Both the value of t and the value of p indicate that this hypothesis is accepted (t = 4.472, P = 0.0001). The results of the H6 relationship, which predicted that Student engagement has a significant and positive impact on well-being of students, are broken down and explained in Table 4, which can be found here. Both the value of t and the value of p indicate that this hypothesis is accepted (t = 5.403, P = 0.0001). The results of the H7 relationship, which predicted Student motivation has a significant and positive impact on the academic performance of students, are broken down and explained in Table 4, which can be found here. Both the value of t and the value of p indicate that this hypothesis is accepted (t = 20.358, P = 0.0001). The results of the H8 relationship, which predicted that Student motivation has a significant and positive impact on physical fitness of students, are broken down and explained in Table 4, which can be found here. Both the value of t and the value of p indicate that this hypothesis is accepted (t = 11.925, P = 0.0001). The results of the H9 relationship, which predicted that Student motivation has a significant and positive impact on well-being of students, are broken down and explained in Table 4, which can be found here. Both the value of t and the value of p indicate that this hypothesis is accepted (t = 5.525, P = 0.0001).

Table 4. Direct effects					
Constructs	Path coefficient	t-statistics	p-values		
PFS -> APOS	0.216	5.795	0.0001		
PFS -> PFOS	0.385	8.292	0.0001		
PFS -> WBS	0.484	9.967	0.0001		
SE -> APOS	0.126	2.541	0.0061		
SE -> PFOS	0.406	4.472	0.0001		
SE -> WBS	0.333	5.403	0.0001		
SM -> APOS	0.706	20.358	0.0001		
SM -> PFOS	0.580	11.995	0.0001		
SM -> WBS	0.303	5.529	0.0001		

Table 4. Direct effects	
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Mediation Analysis

Within the context of the relationship between participation in folk sports and the academic performance of students, the purpose of this study was to investigate the mediating impact of student engagement and student motivation between participation in folk sports and the academic performance of students, participation in folk sports and physical fitness of students, participation in folk sports and well-being of students. The tenth hypothesis posited that student engagement mediates the relationship between folk sports participation and the academic performance of students. This hypothesis is supported by the findings, which show that student engagement mediates the relationship between folk sports participation and the academic performance of students (p=0.009). In a similar vein, The 11th hypothesis posited that student engagement mediates the relationship between folk sports participation and the physical fitness of students. This hypothesis is supported by the findings, which show that student engagement mediates the relationship between folk sports participation and the physical fitness of students (p=0.0001). The 12th hypothesis posited that student engagement mediates the relationship between folk sports participation and the relationship between folk sports participation and the relationship between folk sports participation and the physical fitness of students (p=0.0001). The 12th hypothesis posited that student engagement mediates the relationship between folk sports participation and well-being of students. This hypothesis is supported by the findings, which show that student engagement mediates the relationship between folk sports participation and well-being of students. This hypothesis is supported by the findings, which show that student engagement mediates the relationship between folk sports participation and well-being of students. This hypothesis is supported by the findings, which show that student engagement mediates the relationship between folk sports participation and well-being of students (p=0.0001).

The 13th hypothesis posited that student motivation mediates the relationship between folk sports participation and the academic performance of students. This hypothesis is supported by the findings, which show that Student motivation mediates the relationship between folk sports participation and the academic performance of students (p=0.0001). In a similar vein, The 14th hypothesis posited that Student motivation mediates the relationship between folk sports participation and the physical fitness of students. This hypothesis is supported by the findings, which show that student motivation mediates the relationship between folk sports participation and the physical fitness of students (p=0.0001). The 15th hypothesis posited that student motivation mediates the relation and well-being of students. This hypothesis is supported by the findings, which show that student motivation mediates the relationship between folk sports participation and well-being of students. This hypothesis is supported by the findings, which show that student motivation mediates the relationship between folk sports participation and well-being of students. This hypothesis is supported by the findings, which show that student motivation mediates the relationship between folk sports participation and well-being of students. This hypothesis is supported by the findings, which show that student motivation mediates the relationship between folk sports participation and well-being of students. This hypothesis is supported by the findings, which show that student motivation mediates the relationship between folk sports participation and well-being of students (p=0.0001). Table 5 shows the result of the mediation analysis.

*			
Constructs	Path coefficient	t-statistics	p-values
PFS -> SE -> APOS	0.055	2.371	0.009
PFS -> SE -> PFOS	0.176	4.062	0.0001
PFS -> SE -> WBS	0.144	4.609	0.0001
PFS -> SM -> APOS	0.261	8.619	0.0001
PFS -> SM -> PFOS	0.214	7.414	0.0001
PFS -> SM -> WBS	0.112	4.588	0.0001

Table 5. Mediation Analysis



Figure 3. Structural Model

Discussion

The first hypothesis is to look into whether or not students' academic performance is significantly and favorably impacted by their participation in folk sports. The benefits of sports engagement for people's physical and mental health have long been acknowledged. Folk sports, in particular, have a considerable and advantageous effect on pupils' academic achievement, according to recent studies. Taking part in traditional sports like archery and wrestling can improve academic achievement (Doe-Asinyo & Smits-Engelsman, 2021b). According to the study, students who participated in these traditional sports scored higher on academic tests than those who did not. This is explained by the fact that folk sports frequently call for attention, focus, and discipline, which can lead to better study habits and enhanced academic achievement (Bergua-Gómez, Gomez-Bruton, Casajús, & Montero-Marin, 2022). However, engaging in these activities can enhance cognitive skills like focus, memory, and judgment, all of which are crucial for academic achievement.

The second hypothesis looks into whether student engagement in traditional sports has a significant and advantageous effect on their level of physical fitness. Maintaining good physical health and fitness requires regular participation in sports. Folk sports participation as a way to encourage physical fitness among students has gained popularity in recent years. This conversation will look at how student engagement in traditional sports affects their physical fitness. According to a study by Mathur et al. (2022), student engagement in traditional sports had a significant and favorable effect on their physical health. The cardiovascular endurance, muscular strength, and flexibility of students who participated in folk sports were superior to those who did not. This finding lends credence to the claim that encouraging student physical fitness through involvement in traditional sports is a good strategy.

The third hypothesis looks into whether student well-being is significantly and favorably impacted by participation in folk sports. The benefits of sports involvement for physical and mental health are well known, but little research has been done on the effects of folk sports on student well-being. Folk sports, which are traditional games and pastimes frequently practiced in rural or indigenous communities, have been found in studies to significantly and favorably affect students' well-being (Rouquette, Knight, Lovett, & Heuzé, 2021b). With reference to recent studies, we will consider the ways that involvement in traditional sports might enhance student well-being. The formation of social ties and a sense of community is one of the key advantages of taking part in folk sports. Folk sport participation, according to studies, gives children the chance to interact with peers, coaches, and other community members, which boosts social support and a sense of belonging (Holton, 2022b). For students who might feel alone or distant from their friends, this sense of belonging can be very crucial and can support good mental health.

The fourth hypothesis is to investigate the student engagement has a significant and positive impact on the academic performance of students. Academic performance depends critically on student participation. It speaks to the degree of engagement and motivation students have for their academic goals as well as their level of interest and involvement in their learning activities. There is a lot of data to support the idea that student engagement affects academic achievement significantly and favorably. Students that were highly involved in their learning activities outperformed less engaged students academically (Rahman et al., 2021). The study also discovered that engagement predicted academic success more accurately than other variables like socioeconomic status and prior academic achievement.

The fifth hypothesis is to investigate the student engagement has a significant and positive impact on the physical fitness of students. The physical fitness of pupils has been proven to be significantly and favorably impacted by student participation. Students who were more physically active had better levels of fitness than those who were less active (Mejia, Valladares-Garrido, Almanza-Mio, & Benites-Gamboa, 2019). According to the study, physical activity was favorably connected with body composition, muscular fitness, and cardiorespiratory fitness. This association may be explained by the fact that motivated students are more likely to engage in physical activity, which can result in better fitness outcomes. In contrast to their peers who did not participate in organized sports, those who did so had higher levels of physical activity and fitness (Ghassemi et al., 2019).

The sixth hypothesis is to investigate the student engagement has a significant and positive impact on the well-being of the student. The well-being of students has been proven to be significantly and favorably impacted by student participation. Student engagement is "the level of attention, curiosity, interest, and enthusiasm that students display when they are learning or being taught," (Umeh, Bumpus, & Harris, 2020). This definition emphasizes how crucial emotional and mental commitment are to learning. Promoting a sense of meaning and purpose is one way that student engagement improves well-being. A study by Kahu et al. (2020) indicated that students who were engaged in their studies were more likely to report feeling a sense of purpose in their lives. Students who have a sense of purpose are more likely to be motivated and create personal objectives, which can result in higher happiness and satisfaction.

The seventh hypothesis is to investigate the student motivation has a significant and positive impact on the academic performance of students. Research has repeatedly proven that student motivation has a large and beneficial impact on academic performance, which is a crucial component of academic success (Khan, Chaudhry, Ahmad, Saif, & Mehmood, 2020; Xie et al., 2020b). The driving force that originates and maintains conduct in pursuit of a goal is referred to as motivation. Student motivation in the context of education refers to a student's willingness to participate in academic assignments and persevere in the face of difficulties. Students that are intrinsically driven are more likely to stick with their academic work even in the face of challenges because they are motivated by the inherent fun and satisfaction obtained from the activity itself (Bowling, Rice, Curry, & Marx, 2022). In contrast, students who lack motivation may find it difficult to set objectives and participate in class activities, which can result in subpar academic achievement.

The eighth hypothesis is to investigate the student motivation has a significant and positive impact on the physical fitness of students. Many research has looked at the connection between student motivation and physical fitness, and the majority of them have discovered that the two are positively related. In one study, Mandak, Light, and McNaughton (2019) discovered that students who were more intrinsically motivated to exercise were more likely to have higher levels of physical fitness than those who were less motivated. In a similar vein, Parr et al. (2021) research revealed that students with higher levels of motivation for physical activity had higher levels of cardiorespiratory fitness than students with lower levels of motivation.

The ninth hypothesis is to investigate the student motivation has a significant and positive impact on the well-being of the student. Student motivation has been identified as a key component of academic accomplishment and success. Also, several researches have discovered a strong connection between student motivation and well-being (Bentley, Patterson, Mitchell, & Backhouse, 2021b). We'll talk about how student motivation enhances the well-being of students in this conversation. First of all, motivated learners are more inclined to partake in academic pursuits that advance their well-being. Students who are driven to learn, for instance, are more likely to read, attend lectures, and take part in class discussions, all of which are associated with better levels of well-being (Edgar et al., 2019).

The tenth hypothesis is to investigate the student engagement mediates the relationship between participation in folk sports and the academic performance of students. For educators and policymakers, the mediating function of student engagement in the association between folk sport participation and academic achievement has significant ramifications. It implies that encouraging involvement in traditional sports can boost both academic attainment and physical health by encouraging student engagement. Moreover, encouraging student participation may be a useful tactic for raising academic achievement, especially among students who are at risk of failing their classes (Kotera et al., 2022).

The eleventh hypothesis is to investigate the student engagement mediates the relationship between participation in folk sports and the physical fitness of students. Several studies have been conducted recently on the link between involvement in traditional sports and physical fitness. An increasing body of data, however, points to student participation as a potential mediator of this link. It is crucial to define student engagement first. Student engagement is "the level of attention, curiosity, enthusiasm, and passion that students display when they are learning or being taught," Stephenson (2023). In other words, motivated learners who are engaged in the learning process are actively interested in it. The twelfth hypothesis is to investigate the student engagement mediates the relationship between participation of folk sports and well-being of the student. Traditional physical activities founded in a community's cultural traditions are known as "folk sports" (Bowden et al., 2019). These sports, which are frequently performed more for relaxation and fun than for competitive purposes, are significant components of the cultural history of many communities. Folk sports involvement has been linked in studies to some advantageous effects, such as enhanced physical health, social connectedness, and mental well-being (Chen, Lu, & Han, 2021; Jung et al., 2019).

The thirteenth hypothesis is to investigate the student motivation mediates the relationship between participation in folk sports and the academic performance of students. According to research, student motivation plays a critical role in mediating the link between involvement in athletics and academic achievement (Hava, 2021). Particularly, students who play sports typically exhibit higher levels of motivation, which improves academic achievement. There is evidence that playing folk sports can offer similar advantages, even though most of the research on sports participation and academic success has been on structured team sports. Folk sports are traditional games played by groups of people, frequently with an emphasis on cultural identity and heritage (Williams, Lugo, & Firth, 2022). It has been discovered that taking part in these sports is linked to greater physical activity and enhanced mental health (Ibrahim & Hassanain, 2022).

The fourteenth hypothesis is to investigate the student motivation mediating the relationship between participation in folk sports and the physical fitness of students. In the subject of sports and exercise science, there has been a great deal of research on the connection between physical fitness and engagement in physical activities. The effect of popular sports on physical fitness and the role that student motivation can play in mediating this relationship are two topics of study. A study by Peebles et al. (2023) indicated that participation in traditional Chinese folk sports was connected with higher cardiovascular endurance, muscular endurance, and flexibility.

The fifteenth hypothesis is to investigate the mediating role of student motivation in the relationship between participation in folk sports and well-being has been supported in several studies. According to Denault et al. (2022), student motivation completely moderated the association between engaging in traditional Chinese sports and academic success. Similar results were obtained by W. K. Lee and Joo (2020), who discovered that student motivation mediated the association between extracurricular athletic involvement and psychological well-being. However, a variety of elements, such as encouragement from teachers, peer pressure, and cultural background, affect a person's inclination to engage in folk sports. Instructors that actively encourage and support folk sports involvement can have a significant impact on student motivation and, as a result, their well-being. Peers can also affect motivation since students who play folk sports with encouraging peers are more likely to like it and be inspired to keep playing.

Conclusion

The study has given us important information about how taking part in folk sports affects rural school students' grades, health, and physical fitness. The research shows that the link between participation in folk sports and academic performance, well-being, and physical fitness is significantly mediated by student engagement and motivation. The study shows that taking part in folk sports can help rural school students do better in school and stay healthy. It can also improve their overall well-being. The study shows how important student motivation and engagement are for getting good results. Because of this, schools in rural areas should encourage and support their students' participation in folk sports as a way to improve their academic performance, well-being, and physical fitness. Also, it is suggested that more research be done to find out how student engagement and motivation affect the link between participation in folk sports and academic performance, well-being, and physical fitness.

Implication

Theoretical implications

The study on the impact of participation in folk sports on academic performance, well-being,

and physical fitness of rural school students with the mediating role of student engagement and student motivation has several theoretical implications. First of all, it emphasizes the value of extracurricular activities for kids' general development, including folk sports. This result lends credence to the idea that children who participate in extracurricular activities are more likely to perform better academically and be in generally better health than those who do not. Second, the study identifies how student motivation and engagement play mediating roles in the connections between folk sport participation and academic achievement, well-being, and physical health. This shows that motivation and involvement are key factors in maximizing the advantages of engaging in folk sports. As a result, educators and school administrators should promote and foster students' interest in and drive for extracurricular activities. Lastly, the study illuminates the potential advantages of folk sports, which are sometimes disregarded in professional sports. The results imply that participation in traditional sports can significantly improve academic achievement, mental health, and physical fitness in students. As a result, authorities and educators ought to think about encouraging and aiding the growth of folk sports in rural schools.

Practical implications

The study has several practical implications for educators, policymakers, and practitioners in the field of education. First of all, it emphasizes how important it is for schools to give pupils the chance to participate in extracurricular activities like folk sports. Schools should equip pupils with the necessary tools and space to engage in these activities. The report also recommends that educators and school administrators concentrate on encouraging students' interest and engagement in extracurricular activities. This can be done by creating a welcoming and inclusive environment, providing engaging and difficult tasks, and praising students for their accomplishments and contributions. Lastly, the study suggests that decision-makers take into account fostering and aiding the growth of folk sports in rural areas. This can be done by allocating money and resources for the construction of sports facilities, setting up training courses for trainers, and spreading knowledge about the advantages of folk sports among students, parents, and communities.

Limitations

The study may have limited generalizability due to its small sample size, which may not be representative of the wider population of rural school students. Only students who engaged in folk sports were included in the study, which may have resulted in the exclusion of students who might have been interested but did not participate for a variety of reasons. This may have resulted in selection bias influencing the study. Self-report measures were used in the study, which could have caused social desirability bias and resulted in an inaccurate representation of the participants' true levels of involvement, motivation, and well-being. The study's correlational methodology makes it difficult to prove a link between participation in traditional sports and improvements in academic standing, psychological health, and physical fitness.

Future Directions

In the future, the study should be repeated with larger sample sizes and more diverse populations to make the results more general. A mixed-methods design, which includes both qualitative and quantitative ways to collect data, can give a more complete picture of how playing folk sports affects students' academic performance, well-being, and physical fitness in rural schools. A longitudinal study design can help show that taking part in folk sports has an effect on academic performance, happiness, and physical fitness over time. In the future, researchers can come up with and test interventions that get and keep students interested and motivated in folk sports. This will help us figure out how participation improves academic performance, well-being, and physical fitness.

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