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TABLE OF CONTENTS

	Page
HEALTH	
The Roles of Parental Autonomy Support and Perceived Competence on Diet and Exercise Habits of Teenagers in Ijebu Northeast Local Government Area of Ogun State <i>Olanrewaju Ipinmoroti and Mary Faleke</i>	3-11
Recreational Activity Engagement and Subjective Well-being of Working-class Individuals in Selected Higher Institutions in Nigeria <i>Aderonmu Kehinde Adebayo</i>	11-20
PHYSICAL EDUCATION	
Adaptation Process of Junior High School Students in “Bukatsudo” Under the Transitional Strategy -Leadership Development in Extracurricular Activities Shifting from School to Community <i>Hiroshi Takagi, Koji Ishii and Naoki Suzuki</i>	20-28
The Influence of Psychological Capital on Subjective Well-being of Student-Athletes <i>Oluwatoyin M. Jaiyeoba, Jephthah O. Ogunsanya, Solomon B. Oguntuase and Abass A. Salaam</i>	28-39
SPORTS	
Establishment of Fitness Center as a Tool for the Achievement of Sport Science Entrepreneurship Among Nigerian Undergraduates <i>Olusegun Adewale Ajayi</i>	39-45
The Effects of TGfU and SET Pedagogical Models on Malaysian Primary Aborigines Students in a Coaching Context <i>Mohamad Nor Farihan Sulong, Zulakbal Abd Karim Sanmuga, Nathan K. Jeganathan, Abdul Rahaman Mohamed and Mohd Izwan Shahril</i>	45-58
Emotional Maturity among Rural and Urban Female College Athletes <i>Yogamaya Panda</i>	58-62
Enhancement of Performance of Players with “NLP” Visualization Mental Training <i>C. Veerender</i>	62-73
Impact of Female Sport Celebrities on Female Students’ Participation in Competitive Sports at a Nigerian University <i>Michael Gbemisola Aina, Ibraheem Musa Oluwatoyin, Abdulraheem Yinusa Owolabi</i> ..	73-80

The Roles of Parental Autonomy Support and Perceived Competence on Diet and Exercise Habits of Teenagers in Ijebu Northeast Local Government Area of Ogun state, Nigeria

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Abstract

Physical inactivity is gradually becoming a pandemic. This is due, in part, to technological advancement that has made what typically were once done manually to be done by machines nowadays. Obesity, which was predominant among adults, a few decades ago, is being diagnosed among both youths and children. This could be largely traced to inactivity and poor diet habits. The current study, therefore, investigated the roles of parental autonomy and perceived competence on diet and exercise habit of teenagers in Ijebu East Local Government Area Government Area of Ogun state, Nigeria. Two hundred and fifty (250) teenagers from those who volunteered to participate in the study were randomly selected from five senior secondary schools in the study area. Four null hypotheses were tested. Data was collected using structured questionnaires. Data were analyzed using descriptive statistics of frequency counts and percentages and Chi – Square. The findings revealed that Perceived competence significantly influenced diet and exercise habits of teenagers. Although parental autonomy support was found to influence the exercise habit of teenagers, it was not statistically significant in influencing diet habit. From the findings of this study, it could be concluded that parental autonomy support has significant influence on teenagers’ exercise habits. Perceived competence also has significant influence on both diet habit and exercise habit of teenagers in Ijebu east Local Government Area of Ogun state, Nigeria.

Keywords: controlling parents, autonomy supportive parents, self - efficacy, diet habit, exercise habit, teenagers

Introduction

Statement of the Problem

It has been postulated that adolescents’ inactivity or negative experiences with physical activities track into adulthood and greatly increase the probability of them becoming physically inactive adults (Taylor et al., 1999, Trudeau, 2000). Obesity, which was predominant among adults, a few decades ago, is being diagnosed among both youths and children. This could be largely traced to inactivity and poor diet habit. Sedentary activities have been reported to increase the risk of being overweight by 13% and that of development of abdominal fat by 26%. It has also been reported that for every seat of an hour, the mortality rate increases by 2% and can reach up to 8% per hour when the total consecutive time seated is above 8 hours per day (Byun et al., 2012; Roseberg et al, 2015). These findings underscore the need for adolescents to be actively involved in physical activities to enhance their well-being.

Brief Literature Review

Adolescence is a period between childhood and adulthood. This period is characterized by rapid physical and physiological changes and is also critical for habits formation and acknowledged as a dynamic and critical stage of human development in which individuals rapidly develop capacities for independence, seek to become more autonomous from their parents, and make decisions that can frame their developmental pathways or trajectories (Ryan,

et al, 2006; Shlafer, et al, 2014). According to WHO (2004), Over the past 50 years, there has been a huge shift from a lifestyle that was physically active to the one that is predominantly sedentary. This is due, in part, to technological advancement that has made what typically were once done manually to be done by machines nowadays. Studies has shown that young people in many countries, Nigeria inclusive, are engaged in low levels of physical activities (Dishman, 1994; Ipinmoroti, 2004; Wang et al., 2011). Also, another research reported that percentage of Malaysian adolescents were found to be low to moderate levels of physical activity. Younger adolescents were however, found to have a significantly higher level of physical activity than the older adolescents (Seah & Hashim, 2014).

There are many parenting styles enunciated in literature, but the consensus is that authoritative parenting style is the most popular. Authoritative parenting is characterized by parental control. This refers to parental supervision, and maturity demands. The pressure that parents experience makes it easier for them to exhibit controlling behavior because autonomy support requires time and psychological availability. Parents' perceptions of external threat in their children's environment are often exhibited in the form of fears/worries about the future, limited resources, and uncertainty often encourage controlling behavior. Other factors that can encourage controlling behavior are children's behavior, and ego - involvement of parents. When a person is involved in a task, his/her feelings about him/herself depends on the good performance of that task (Ryan, 1982).

Grolnic, Garlands, DeCoursey, and Jacob (2002) reported that when mothers became ego - involved in the performance of their child, they tended to be more controlling. On the other hand, parental autonomy support involves empowering the child to author his/her actions and to own the outcomes. Such parents allow choices, respect the child's interests, encourage self-advocacy, supports volitional activities, gives reasons for expectations, and takes the child's viewpoint into consideration. Involvement and structures dimension are interactive with autonomy support. While the involvement and structure dimensions describe what parents do, autonomy support dimension describes how to do it. Autonomy support is correlated with higher self - esteem, greater self- regulation and more advanced executive function, better social outcomes, and greater academic achievement. A child that enjoys high parental autonomy support will develop intrinsic motivation, and inner drive which is reflective of the true self that guides behavior. Joussemet, Landry, and Koestner (2008), opined that autonomy support has four main ingredients - providing rationale and explanation for behavioral requests, recognizing the feelings and perspectives of the child, offering choices and encouraging initiatives, and minimizing the use of controlling techniques.

It is important to note that parental autonomy support can be exhibited in practical terms such as valuing autonomy rather than emphasizing obedience, using autonomy - oriented techniques (like reasoning) than using rewards and punishment; and allowing choices rather than imposing parent's agenda (Joussemet et al., 2008). While supportive parenting enhances well – being through psychological needs satisfaction, (Chen et al., 2015) thwarting parenting influences ill – being through psychological frustrations (Abidin et al., 2022). Parental control has been seen as negatively predicting moderate to vigorous physical activity while parental support is positively associated with adolescents' moderate to vigorous physical activity. Tangible support, encouragement, and transportation has been positively linked to physical activity (Doggui et al., 2021). In a recent study, parental autonomy support was found to positively influence exercise adherence in adolescents (Feng et al., 2024). Parental influence plays a significant role in shaping the diet habits of adolescents. Parents can also influence diet habits during both shared and independent eating occasions. These practices can influence food availability, normative belief and expectations for intake (Reicks et al., 2015).

Another component of self-determination theory is competence. This has to do with self-perception that someone can accomplish a task and be successful in meeting goals. Such perception could be in terms of issues related to healthy eating and regular engagement in exercise. This is closely related to the concept of self-efficacy based on social learning theory. In simple terms, perceived competence refers to one's confidence in the ability to carry out a behavior even when faced with challenges (Mokhtar et al., 2017).

Researchers have found that higher levels of perceived competence in physical activities were associated with increased participation in exercise among adolescents (Zhu, Sun & Chen, 2023). Barkley, Lepp, Skinner, and Petosa, (2018), opined that perceived competence emerged as a significant predictor of sustained exercise engagement among adolescents, highlighting its importance in promoting long-term adherence to healthy exercise habits.

Adolescents with a strong belief in their ability to make healthy choices (high perceived competence) tend to gravitate towards healthier options. A study by Romero -Ramos, Zurita -Ortega, Gonzalez - Valero, and Muros (2023), found a positive association between perceived competence and healthy dietary consumption. This suggests that adolescents who feel confident in navigating food choices are more likely to incorporate fruits, vegetables, and whole grains into their diets. They might be better at resisting unhealthy temptations and planning nutritious meals. Adolescents who believe they can make healthy food choices are more likely to select nutritious foods over unhealthy options, resist peer pressure to consume unhealthy snacks or fast foods, and maintain consistent eating patterns (Mokhtar et al., 2017).

Significance of the Study

Teenage years are significant period for habit formation especially diet and exercise habits. Considering the important roles parents play in shaping teenagers' development, it goes without saying, that knowledge of parental autonomy support is vital in efforts to assist these teenagers in forming healthy diet and exercise habits. The outcome of this study may sensitize parents to the need to be less controlling and more autonomy supportive in their efforts to shape teenagers' habit formation. The results of this study may also arouse the consciousness of teenagers to the relationship between self-efficacy, self – confidence. And healthy habit formation. Counsellors and psychologists may find the outcome of this study useful in their dealings with parents and teenagers.

Purpose of the Study

The purpose of this study was to investigate the roles of parental autonomy support and perceived competence in adolescents' diet and exercise habits. The following hypotheses were tested:

1. Parental autonomy support will not significantly influence the diet habits of teenagers.
2. Parental autonomy support will not significantly influence the exercise habits of teenagers.
3. Perceived competence will not significantly influence the diet habit of teenagers.
4. Perceived competence will not significantly influence the diet habit of teenagers.

Methods

Research Design and Measures

The descriptive survey research design was adopted for this study since the purpose of the study was to gather information through self – report from parents and teenagers.

Participants

Two hundred and fifty (250) teenagers (50% males and 50% females) were randomly selected among volunteers from public schools in Ijebu East Local Government area of Ogun state, Nigeria. Participants were in the first and second year in the Senior Secondary schools.

Data Collection

A self-developed validated questionnaire was used for collecting data for the study. It has five sections – section A focused on the demographic information of participants while sections B, C, D, E contained questions relating to the formulated hypotheses (parental autonomy support and diet habit, parental autonomy support and exercise habit, perceived competence and diet habit, and perceived competence and exercise habit respectively). The response format was a modified Likert scale of Strongly Agree, Agree, Strongly Disagree, and Disagree. The reliability coefficient (Cronbach alpha) was 0.98. The researchers sought for the permission of the school Principals. Thereafter, participants were briefed about the purpose of the study. Those who volunteered to participate in the study were then given both the informed consent forms and the questionnaire forms. They were told that participation was not compulsory, and they can withdraw their participation anytime if they do not wish to continue.

Data Analyses

The collated data were analyzed using SPSS version 21. The demographic information was analyzed using descriptive statistics of frequency counts and percentages while the hypotheses were tested using Chi – Square.

Results

The results are as presented in the tables below.

Demographic Information

Table 1: *Gender Distribution of participants*

Gender	Respondents	Percentage
Male	125	50%
Female	125	50%
Total	250	100%

Parental Autonomy on Diet Habit of Teenagers

Table 2: *Mean values and expected frequencies*

Table 2a: *Parental Autonomy Support – Diet (PASD)*

	Observed N	Expected N	Residual
AGREE	140	125.0	15.0
DISAGREE	110	125.0	-15.0
Total	250		

Table 2b: *Chi – Square value*

	PASD
Chi-Square	3.600 ^a
Df	1
Asymp. Sig.	.058

From table 2, the P value of 0.58 indicates that parental autonomy support did not significantly influence teenagers' diet habit. Hypothesis one which states that parental autonomy support will not significantly influence diet habits of teenagers was therefore accepted.

Parental Autonomy Support on Exercise Habit

Table 3: Mean values and expected frequencies

Table 3a: Parental Autonomy Support – Exercise (PASEX)

	Observed N	Expected N	Residual
AGREE	147	125.0	22.0
DISAGREE	103	125.0	-22.0
Total	250		

Table 3b: Chi – Square value

	PASEX
Chi-Square	7.744 ^a
Df	1
Asymp. Sig.	.005

From table 3, the P value was 0.005. This shows that parental autonomy support significantly influenced teenagers' Exercise Habit. The null hypothesis which states that Parental autonomy support will not significantly influence exercise habits of teenagers was therefore rejected.

Perceived Competence on Diet Habit

Table 4: Mean values and expected frequencies

Table 4a: Perceived Competence – Diet (PCDIET)

	Observed N	Expected N	Residual
AGREE	155	125.0	30.0
DISAGREE	95	125.0	-30.0
Total	250		

Table 4b: Chi – Square value

	PCDIET
Chi-Square	14.400 ^a
Df	1

Asymp. Sig.	.000
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From table 4 the chi – square value is 14. 400 while the P value is 0.000. This shows that perceived competence on the part of the adolescents significantly influenced their diet habits. The null hypothesis which states that Perceived competence will not significantly influence the diet habit of teenagers was therefore rejected.

Perceived Competence in Exercise Habit

Table 5: *Mean values and expected frequencies*

Table 5a: *Mean values and expected frequencies*

	Observed N	Expected N	Residual
AGREE	157	125.0	32.0
DISAGREE	93	125.0	-32.0
Total	250		

Table 5b: *Chi – Square value*

	PCEXERCISE
Chi-Square	16.384 ^a
Df	1
Asymp. Sig.	.000

Chi – square value of 16.384 and P value of 0.000 indicates a significant influence of perceived competence on exercise habit of teenagers. The null hypothesis which states that Perceived competence will not significantly influence diet habits of adolescents was therefore rejected.

Discussion

The current study shows that parental autonomy support did not significantly influence diet habits of teenagers in Ijebu East Local Government Area of Ogun state, Nigeria. This finding is consonance with that of Dimitratos, Swartz and Laugero (2022) who reported that although parental autonomy support may not directly predict older adolescents’ motivation for diet and exercise, it has great influence on their self – determination. In other words, parents who support their teenagers to be self – determined indirectly contribute to the ability of the adolescents to make right choices on dietary intakes. Such teenagers would be able to resist undue peer pressure when it comes to choices of what to eat. According to Joussemet, Landry, and Koestner (2008) parental autonomy support can be exhibited in practical terms such as valuing autonomy rather than emphasizing obedience, using autonomy - oriented techniques (like reasoning) than using rewards and punishment; and allowing choices rather than imposing parent’s agenda. A teenager who enjoys such autonomy support will find it easier to make healthy food choices.

This study also found that parental autonomy support significantly influenced teenagers’ Exercise Habit (Table 3 a. & b.). Earlier studies have shown that Parental autonomy support can enrich the emotional elements of an adolescent’s experience (Tang et al., 2013), which can improve the teenager’s exercise habits and enhance their experience and feelings of happiness during exercise (Zhu & Yin, 2022; Deci & Ryan, 2008). Also, parents’ support for

their children's independent exercise can enrich an adolescent's exercise cognition and encourage them to be more inclined to participate in exercise.

Table 4 reveals that perceived competence on the part of teenagers significantly influenced their diet habit. The null hypothesis which states that Perceived competence will not significantly influence diet habits of adolescents was therefore rejected. As earlier stated, teenagers with a strong belief in their ability to make healthy choices (high perceived competence) tend to gravitate towards healthier options. This corroborates a study by Romero-Ramos, Zurita - Ortega, Gonzalez - Valero, and Muros (2023), which found a positive association between perceived competence and healthy dietary consumption. This suggests that adolescents who feel confident in navigating food choices are more likely to incorporate fruits, vegetables, and whole grains into their diets. They might be better at resisting unhealthy temptations and planning nutritious meals. Teenagers who believe they can make healthy food choices are more likely to select nutritious foods over unhealthy options, resist peer pressure to consume unhealthy snacks or fast foods, and maintain consistent eating patterns (Mokhtar et al., 2017).

In Table 5, Chi – square value of 16.384 and P value of 0.000 indicates a significant influence of perceived competence on exercise habit of teenagers. The null hypothesis which states that Perceived competence will not significantly influence the diet habit of teenagers was therefore rejected. In other words, perceived competence significantly influences adolescents' exercise habit. The current study supports earlier studies which reported that perceived competence emerged as a significant predictor of sustained exercise engagement among adolescents. This highlights its importance in promoting long-term adherence to healthy exercise habits (Barkley, Lepp, Skinner, and Petosa, 2018).

Conclusion

From the findings of this study, it could be concluded that parental autonomy support has significant influence on teenagers' exercise habits. Perceived competence also has significant influence on both diet habit and exercise habit of teenagers in Ijebu east Local Government Area of Ogun state, Nigeria. Parents are advised to be intentional in the upbringing of their children, especially during the teenage years when habit formation is critical. Parents should adopt an autonomy supportive approach rather than a controlling approach in the upbringing of their children. This will help their teenage children to be motivated to become self – determined which eventually will help them in forming healthy diet and exercise habits. Rather than succumbing to peer pressure, teenagers can develop self – confidence in their ability to make right choices in terms of food choice and participation in physical activity. These findings are limited to Ijebu east Local Government Area of Ogun state, Nigeria. As a result, the outcome cannot be generalized to all teenagers.

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Conflict of Interest

There is no conflict of interest.

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Recreational Activity Engagement and Subjective Well-Being of Working-Class Individuals in Selected Higher Institutions in Osun State, Nigeria

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Abstract

The purpose of the study was to examine the relationship between recreational activity engagement and the happiness status of working class and individuals in higher institutions in Osun State, Nigeria. The study adopted the descriptive survey research design. The population were academic and non-academic workers of 13 tertiary institutions in Osun State. 6 tertiary

institutions were selected using simple random sampling techniques. The sample size comprised 300 respondents. From the selected institutions 50 workers (25 academic, 25 non-academic) were selected using stratified random sampling technique. Two research instruments were used to collect data for the study, namely, The Fordbyce Emotion Questionnaire (FEQ) to measure the happiness status of the workers and the Physical Activity Questionnaire (PAQ) to gather data on the level of engagement of respondents in recreational activity. Data collected were analyzed using frequency percentage count and. chi square. Results indicated that there was significant relationship between active participation in leisure-time activity and the happiness status of academic staff ($\chi^2 = 18.56$, $p = 0.00$) and non-academic staff ($\chi^2 = 15.76$, $p = 0.03$) of tertiary institutions in Osun State, Nigeria. The study concluded that involvement in recreational activity enhanced the happiness status of workers in higher institutions in general. *Keywords:* leisure time, recreational activity, academic, non-academic, subjective wellbeing, higher institutions

Introduction

In recent years, there seem to be an increased preoccupation for well-being in academic contexts. It could also be noted that, for the specialist, and hopefully for the policy makers, school experience does not only mean a learning process but also a life experience. Leisure reflects choice of every individual to spend his/her unrestricted time fulfilling certain interest or needs or performing a gratifying experience for the sake of wellness or personal development (Alli, 2007; Barcelona, 2002). Leisure with its usefulness is linked virtually to every aspect of life and the development of the socio-economic, culture and value system, social behavior, the intellectual and spiritual dimension of life and how people relate with each other and nature (Strong, 2009). Acknowledging that participation in physical leisure activities affects quality of life and life satisfaction meaning that comprehensive work-based physical leisure activity programme can yield promising health behavior changes of employees (Jennen & Uhlenback, 2004), this implies that leisure could be regarded as one factor that is essential for the influence of and wellbeing among the academic and non-academic workers of tertiary institutions.

The benefits of leisure-time activities to workers in tertiary institutions are numerous and countless. It could contribute to positive health, which is not merely the absence of diseases but associated with the capacity to enhance life satisfaction and ability to improve individual's capability to withstand stress. Leisure is therapeutic as it provides mental health benefits when people have opportunities to experience social support, friendships and social acceptance, a sense of competence and self-efficacy from their leisure participation. It could also be seen as being self-determined and being in control in one's leisure, feeling relaxed and disengaged from stress; and a sense of continuity or normalcy in the face of life changes associated with illness, loss) or disability (Caldwell, 2005). The involvement in both leisure time often leads to interaction with other people in places like gyms, fitness classes, places of work and religious places (Argyle, 2002). More so, participation in leisure activity affects quality of life and life satisfaction (Jennen & Uhleback, 2004). Therefore, participating in leisure time activities helps to improve mood states, both the short term and long term, and consequently influences the increase in subjective wellbeing.

Subjective well-being (SWB) can be defined as a multi-dimensional, phenomenological expression by the individual of the quality of his or her state of existence (Troiano et al., 2008).

It generally consists of one's overall life satisfaction, general tendency to experience positive affect, and a global sense of happiness (Diener et al., 2003). To this effect, people that possess a high level of satisfaction with their lives and experience a greater positive effect and little or less negative effect, would be deemed to have a high level of SWB (Argyle, 2002). The subjective wellbeing of workers seems to be a growing area of concern in some tertiary institutions, especially in Osun State in which workers still holds erroneous belief that participation in recreational sport could aggravate health problems rather than alleviate it (Adisa & Oloyede, 2011). Sequel to this, relating leisure time activity participation with subjective wellbeing among academic and non-academic workers of tertiary institutions is the major concern of this study. Thus, the study is being carried out to help intimate workers (both academic and non-academic) that participation in leisure activity helps in the improvement of their good psychological and physical health outcomes, which is eventually likely to enhance their longevity, efficiency, effectiveness and productivity at work.

Statement of the Problem

It is clearly noticed at every working place especially in tertiary institutions that mechanization and computerization have taken over the usual working practices, therefore leading to increased workplace physical inactivity (Sallis, 2011). The reason for this could be due to the availability of cars which has taken the place of walking, elevators which have taken over from stairs, while washing machines have replaced manual laundry, mobile communication and various remote controls have reduced the pattern of movement of people from one place to another (Talabi et al., 2010). These technological advancements have placed individuals in a state of inactivity and sedentary lifestyle which resulted in a decrease in subjective wellbeing.

On the other hand, academic and non-academic workers of tertiary institutions in Osun State of Nigeria are likely not to have shown demonstrable interest in leisure time activity participation, despite the benefits and availability of some leisure time or physical exercise facilities in their institutions, home, environments and even at their doorstep. This observation could be further explained that, creating time for recreation activity by tertiary institution workers is difficult, due to the work demand, while the non-academic workers may close at these designated hours, the counterparts may not leave their offices until later in the day or may even busy working on the field, thereby, making it almost impossible to pursue any form of physical activity. Weekends that should be devoted to rest often time are used for family, friends, and colleagues' social engagement and religion activities. Overall, these grossly affects the number of times the workers of tertiary institutions engagement in physical activities.

Studies on the leisure time activity participation and the Subjective wellbeing of academic and non-academic workers of tertiary institution in Nigeria are scanty, since most of the available studies are carried out in foreign countries. Also, to the best of the researcher's knowledge, limited number of such studies has been carried out in Osun State. Hence, this study.

Objective

To examine the relationship between leisure time activity and subjective wellbeing of workers in the tertiary institution in Osun State.

Hypothesis

There is no significant relationship between leisure time activity participation level and the subjective wellbeing level of workers in tertiary institution in Osun state.

Methodology

The study adopted descriptive survey research design. The population comprised all academic and non-academic workers of tertiary institutions in Osun State. The sample for the study comprised 300 workers, selected using the multistage sampling -procedure. At the first stage, six out of the 13 tertiary institutions in Osun state were selected, using simple random sampling technique, from each selected institution, fifty workers (25 academics and 25 non-academics) were selected using stratified random sampling technique, totaling 300 workers. Two research instruments were used to collect data for the study, namely: Fordbyce Emotion Questionnaire (FEQ) designed to elicit information on the happiness status of respondents and Physical Activity Questionnaire (PAQ) designed to collect information on the leisure time activity participation level of academic and non-academic staff. Data collected was analyzed using frequency count and percentages, mean and standard deviation.

Results

Table 1

Descriptive Statistics of respondents' (Academic Workers) scores on leisure time activity participation

Descriptive Statistics	
Number of Respondents	145
Mean Score	62.17
Standard Deviation	7.74
Minimum Score	20
Maximum Score	80

General leisure time activity participation levels

Responses	Frequency	Percent
Low	30	20.7
Moderate	83	57.2
High	32	22.1
Total	145	100

As shown in Table 1 the minimum and maximum scores of respondents on leisure time activity participation are 20 and 80 respectively. Also, to determine the levels of leisure time activity participation among the respondents, scores of respondents were categorized into three levels (low, moderate and high) of leisure time activity participation. To categorize the scores of the variables, the minimum and maximum score on sexting were 20 and 80 with mean and standard deviation ($\bar{X}$ = 62.17 & SD = 7.74). It was observed from the table, that 30 (20.7%) of the 145 respondents demonstrated low level of leisure time activity participation; 83 (57.2%) of 145 demonstrated moderate level of leisure time activity participation while 32 (22.1%) of them demonstrated high level of leisure time activity participation. From this result, it was

found out that the level of leisure time activity participation by the academic staff was moderate.

Table 1.2

Descriptive Statistics of respondents' (Academic Workers) scores on Subjective Wellbeing

Descriptive Statistics		
Number of Respondents	145	
Mean Score	7.96	
Standard Deviation	0.69	
Minimum Score	0	
Maximum Score	10	
General Subjective Wellbeing levels of Academic workers		
Responses	Frequency	Percent
Low	35	24.1
Moderate	110	75.9
High	00	0.0
Total	145	100

It was observed from the Table 4.5, that 35 (24.1%) of the 145 demonstrated low level of subjective wellbeing; 110 (75.9%) of 145 demonstrated moderate level of subjective wellbeing while none of them (0%) of them indicated high level of subjective wellbeing. From this result, it was found out that the level of subjective wellbeing of the academic staff was moderate. Also, the average time they were happy was 65.41 %; while that of being unhappy and neutral were 18.01 % and 16.57% respectively.

Table 1.3

Descriptive Statistics of respondents' (Non-Academic Workers) scores on leisure time activity participation

Descriptive Statistics		
Number of Respondents		147
Mean Score		57.03
Standard Deviation		6.50
Minimum Score		20
Maximum Score		80
General leisure time activity participation levels		
Responses	Frequency	Percent
Low	22	15.0
Moderate	117	79.6
High	08	5.4
Total	147	100

As shown in Table 1.3, it could be seen that, the minimum and maximum scores of respondents (non-academic staff) on leisure time activity participation are 20 and 80 respectively. More so, to determine the levels of leisure time activity participation among the respondents, scores of respondents were categorized into three levels (low, moderate and high) of leisure time activity participation. To categorize the scores of the variables, the minimum and maximum score on sexting were 20 and 80 with mean and standard deviation ($\bar{X} = 57.03$

& SD = 6.50). It was observed from the table, that 22 (15.0%) of the 147 respondents indicated low level of leisure time activity participation; 117 (79.6%) of 147 indicated moderate level of leisure time activity participation while 08 (5.4%) of them indicated high level of leisure time activity participation. From this result, it was found out that the level of leisure time activity participation by the non-academic staff was also moderate.

Table 1.4.

Descriptive Statistics of respondents' (Non-Academic Workers) scores on Subjective Wellbeing

Descriptive Statistics		
Number of Respondents		147
Mean Score		7.12
Standard Deviation		1.66
Minimum Score		0
Maximum Score		10
General Subjective Wellbeing levels of Academic workers		
Responses	Frequency	Percent
Low	54	36.7
Moderate	82	55.8
High	11	7.5
Total	147	100

It was observed from the Table 1.4, that 54 (36.7%) of the 147 demonstrated low level of subjective wellbeing; 82 (55.8%) of 147 demonstrated moderate level of subjective wellbeing while 11(7.5%) of them demonstrated high level of subjective wellbeing. From this result, it was found out that the level of subjective wellbeing of the non-academic staff was also moderate. It was also revealed that, the average time the non-academic staff were happy was 56.80%; while that of being unhappy and neutral were 26.90% and 17.04% respectively. Therefore, the subjective wellbeing level of workers was moderate on the average with a mean a mean ($\bar{X}$ =7.54) and standard deviation (σ = 1.18). 7.54) and standard deviation (σ = 1.18).

Table 1.5

Relationship between subjective wellbeing and leisure time activity participation of non-academic staff

		Subjective Wellbeing Level			Total	X ²	df	P
		High	Low	Moderate				
Leisure Time	High	0	0	8	8	15.76	4	0.03
Activity Level	Low	0	4	18	22			
	Moderate	11	50	56	117			
Total		11	54	820	147			

Table 1.5 showed the relationship between the subjective wellbeing level and leisure time activity participation level of non-academic staff. It can be observed that a Chi-square test indicated a significant relationship between the levels of subjective wellbeing and leisure time activity participation of non-academic staff, (n = 147, χ^2 =15.76, df= 4, P = .03). Since the p-value is less than .05 thresholds, therefore, the stated null hypothesis was rejected. This result concluded that there is a significant relationship between the subjective wellbeing and leisure time activity participation of non-academic workers.

Discussion of Findings

The primary aim of this study was to determine the level of subjective wellbeing among the academic and non-academic workers of the tertiary institution in Osun state and its relationship with their leisure time activity participation level. Based on the first finding of the study, there was an indication that the levels of leisure time activities demonstrated by both the academic and non-academic workers of the tertiary institutions in Osun state were moderate. This result is in line with the study of the researchers at the Centers for Disease Control analyzed data from the BRFSS (CDC, 2017), which indicated that nationwide, most of the academy and non-academic workers met the recommendation of 30 minutes or more of moderate activity on 5 or more days a week; but in contrary with the studies of Ikhioya and Sosanya (2002), who discovered that most employees of tertiary institutions in Nigeria apart from those in Physical and Health Education Department and Sports Councils do not participate actively in leisure time physical activity.

It was also found out in the study that, the academic staff of the institutions identified reading (magazines and newspapers), followed by relaxing and going to the bookstore as their most leisure time activities.

Another finding of this study indicated that the level of subjective wellbeing of both the academic and non-academic staff was also moderate. This finding is in contrast with the finding of Schimmack, Oishi, & Diener (2002) who found out that, Japanese American students reported low level of subjective well-being. The results of this study seem to provide insight into the predictors of life satisfaction and happiness among the workers (both academic and non-academic); since it was also indicated that the average time the workers were happy was also moderate, being above average in percentage. This could also suggest that moderate subjective well-being perception by these workers may help and lead them to enhance satisfaction level with life. Based on these results, one could conclude that, subjective well-being is an important issue in satisfaction and happiness-related fields. More so, it is not surprising at all, to find that happiness is associated with levels of subjective well-being. The reason for this is that happiness in life is a critical element in this stress-filled world, especially in tertiary institutions; to the extent that most of these workers really want this element in their lives, in hopes of improving their life satisfaction and subjective well-being.

Moreover, this study found out that there was a weak and negative relationship between the leisure time activity participation of the academic and that of the non-academic staff of tertiary institution in Osun state. This implies a significant difference between the leisure time activity participation of the academic and non-academic staff of tertiary institution which was also stated in the hypotheses tested. It was further found out that, academic staff leisure time activity scores were higher than non-academic workers leisure time activity scores. This means that academic workers in these tertiary institutions engage more in leisure time activities than the non-academic workers in the study area. Being academic workers versus non-academic workers was associated with reporting moderate level of leisure activity engagements; however, while comparing their scores, academic workers engaged in more leisure activities than the non-academic workers.

These findings replicate previous study of Choi and his associates (2010), which stated that, those who had high job discretion engaged more frequently in sports activities during their leisure time, than those who had a low job discretion who engaged themselves more frequently in sedentary activities at home (for example, TV watching) during their leisure time; and those

who had low strain jobs (a combination of low control and high demands) would have intermediate levels of the leisure activities or sports activities during leisure time.

Finally, from the result of another analysis in this study, it showed that there was no significant relationship between the subjective wellbeing and leisure time activity participation of the academic workers, while there was a significant relationship between the subjective wellbeing and leisure time activity participation of the non-academic workers. This result is consistent with the results of Paggi, Jopp and Hertzog (2016); Lin and Chen (2014); Hills et al. (2000); that also identified a positive correlation between participation in leisure activities and subjective well-being; for young adults, over stressed workers and in the later life. From this result, it could be noted that, workers who engaged in moderate enjoyable leisure activities possessed moderate subjective wellbeing, with moderate level of happiness. Thus, the moderate occurrence of enjoyable leisure activities among the academic and non-academic workers could have amounted to play some roles in accounting for their moderate levels of subjective wellbeing as well as happiness. The results of this study therefore suggest that, the individuals satisfied with leisure activities is significantly happier than the people with no leisure activity at all, who may probably be in worse conditions. More so, it further provides support for leisure time activities as being antecedent variable for subjective wellbeing; and to this effect, it may be agreed that these activities could play a key role in mediating the relationship between physical health and subjective well-being, particularly among workers in tertiary institutions

The differences in the leisure time activity and subjective wellbeing scores between the academic and non-academic workers could be due to: disparities in the access to health-promoting activities; the nature and description of the jobs done by each of the categories; insufficient leisure venues, poor infrastructure, financial time and structural constraints. Furthermore, the activity assessments and the schools may not have adequately captured the types of activities the non-academic workers would like to participate in. Therefore, it will be of help and very important if strategic intervention programmes geared toward improving participation in leisure time activities and subjective wellbeing among the workers in the academic environment could be developed. As this will go a long way in encouraging both the non-academic and academic workers to participate more in leisure time activities, thus improving their subjective wellbeing.

Conclusion

The study also revealed that there was a significant relationship between the leisure time activities and subjective wellbeing of the academic and non-academic workers in Osun state tertiary institutions.

Recommendations

Following the conclusion of the study, the following recommendations are made:

1. Workers in tertiary institutions should be encouraged to engage in leisure activities throughout their lives to maintain and even improve their well-being.
2. The finding of this study also recommends the need of health promotion programmes such as exercise and stress management, to increase workers' subjective wellbeing, productivity, and decrease health care costs.
3. Greater availability of school facilities for out-of-hours use by workers should be provided.

4. Perception of workers towards the benefits of exercise should be intensified in every workshop, clinic, seminar and the likes to maintain the status quo.

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Adaptation Process of Junior High School Students in “Bukatsudo” Under the Transitional Strategy -Leadership Development in Extracurricular Activities Shifting from School to Community

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Abstract

This study examines the adaptation process and leadership development of second-year junior high school students in "Bukatsudo" (extracurricular club activities) as they experience the transitional strategy from school-based to community-based programs. Semi-structured interviews were conducted with 14 second-year students holding leadership roles in baseball clubs undergoing this transition. Data was analyzed using the Modified Grounded Theory Approach (M-GTA). Results revealed that students' perceptions evolved through recognizing new relationships, adapting to changes, and modifying their approach to club activities. The transition fostered leadership skills and autonomous decision-making abilities, particularly as students adapted to changes in practice environments and diverse coaching methods. It also promoted mutual understanding among stakeholders, creating a collaborative learning network. A cyclical model emerged, where community network formation led to further changes in social relationships, creating a virtuous cycle of adaptation and community development. These findings provide insights into effective implementation of the community transition policy for athletic clubs and the development of community-based support for students' growth, contributing to our understanding of how educational policies can foster student leadership and community engagement in extracurricular activities.

Keywords: extracurricular club activity "Bukatsudo", transitional strategy, junior high school students, leadership development, modified-grounded theory approach

Introduction

Extracurricular sports activities play a significant role in Japanese education, with 71% of junior high school and 53% of high school students participating. These activities are highly valued by students in their school lives and have been shown to have a substantial impact on educational practices. Specifically, extracurricular sports activities complement subject teaching, positively influence academic achievement and proactivity in classes, promote school adaptation, and contribute to the acquisition of life skills necessary for dealing with various daily life problems. However, despite their educational value, extracurricular sports activities also present significant challenges. Supervising teachers often bear responsibilities beyond their primary roles, and there are concerns about the overemphasis on competitiveness leading to a win-at-all-costs mentality. This focus on competition has been linked to issues such as bullying and corporal punishment within sports clubs. In response to these challenges and broader social changes, including an aging population and growing disparities between urban and rural areas, the Japanese government has initiated a policy to transition extracurricular sports activities from schools to community-based programs. In 2020, the "School Work Style Reform in Light of Club Activity Reform" was issued, marking a significant shift towards the "gradual transition of weekend club activities to the community." Subsequently, the "Recommendations of the Conference on the Transition of Sports Club Activities to the Community" (Sports Agency, 2022) proposed a plan to gradually transition sports club activities in public junior high schools to the community over three years, starting from the 2023 academic year. This transition aims to address several objectives:

- Reduce the burden on supervising teachers.
- Provide diverse learning opportunities for students beyond the school environment.
- Contribute to community revitalization by involving local resources and stakeholders.
- Create a support system where the entire community contributes to students' growth.

While previous research has examined the impact of this transition on supervising teachers (Takagi et al., 2024), there is limited understanding of how students, particularly those in leadership positions, perceive and adapt to these changes. This study focuses on second-year junior high school students in leadership roles, aiming to understand their adaptation process and its implications for both educational practices and community development. The research questions guiding this study are as follows:

- How do students perceive the specific changes brought about by the community transition? This includes changes in coaching structures, facilities, practice times, and interactions with new participants such as external coaches, junior high school students from other schools, and elementary school students.
- What are the multidimensional impacts of this transition on students' perceptions and behaviors? This encompasses effects on their athletic perceptions, psychological states, social interactions, physical well-being, and daily life including academics.
- What are the stages in the students' adaptation process to these institutional changes? This involves examining how students' perceptions change over time, what challenges they face, and how they overcome these challenges.

By addressing these questions, this study aims to provide a comprehensive understanding of the community transition policy's effects from the perspective of student leaders, offering valuable insights for policymakers, educators, and community stakeholders involved in implementing and refining this significant educational reform.

Method

Participants

Participants were selected through purposive sampling to ensure rich information relevant to the research theme. The study focused on Prefecture A, which has clearly indicated its intention to implement the gradual community transition policy from the 2023 academic year. Within Prefecture A, baseball clubs were selected to operate under a system where students practice as school club members under the guidance of supervising teachers on weekdays, and as community club members under local instructors and external coaches on weekends. The study targeted second-year junior high school students (aged 13-14) who experienced the transition from school-based to community-based activities, starting from the beginning of the 2023 academic year. Specifically, students in leadership positions (captains, vice-captains, team captains, club presidents) from six public junior high schools were selected. A total of 14 students participated in the study. Details of the participants are provided in Table 1.

Table 1: *Details of the participants*

No	Participant	Interview date	Time(min)	Club	School	Position
1	A	3-Feb-24	32	O	S	Captain
2	B	3-Feb-24	24	O	S	Vice-Captain
3	C	3-Feb-24	21	O	S	Team Captain
4	D	3-Feb-24	25	P	T	Club President
5	E	3-Feb-24	23	P	T	Captain
6	F	3-Feb-24	20	P	T	Vice-Captain
7	G	4-Feb-24	24	Q	U	Team Captain
8	H	4-Feb-24	19	Q	U	Club President
9	I	4-Feb-24	23	Q	U	Captain
0	J	17-Feb-24	22	R	V	Vice-Captain
11	K	17-Feb-24	20	R	V	Team Captain
12	L	17-Feb-24	25	R	W	Club President
13	M	17-Feb-24	16	R	X	Captain
14	N	17-Feb-24	16	R	X	Vice-Captain

Data Collection

Data were collected through semi-structured individual interviews conducted in February 2024. Each interview lasted between 20 to 40 minutes, with an average duration of 22 minutes. Interviews were audio-recorded with participants' consent and later transcribed verbatim. The average transcript length was 4,755 characters (ranging from 2,805 to 7,741 characters). The interview guide (Table 2) was designed to explore participants' experiences and perceptions of the transition process, changes in their roles and responsibilities, and their interactions with new stakeholders. While the guide provided a structure, interviewers allowed flexibility to explore emerging themes and follow the natural flow of conversation.

Table 2: Interview Guide (Key Questions)

Topic	Questions
Overall Experience	• What do you find most enjoyable about your sports club activities?
Transition Experience	• How has your experience changed since the transition to community-based activities?
Leadership Role	• How has your role as a leader changed in the new community-based setting?
Relationships	• How have your relationships with coaches, teammates, and other participants changed?
Challenges and Adaptations	• What challenges have you faced in adapting to the new system, and how have you addressed them?
Personal Growth	• How do you think this transition has affected your personal development?
Community Involvement	• How do you perceive your role in the broader community through these activities?

Data Analysis

Data were analyzed using the Modified Grounded Theory Approach (M-GTA) (Kinoshita, 2003). This method was chosen for its suitability in analyzing social interaction processes and its effectiveness in developing bottom-up models from interview data, particularly in areas where existing theories may not fully explain the phenomena under study. The analysis follows these steps:

- Creation of verbatim transcripts from audio recordings
- Open coding of transcripts, identifying relevant data segments
- Creation of concepts through constant comparison of data segments
- Generation of categories and subcategories by examining relationships between concepts
- Development of a storyline and result diagram illustrating the relationships between categories, subcategories, and concepts

To ensure the validity of the analysis, multiple researchers were involved in the coding process, and member checking was conducted with participants. Additionally, a university faculty member specializing in qualitative research in physical education pedagogy served as a supervisor, overseeing the analytical process and providing guidance to enhance procedural and interpretive validity.

Results

The qualitative data obtained from semi-structured interviews with 14 junior high school students were analyzed to generate concepts, categories, and subcategories. In this paper, generated categories are indicated by 《 》, subcategories by < >, and concepts by □. Students' narratives are shown in quotation marks " ". The participant who spoke is denoted by (Alphabet), for example, A's narrative is represented as (A).

The analysis resulted in the generation of 13 concepts, which were grouped into 5 subcategories and 2 main categories (Table 3). The two main categories were: 《Adaptation Process to Community Transition Policy》 and 《Community Formation Process》. 《Adaptation Process to Community Transition Policy》 consisted of three subcategories: <Changes in Social Relationships>, <Awareness and Self-Understanding>, and <Changes in Approach>. 《Community Formation Process》 included <Formation of Collaborative Learning Networks> and <Community Development>.

Table 3
Categories, Sub-Categories, Concepts

Category	Sub-Category	Concept	Definition
Adaptation Process to Community Transition Policy	Changes in Social Relationships	Club and Community Activities	Changes in activity structure due to the transition from school-based clubs to community-based activities
		Opportunity to Experience Different Coaching Philosophies	Exposure to different coaching approaches from school supervisors and community coaches
		Elementary School Students' Participation in Practice	New interactions arising from elementary school students joining practices
		Joint Teams with Regional Junior High Schools	Expanded interactions through forming joint teams with students from other schools
	Awareness and Self-Understanding	Awareness of New Stakeholders	Recognition of new stakeholders (community coaches, students from other schools, etc.)
		Self-Understanding in the Face of Change	Reassessment of one's role and abilities in response to environmental changes
	Changes in Approach	Adaptation to Change	Development of strategies to adapt to new environments and situations
		Autonomous Decision-Making	Increase in independent decision-making and action
		Leadership Behavior	Enhancement of leadership skills in response to new challenges
Community Formation Process	Formation of Collaborative Learning Networks	Stakeholder Mutual Understanding Through Dialogue	Promotion of mutual understanding among different stakeholders through dialogue
		Shared Learning Experiences	Creation of mutual learning opportunities in diverse environments
	Community Development	Community Involvement in Student Growth	Recognition of the community's role in student development
		Contribution to Community Vitality	Contribution to community revitalization through sports activities

《Adaptation Process to Community Transition Policy》

<Changes in Social Relationships >

Students experienced significant changes in their social relationships due to interactions with new stakeholders:

- **【Club and Community Activities】** : Students experienced a shift from school-based clubs to community-based activities. "It's different now that we're part of a community club. We have more responsibilities, but also more opportunities." (A)
- **【Opportunity to Experience Different Coaching Philosophies】** : Students encountered various coaching styles from school supervisors and external coaches. "I've noticed that our school coach and the community coach have different ways of teaching. It's interesting to see how they approach the same skills differently." (E)
- **【Elementary School Students' Participation in Practice】** : The involvement of younger students in practices created new dynamics. "Having elementary school kids join our practices was a big change. We had to learn how to explain things simply and be more patient." (D)
- **【Joint Teams with Regional Junior High Schools】** : The community-based structure allowed interaction with peers from different schools. "Working with players from other schools has been eye-opening. We share techniques and strategies, which has really expanded my perspective on the game." (G)

<Awareness and Self-Understanding >

These new experiences led to increased awareness and self-understanding among the students:

- **[Awareness of New Stakeholders]** : Students became more conscious of their roles in relation to a broader range of participants. "I'm more aware now that our actions affect not just our team, but also the younger kids looking up to us and the community members supporting us." (J)
- **[Self-Understanding in the Face of Change]** : The transition prompted students to reflect on their own abilities and roles. "This change made me really think about my strengths and weaknesses as a leader. I've had to adapt my communication style to work with different people." (M)

<Changes in Approach >

As a result of these new relationships and increased self-awareness, students modified their approaches to activities:

- **[Adaptation to Change]** : Students developed strategies to navigate the new environment. "I've learned to be more flexible. Sometimes the community coach suggests a different strategy than what we're used to, so I've had to learn how to blend different approaches." (A)
- **[Autonomous Decision-Making]** : The new structure encouraged more independent thinking and action. "Now that we're part of a community club, I feel more responsible for making decisions. I consult with teammates and coaches, but ultimately, I need to take the lead in many situations." (M)
- **[Leadership Behavior]** : Students reported enhanced leadership skills in response to the new challenges. "I've had to step up more as a leader. With younger kids around and different coaches, I find myself mediating and explaining things more often." (C)

«Community Formation Process»

<Formation of Collaborative Learning Networks >

The adaptation process facilitated the formation of collaborative learning networks:

- **[Stakeholder Mutual Understanding Through Dialogue]** : Increased interaction led to better understanding among different groups. "We have more chances to talk with coaches, parents, and even local supporters now. It's helped us understand each other's perspectives better." (L)
- **[Shared Learning Experiences]** : The diverse environment created opportunities for mutual learning. "Working with elementary school kids has been eye-opening. We're not just teaching them; we're learning patience and communication skills too." (D)

<Community Development >

This collaborative environment contributed to broader community development:

- **[Community Involvement in Student Growth]** : Students recognized the community's role in their development. "I feel like the whole community is supporting us now. It's not just about our school anymore; we're representing our town." (I)
- **[Contribution to Community Vitality]** : Students began to see their activities as part of larger community engagement. "Our practices and games bring people together. I've noticed more local residents coming to watch and support us." (N)

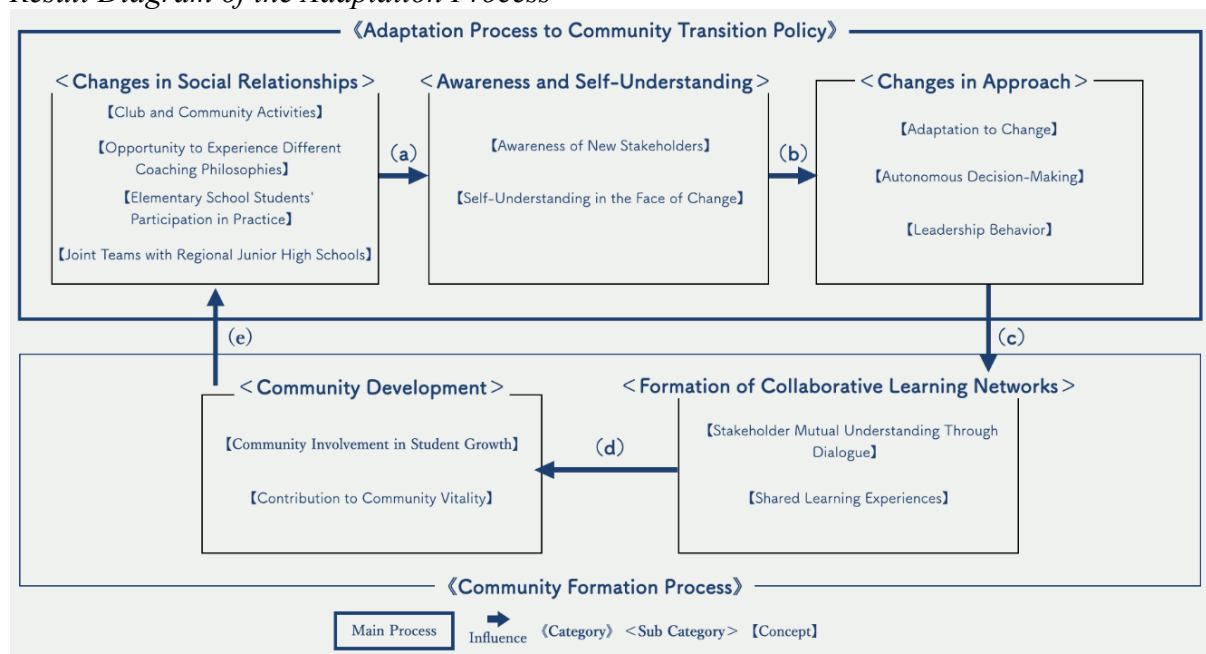
The community formation process, in turn, influenced students' social relationships, creating a cyclical model of adaptation and community development.

Storyline

The "Adaptation Process of Junior High School Students Experiencing the Community Transition Policy for Athletic Clubs" consists of the 《Adaptation Process to Community Transition Policy》 and the 《Community Formation Process》. Junior high school students experience new <Changes in Social Relationships> due to the community transition policy. New relationships with external coaches, elementary school students, and students from other schools emerge, requiring a sense of cooperation and collaboration. For example, joint practices with local elementary school students and combining teams with other junior high schools foster the ability to work with people of different ages and backgrounds. Additionally, receiving guidance from both external community coaches and school supervisors enhances students' adaptability to diverse coaching styles. The students develop <Awareness and Self-Understanding> in response to the new environment (a). Through this process of awareness and self-understanding, changes in the students' approach to activities are observed (b). Adapting to changes in the practice environment and different coaching methods leads to the development of leadership skills and autonomous decision-making. This illustrates the main process of the 《Adaptation Process to Community Transition Policy》. Through this main process, the students experience the <Formation of Collaborative Learning Networks> (c). Here, mutual understanding among stakeholders is promoted, and a space is created where junior high school students, external coaches, supervising teachers, and people from different positions and backgrounds share knowledge and skills and learn together. This forms the foundation for <Community Development> (d). The entire community supports the growth of junior high school students, promoting the revitalization of the community as a whole. This (Community Formation Process) then cycles back to influence <Changes in Social Relationships> (e). This cyclical process demonstrates a model where the community transition policy contributes to community formation, which in turn promotes the evolution of social relationships (Figure 1).

Figure 1

Result Diagram of the Adaptation Process



Discussion

Theoretical Implications

The results of this study can be interpreted through several theoretical frameworks:

- **Self-Determination Theory (Deci & Ryan, 2000):** The transition process appears to shift students' motivation from extrinsic to more intrinsic forms, as evidenced by increased autonomous decision-making and leadership behaviors. This shift aligns with the theory's emphasis on the importance of autonomy, competence, and relatedness in fostering intrinsic motivation.
- **Social Learning Theory (Bandura, 1977):** The expanded social relationships provide students with diverse models for learning, facilitating observational learning and skill acquisition. The integration of elementary school students and collaboration with peers from other schools offer new opportunities for modeling and vicarious learning.
- **Stakeholder Theory (Freeman et al., 2010):** The collaboration between different stakeholders in the community-based model strengthens social capital and promotes community cohesion. This aligns with Freeman's emphasis on the importance of considering all stakeholders in organizational decision-making and development.

Practical Implications

- **Supportive Transition Strategies:** Schools and community organizations should develop strategies to support students through the adaptation process, recognizing the multidimensional impacts of the transition. This could include mentorship programs pairing students with community members or structured reflection sessions to help students process their experiences.
- **Diverse Learning Environments:** The exposure to varied coaching styles and peer groups enhances students' adaptability. This diversity should be maintained and promoted in community-based programs, possibly through regular exchanges between different community clubs or inviting guest coaches from various backgrounds.
- **Community Engagement:** Policies should encourage and facilitate mutual benefit between student activities and community development. This could involve integrating community service components into sports activities or organizing joint community-school events.

Limitations and Future Research

While this study provides valuable insights into the adaptation process of junior high school students to community-based sports activities, it has several limitations that should be addressed in future research:

- **Generalizability:** The study focused on baseball clubs in one prefecture in Japan. Future studies should explore different sports, regions, and cultural contexts to enhance the generalizability of findings. This could include comparative studies across different prefectures or even cross-cultural studies examining similar transitions in other countries.
- **Stakeholder Perspectives:** While this study focused on student leaders, including perspectives from other stakeholders (e.g., coaches, parents, community members, school administrators) would provide a more comprehensive understanding of the transition process. Future research could employ a multi-stakeholder approach to capture the full complexity of the community transition.
- **Policy Implementation Variations:** As different regions may implement the community transition policy in varying ways, future studies could examine how these implementation

differences affect student experiences and outcomes.

Conclusion

This study illuminates the complex adaptation process experienced by junior high school students in leadership positions as they transition from school-based to community-based sports activities in Japan. The findings highlight the interplay between individual adaptation and community formation, suggesting that this policy change has the potential to benefit both student development and community revitalization. The study revealed a cyclical model where changes in social relationships lead to increased awareness and self-understanding, which in turn foster changes in students' approaches to their activities. This adaptation process contributes to the formation of collaborative learning networks and broader community development, which then influences students' social relationships, creating a continuous cycle of growth and community engagement. Key theoretical implications include the relevance of Self-Determination Theory in understanding motivational changes, the applicability of Social Learning Theory in explaining skill acquisition in the new environment, and the development of social capital through enhanced community connections as suggested by Stakeholder Theory. Practical implications for policymakers and educators include the need for supportive transition strategies, targeted leadership development programs, and policies that encourage mutual benefit between student activities and community development. The study also underscores the importance of maintaining diverse learning environments and adopting holistic assessment approaches for community-based programs. As Japan continues to implement this transition, understanding and supporting students' adaptation processes will be crucial for the success of community-based sports programs. This research provides a foundation for future studies to further explore the long-term impacts, stakeholder perspectives, and variations in policy implementation across different contexts. By fostering environments that support student growth, leadership development, and community engagement, the transition to community-based sports activities has the potential to not only address the challenges faced by the traditional school-based system but also to create new opportunities for holistic student development and community revitalization. Future research and policy implementation should focus on leveraging this cyclical process to maximize the benefits for both students and communities.

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The Influence of Psychological Capital on Subjective Well-being of Student-Athletes

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Abstract

Combining both academic and athletic workloads by student-athletes negatively influences their subjective well-being. Recently, psychological capital (PsyCap) has been introduced into sports as a resource that can help to cope with the demands of both academic and sports. Therefore, it is pertinent for student-athletes to maintain optimal subjective well-being despite being involved in dual roles of students and athletes. However, this study examined the influence of psychological capital (hope, efficacy, resilience and optimism) on subjective well-being (affect, life satisfaction and eudaimonia) of student-athletes. A total of 906 Nigerian university student-athletes from eight universities participated in the study survey. The study utilized Psychological Capital Questionnaire (PCQ-24) and Subjective Well-Being Scale (SWBS) to collect data from the respondents. Data collected were subjected to correlation analysis to determine the relationship between the variables, while multiple regression statistical analysis was conducted to test the hypotheses. The results showed positive relationship between hope ($r=0.210^{**}$, $p<0.05$), self-efficacy ($r=0.273^{**}$, $p<0.05$), resilience ($r=0.324^{**}$, $p<0.05$), optimism ($r=0.374^{**}$, $p<0.05$) and subjective well-being of student-athletes. The regression analysis showed that self-efficacy ($\beta=0.158$, $t=4.525$, $p<0.05$), resilience ($\beta=0.100$, $t=2.609$, $p<0.05$) and optimism ($\beta=0.289$, $t=8.580$, $p<0.05$) significantly influenced subjective well-being, while hope ($\beta=0.048$, $t=1.449$, $p>0.05$) did not. The findings revealed that self-efficacy, resilience and optimism significantly influenced the subjective well-being of student-athletes. Enhancing student-athletes' self-efficacy, resilience and optimism are helpful and beneficial to their subjective well-being. This study provided an insight into developing approaches that could promote student-athletes subjective well-being by school authorities, school sport providers, sport psychologists, health practitioners among others as they engage in dual roles of students and athletes.

Keywords: subjective well-being, psychological capital, student-athletes

Introduction

Student-athletes' subjective well-being is becoming a major concern as they combine dual roles of being students and athletes. Poor subjective well-being among this unique population may be associated with being exposed to various challenges of stressors as entering the college may demand environmentally independent adjustment to combine the dual roles of student and athlete, which may negatively impact their subjective and overall well-being. Subjective well-being (SWB) refers to how individuals assess their lives, be it negatively or positively in response to daily living (Proctor, 2014). Studies have shown that inability to manage various stressors among student-athletes may lower both their academic and athletic performance (Lopes Dos Santos et al., 2020; Hamlin et al., 2019), and affect their subjective well-being (Wang, Lee and Lu, 2015). This unique population requires psychological resources to cope with the demands of both academic and athletic to succeed in their pursuits. Recently, psychological capital (PsyCap) has been introduced into sports as a resource that can help to cope with the demands of both academic and sport, and improve subjective well-being (Luthans et al., 2007). Luthans et al. (2007) asserted that psychological capitals are people's capacities that help them to achieve optimal psychological and subjective well-being. Therefore, this study aimed at investigating the influence of psychological capital on subjective well-being of university student-athletes.

Subjective well-being, according to Diener et al. (2002) is defined as an individual's cognitive and affective assessment of his or her life. It is a personal appraisal of happiness, life satisfaction as well as positive and negative experiences. Cognitive well-being is characterized by cognitive assessment of one's overall life satisfaction within a boundary of particular domain, while affective well-being entails experiencing positive affects without negative form of affection. SWB is an essential element of general quality of life that reflects the individual's mental health status and developmental attitude (de Cates et al., 2015). Research has indicated that participation in sport has a positive effect on SWB (Liu & Zhong, 2023). Zhou et al. (2022) demonstrated that student-athletes maintain good health habits and possess more coping resources of quality of life than their counterpart non-student-athletes with lower record of depression among student-athletes. Student-athletes stage is a period that demands higher psychological coping resources as the responsibilities to have higher academic and athletic performance put a lot of pressure on them. Wang, Lee and Lu (2015) asserted that university student-athletes are a distinctive population that demands special attention as they might suffer from stress and burnout as they engage in dual roles of being a student and athlete.

PsyCap is an individual's positive psychological state of development that is concerned with how one behaves in the face of challenges to attain success (Luthans et al., 2015). PsyCap is primarily a positive construct, and a possible positive response to the pessimistic response through which the experience of stress by student-athletes is adjudged (Lopes Dos Santos et al., 2020). PsyCap is characterized by four core constructs which include hope, efficacy, resilience and optimism. Hope refers to the agentic determination and commitment to endure towards a goal, involving creating, re-approaching and managing many pathways to achieve such goal when necessary. Hope has been found to correlate with higher stress-coping strategies among university student-athletes (Chen & Chi, 2009), negatively influence life stress (Yang et al., 2023), improve mental health and emotional well-being (Singh & Singh, 2018), associate with positive life satisfaction, positive effects and reduced negativity (Muyan-Yılık & Demir, 2019). Efficacy refers to the belief or confidence in one's competence to perform a specific task to achieve a pre-specified goal (Bandura, 1997). Research revealed that self-efficacy is correlated with mental health (Singh & Singh, 2018), reduced stress (Sin et al.,

2015), had negative influence on life stress and burnout (Yang et al., 2023; Yang et al., 2013), changed challenges confidently and influenced decision-making abilities (Bandura, 1999), promoted higher life satisfaction and positive emotions (Caprara et al. 2006)

Resilience refers to the ability to endure or recover in the face of adversity to maintain progress. It is regarded as “the role of mental processes and behavior in promoting personal assets and protecting an individual from the potential negative effect of stressor” (Fletcher & Sarkar, 2012). Studies have shown that resilience is significant and related to stress, mental health, coping and recovery (Codonhato et al., 2018; Jaiyeoba et al., 2023), has positive influence on subjective well-being (Eldeleklioglu & Yıldız, 2020; Yildirim et al., 2019; Zubair et al., 2018) and enhanced student-athletes ability to thrive after experiencing adversity (Sorkkila et al., 2019).

Optimism, according to Luthans et al. (2007) refers to predisposition to be positive and confident in one’s belief about having successful expectations. That is, it is a demonstration of positive attitude towards expectance of a particular event. Optimists view the outcomes of future events in a positive manner and maintain a positive mental state. Studies have indicated that optimism is associated with SWB, as it has ability to lower stress encountered (Sin et al., 2015; Luthan et al., 2007), increased athletic performance (Lai et al., 2020) and improved mental health (Singh & Singh, 2018). Positive psychology ascertains that PsyCap is individual’s source of strengths that help to facilitate psychological and SWB. Employing PsyCap can equip one with ability to cope with challenges and adversities. Studies have shown that athletes with high PsyCap perform steadily under adverse situations and recover quickly after injury or loss (Chang & Chi, 2016), withstand stress and enjoy both physical and psychological well-being (Riulli et al., 2012; Culbertson et al. 2010).

University student-athletes are such a unique population whose subjective well-being demands special attention because of the dual responsibilities. These populations are required to work harder to achieve higher athletic performance and maintain good academic status. These expected results are achieved through rigorous sport training, competition, team traveling, regular attendance in the classroom for lectures and also, attending to given cumbersome assignments (Karagiorgakis & Blaker, 2021; Oluyinka & Endozo, 2019), These expectations exert maximum pressure on student-athletes as they experience higher psychological stress, fatigue, burnout emotional difficulties, social pressure, and inadequate social support than their normal student population counterparts (Reich et al., 2021). These experiences have potentially negative influence on student-athletes life satisfaction, positive emotions, mental well-being, lower SWB and amplify affinity for substance abuse. Holden et al. (2019) indicated that the dual roles of student-athletes are a source of stressor and great burden on their health rather than being a substantial benefit.

Maintaining optimum SWB and healthy living among these unique populations is important as they engaged in dual responsibilities of being a student and athlete. Tiwari and Kaushik (2023) indicated that PsyCap can be utilized as this can help to cope with various stressors and pressures associated with dual roles of student-athletes and improve SWB. Therefore, it is pertinent to examine the influence of psychological capital on subjective well-being of university student-athletes. The study hypothesized that: (1) there would be no significant influence of PsyCap on subjective well-being of university student-athletes.

Methods

Participants

A total of nine hundred and fifty (950) student-athletes from eight (8) different Nigerian Universities were recruited to participate in the study. A total of nine hundred and six (906)

participants completed the questionnaire given. 504 (55.6%) were males and 402 (44.4%) of the participants were females. Convenient sampling technique was used to select available student-athletes. Participants from various sports (i.e., both individual and team sports) were represented in the study. All levels of undergraduate academic from 100-500 student-athletes were represented with freshmen (100 Level) having 167(18.4%) participants, 200Level were 192(21.2%), 300Level were 212(23.4%), 400Level were 184(20.3%) and 151(16.7%) were 500Level student-athletes. Training periods per week were reported as 426(47.02%) participants attended training three times per week, 273(30.13%) attended four times per week and 207(22.85%) participants attended training five times per week.

Measures

Psychological Capital Questionnaire (PCQ)

Psychological Capital Questionnaire (PCQ) developed by Luthans, Youssef and Avolio (2007) was used to assess the elements of psychological capital level of the participant. The items were modified. For instance, the word 'work' was replaced with 'academic and sport'. The PCQ is a 24-item questionnaire comprises six (6) items each of the four subscales of hope, self-efficacy, resilience and optimism. Hope (e.g., "Right now I see myself as being pretty successful at academic and sport"); self-efficacy (e.g., "I feel confident in representing my academic and sport area in meetings with management"); resilience (e.g., "I can get through difficult times at academic and sport because I've experienced difficulty before"); optimism (e.g., "I always look on the bright side of things regarding my academic and sport"). The respondents were instructed to rate their present opinions on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). Three out of the 24-item questionnaires were reverse scored and coded (i.e., 13, 20 and 23). Scores range from 6 to 36 for each element with higher scores indicating higher respective elements. The overall Cronbach alpha coefficient of the PCQ-24 was .912 and the four elements of PCQ-24 ranged between 0.76 to 0.89.

Subjective Well-Being Scale (SWBS)

Subjective well-being of the participants was measured using the three subscales developed by Diener et al. (1985). The Satisfaction with Life Scale (SWLS, 1985) The comprises 5-item questionnaire for assessing respondents' overall appraisal of their lives (e.g., "In most ways my life is close to my ideal", "So far I have gotten the important things I want in life"). Respondents were instructed to indicate their opinions on a 7-point Likert scale ranging from 1 (Strongly Agree) to 7 (Strongly Disagree). The higher score of the respondents represents their overall satisfaction with life. The Scale of Positive and Negative Experience (SPANE) developed by Diener et al. (2009) is a 12-item questionnaire with 6-item positive emotional words (e.g., "Good", "Joyful" and "Pleasant") and 6-item negative words (e.g., "Bad", "Sad" and "Angry") was used to assess the emotional feeling of the participants. SPANE is rated on a 5-point Likert scale ranging from 1 ("Very rarely or Never") to 5 ("Very often or Always"). In this present study, the Cronbach alpha coefficients of the three subscales were 0.83, 0.78, and 0.74, respectively.

Procedure

Ethical approval for this study was obtained from the first author's university. Thereafter, the authors sought for permission from all the eight (8) sampled universities' Sport Department to clarify the purpose of the study and to have access to the participants for administration of questionnaire. The Management and Head Coaches concurred and supported the study. Upon securing the informed consent from the participants and assurance of confidentiality of data collected, the questionnaire was administered with the help of research

assistants before their usual physical training. It took approximately about 7-10 minutes to fill the questionnaire.

Data analysis

Data analysis was conducted using both descriptive and inferential statistics. Analysis of correlation was conducted to determine the relationship between variables, while multiple regression was conducted to determine the hypotheses of the study. Statistical Package for Social Sciences (SPSS) (version 24.0, IBM, New York, US) was used to perform the analysis.

Results

Table 1: *Correlation matrix, mean and standard deviation of (PsyCap) hope, self-efficacy, resilience, optimism and subjective well-being*

Variables	Mean	SD	Subjective WB	Hope	Self-efficacy	Resilience	Optimism
Subjective Well-being	65.34	5.55	1				
Hope	23.43	4.70	0.210**	1			
Efficacy	21.41	5.18	0.273**	0.376**	1		
Resilience	23.04	4.95	0.324**	0.386**	0.467**	1	
Optimism	17.85	6.27	0.374**	0.226**	0.176**	0.455**	1

N=906

Sig.(2-tailed):

Hope=0.000

Self-

efficacy=0.000

Resilience =0.000

Optimism=0.000

Correlation is significant at 0.05 alpha level ($p < 0.05$)

Table 1 shows that hope ($r=0.210^{**}$), efficacy ($r=0.273^{**}$), resilience ($r=0.324^{**}$) and optimism ($r=0.374^{**}$) had positive correlation with subjective well-being. This implies that an increase or improvement in hope, efficacy, resilience and optimism would influence subjective well-being among student-athletes. Moreover, it was revealed in this table that correlation coefficient's magnitude of hope, efficacy, resilience and optimism were weak.

Hypotheses Testing

Table 2: *Joint influence of PsyCap on subjective well-being of student-athletes*

R=.440 R ² =.194 Adj. R ² =.190 Std. Error=12.18992					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	32157.364	4	8039.341	54.103	.000

Residual	133883.275	901	148.594		
Total	166040.649	905			

As shown in table 2, it was found that the linear combination of PsyCap (hope, efficacy, resilience and optimism) was tested significant on SWB of student-athletes ($F_{(4,901)}=54.103$, $p<0.05$). The result yielded a coefficient of multiple regression of $R=0.440$ and multiple R-square of 0.194. The result also revealed that adjusted $R^2=0.190$; indicating that about 19.0% of variance was accounted for by the independent variables. This means that, there was a significant joint influence of hope, efficacy, resilience and optimism on SWB of student-athletes.

Table 3: *Relative influence of hope, efficacy, resilience and optimism on SWB*

Variables	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	35.784	2.472		14.476	.000
Hope	.139	.096	.048	1.449	.148
Efficacy	.412	.091	.158	4.525	.000
Resilience	.274	.105	.100	2.609	.009
Optimism	.625	.073	.289	8.580	.000

Table 3 shows hope, efficacy, resilience and optimism, the unstandardized regression weight (β), the standardized error of estimate ($SE\beta$), the standardized coefficient, the t-ratio and the level at which the t-ratio was significant. As indicated in table 3, efficacy ($\beta=0.158$, $t=4.525$, $p<0.05$), resilience ($\beta=0.100$, $t=2.609$, $p<0.05$) and optimism ($\beta=0.289$, $t=8.580$, $p<0.05$) were independently tested significant on SWB, while hope ($\beta=0.048$, $t=1.449$, $p>0.05$) was not. This means that there were significant relative influences of efficacy, resilience and optimism on SWB, while hope did not.

Discussion

This study was conducted to investigate the influence of psychological capital on subjective well-being of student-athletes. First, it was found that PsyCap was positively correlated with SWB of student-athletes with all the elements of PsyCap correlated positively with SWB. This implies that the higher the possession of PsyCap, the better the subjective well-being of the student-athletes. This finding is similar to the results of previous studies conducted by Chang and Chi (2016); Riolli et al. (2012); and Singh and Singh (2018).

Moreover, the study demonstrated that PsyCap significantly influenced SWB of student-athletes. This suggests that to maintain positive SWB, student-athletes must consider PsyCap as a vital psychological resource to manage the challenges of both academic and athletic demands. This is consistent with earlier findings by Tiwari and Kaushik (2023) and Culbertson et al. (2010). Tiwari and Kaushik (2023) found that PsyCap is closely related to SWB, highlighting its positive impact as a key factor in enhancing staff SWB. Culbertson et al. (2010) indicated that the four elements of PsyCap are essential psychological resources that foster and enhance a positive relationship with SWB.

Furthermore, three out of the four (efficacy, resilience and optimism) elements of PsyCap were relatively significant. This shows that student-athletes can heavily invest in psychological resources of PsyCap to maintain positive and improved SWB and life satisfaction. This is consistent with previous findings (Yang et al., 2023; Sin et al., 2015). On the part of efficacy, this finding indicated that self-efficacy significantly influenced SWB. It was noted that, the higher self-efficacy beliefs of individuals to perform a particular task and to involve in attitudes that enhance academic and athletic performance, the better the state of their SWB. This result corroborates with the study of Yang et al. (2023) that self-efficacy had negative influence on life stress of college baseball student-athletes. The authors added that self-efficacy that is a psychological state where individuals perceive themselves as capable of executing activities that enhance SWB. Similarly, Singh and Singh (2018) found that self-efficacy is significantly and positively associated with mental health among female teachers.

In the results, it was also found that resilience significantly influenced SWB of student-athletes which is consistent with previous findings (Jaiyeoba et al., 2023; Zubair et al., 2018). Sorkkila et al. (2019) indicated that resilience protects student-athletes to endure dissatisfied or difficult situation, bounce back and thrive after experiencing adversity and enjoy good well-being. Jaiyeoba et al. (2023) revealed that resilience is inversely correlated with the factors of stress which include conflict, burnout, lack of energy; and positively correlated with the factors of recovery which include general well-being, sleep quality, physical recovery, be in shape, social recovery, success, personal accomplishment, self-efficacy and self-regulation. Similarly, Zubair et al. (2018) showed that the higher level of resilience demonstrated by students correspond with greater SWB. Eldeleklioglu and Yildiz (2020) demonstrated that the relationship between expressing emotions and SWB was mediated by psychological resilience. Thus, resilience serves as a crucial psychological resource that positively enhanced SWB.

Lastly, optimism significantly influenced SWB of student-athletes. This indicates that maintaining a positive outlook and confidence in one's abilities amidst academic and athletic pressures can enhance SWB, foster effective coping and promote present moment enjoyment. This coincides with prior research (Sin et al., 2015; Chang & Chi 2016). Yang et al. (2023) demonstrated that optimism had significant negative influence on life stress. Similarly, Sin et al. (2015) indicated that optimism helped to reduce the level of stressors encountered by runners, in contrast to those with negative and pessimistic attitudes. In their study, Singh and Singh (2018) found that optimism was associated with mental well-being and also, significantly predicted mental health of female teachers.

Limitations

Despite the efficacy of this present study, some limitations were identified. First, this study adopted cross-sectional research design through which data was collected, thereby limiting the robust inferential causal relationships. Future research that adopts longitudinal design to determine causal relationship should be conducted. Second, the use of convenient sampling technique may limit the representativeness of the sample, particularly in relation to certain sports, thereby affecting the results and generalization of the findings. Future studies should consider employing sampling methods that ensure a more representative distribution across specific sport populations.

Conclusion

The present study examined the influence of psychological capital on subjective well-being of university student-athletes. This study demonstrated that there is a significant positive

relationship between psychological capital and subjective well-being. Also, the results of the study showed that psychological capital influenced subjective well-being. The study further revealed that three out of four dimensions of psychological capital (efficacy, resilience and optimism) significantly influenced the subjective well-being of student-athletes.

Recommendations

This study provides an insight into developing approaches that promote student-athletes subjective well-being by school authorities, school sport providers, sport psychologists, health practitioners among others as they engage in dual roles of student and athletes. The university authorities and Ministry of Education should come together to draw up a policy and curriculum that fosters and considers student-athletes since that are part of general university population that requires special attention, and more concerns should be given to the promotion of mental health of this unique population.

Interventions that promote constituents of psychological capital especially self-efficacy, resilience, optimism and subjective well-being of student-athlete should be developed and inculcated into their academic and athletic programme. Both teachers and coaches should be trained and endeavor to support this student-athletes population. They should encourage student-athletes to focus on their academic and athletics equally and let them understand the significant of being a student and an athlete at the same time. A well-structured academic and athletic programme should be drawn to disallow overtraining schemes, fatigue, and burnout that affect their SWB; and give a chance for rest and recovery of student-athletes. Sport psychologists and health practitioners should work together to help student-athletes develop strong mental ability and maintain optimum well-being in the course of their dual responsibilities.

Declaration of Competing Interest

The authors declare no potential conflicts of interest with respect to the research.

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Establishment of a Fitness Center as a Tool for the Achievement of Sport Science Entrepreneurship among Nigeria Undergraduates

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Abstract

Sports science is an aspect of the human kinetics of physical education, and it is a career in the field of sport as regards the establishment of fitness industry. It was observed that for an individual to have a fulfilled healthy and fitness life, establishing a fitness center it has an important role to lay in the better future for sport science students in higher institutions in Nigeria. This study focused on the establishment of fitness center as a tool for the achievement of sport science entrepreneurship among Nigeria undergraduates. A sample of 190 physical and health education were used for this study. This study employed the descriptive survey research design. The variables selected for the study were entrepreneurial mindset, personal attitudes and operating fitness center. The demographic data of the respondents were analyzed using frequency counts, percentage and bar chart while inferential statistics of chi-square (X^2) was used to test the stated hypotheses at 0.05 level of significance. The results showed that entrepreneurial mindset and operating fitness center significantly influenced fitness center establishment ($x^2_{cal} = 37.573$, $x^2_{crit} = 21.026$; $x^2_{cal} = 25.195$, $x^2_{crit} = 21.026$, $df = 12$), while personal attitudes ($X^2_{cal} = 0.029$, $x^2_{crit} = 21.026$, $df = 12$) does not significantly influenced fitness center establishment. Entrepreneurial mindset and operating fitness center significantly serve as a weapon in the establishment of a fitness center for the achievement of sport science entrepreneurship as considered among university undergraduates in Nigeria. It was recommended that sport science students should take sport entrepreneurship courses in other to learn the skills that are necessary for the establishment of fitness centers after school.

Keywords: mindsets, personal attitudes, operating, higher institutions

Introduction

Sport, an important aspect of daily life activities which have been supported by different authors and resources such as magazines, websites and television stations. There is great potential for sport scientists to positively striking performance during physical activities. Sports science as a discipline in human kinetics appears to be designed to the sports performance. Stones, Sands and Stone (2004) stated that sport science involved a tight interaction between the sports scientist and the direction of the development and implementation of the training interventions of the athletes to optimize sports performance at all levels. Sport is a multidisciplinary field (exercise physiology, biomechanics, motor control and motor development, sport psychology and sport nutrition. Sport science is a discipline of science that is related to the improvement of sport performance and may range from applied sport science to basic sport science (Haff, 2010).

Sport scientists need to be able to deliver sport science services to individual and athletes, strength and conditioning programme, fitness testing, psychological counseling and nutrition, conduct sports science research to answer various research questions and critically evaluate the validity of both scientific and coaching information coming from research journals, coaching magazines, websites, media and others using scientific knowledge and principles. These are extremely academics training which is related directly to sport experience. The sport scientist should be broadly trained to achieve entrepreneurial skills which are to identify business opportunities and receive a sustainable income, because the key obligation of sports science is to ensure establishment of a fitness center for sport science undergraduates.

Entrepreneurship is a concept of economy or business; it is a characteristic feature of an individual or society in essence. According to Atare (2021), entrepreneurship is generally referred to as being a key part of the process of fostering innovation in local and regional development. Sport science is a dynamic and unique industry that is unavoidably in numerous fronts. It is different from other entrepreneurs in that it starts many sport businesses solely based interest (Crick & Crick, 2016). Sports science entrepreneurs are people who use physical and typically concrete knowledge of sports science to start and run a business. Atilgan & Tukul (2022) added that without having a certain mindset combined with the rights skills, the entrepreneurial world can be an emotional rollercoaster that will more than likely lead to failure and thus, athletes ideally can be greater entrepreneurs as they possess this type of mentality, and a skill set that is perfect for achieving success in the business world.

In Nigeria, there is no specific sports scientist needed in any workplace and insufficient in higher institutions. This is the most concerned of researcher which corroborates with the study of Ruhayati, Damayanti and Rahayu (2019) that most lecturers have been concerned with academics content during their careers and not with vocational matters, this has been transformed to the sport science undergraduates because they want to expose their academics performance and most concerned among higher education staff regarding the academic integrity of work-related learning. According to Agwubike and Ogbouma (2010), there is currently an increased awareness of the relevance of fitness clinics in the promotion of good health and physical fitness. It is therefore surprising that there has in recent times, been an increase in the establishment of fitness center in our society while it can be conceded that the increase in the number of fitness center is a positive step towards improving the health and fitness status of the populace. But the major concern is that the sport scientists are not handling and supporting the establishment of fitness center.

Even with well-established guidelines for physical activity, most personnel in fitness center in major cities in Nigeria have little or no formal education or practical experience in designing and leading exercise programmes. Physicians often give patients recommendations to exercise, but they generally do not provide specific instructions for how to exercise (Adeogun & Adeyeye, 2019). Meanwhile, the fitness industry provides jobs for thousands of fitness trainers, instructors and sport science graduates which are well packaged for social media networks.

South Africa leads the continent in the fitness industry. According to Ventures Africa, available data shows that about 60 percent of South Africa's population is overweight. No wonder the country has the highest density of gyms and health clubs. Nairobi (Kenya) and Lagos (Nigeria) have also become booming markets for the fitness business. Health and fitness professionals recognize the important role that physical activity plays in improving and maintaining good health (Adeogun & Dansu, 2006). Unfortunately, the lack of professional credentials held by some individuals working in fitness center in major cities in Nigeria has slowed the acceptance of fitness professionals as legitimate members of the allied healthcare team by some healthcare providers. In a personal interview conducted at a popular hotel

providing fitness services to clients in 2009, it was discovered that a secondary school holder was employed simply because he was able to provide a sample video of previous aerobics class. This motivated the speaker to conduct an interview/survey of some popular fitness providers in 2010, 2013 and 2015 in Lagos State. The interview/survey revealed that most clients are not satisfied with the services provided by this fitness center.

This observation corroborates the worldwide Survey of Fitness Trends in 2014, clients ranked educated, certified, and experienced fitness professionals' number 3, though it was number 1 since 2008 (Thompson, 2014). Concern was expressed that there is minimal or inadequate training in risk management. Clients said that fitness professionals often lack experience, that there was a lack of support for new trainers, and that there was also a need for further, post-qualification professional training and development to ensure that people have the necessary skills to be effective and manage risks and there was no uniform pre-exercise screening tool. Therefore, the purpose of this research work was to investigate on the establishment of fitness center as a tool for the achievement of sport science entrepreneurship as perceived by sport science undergraduates in Nigeria.

Methodology

Research Design

Descriptive survey design was used for this study. This method most appropriate when one is studying large population that involves the use of questionnaire. The data is analysed and the result can be interpreted and finally generalized.

Population

In this context, the population of the study consists of all Human Kinetics undergraduates in Southwest Nigeria University.

Sample and Sampling Techniques

The sample was made up of one hundred and ninety (190) males and females from selected six (6) Universities in southwest Nigeria using convenient sampling technique.

Table 1: *Selected institutions*

S/N	Institutions	Frequency	Percentage
1	University of Ibadan, Oyo State	30	15.8
2	Lagos State University, Lagos state	36	18.9
3	Ekiti State University, Ado-Ekiti, Ekiti State	31	16.3
4	Olabisi Onabanjo University, Ago Iwoye, Ogun State	32	16.9
5	Obafemi Awolowo University, Ile-Ife, Osun State	31	16.3
6	Adeyemi Federal University of Education, Ondo State	30	15.8
	Total	190	100

Table 1 shows that the highest number of 36 respondents representing 18.9% randomly selected from Lagos State University. Next to that are 32 respondents representing 16.9% randomly selected from Olabisi Onabanjo University, 31 respondents representing 16.3% randomly selected from Ekiti State University and Obafemi Awolowo University, while 30 respondents representing University of Ibadan and Adeyemi Federal University of Education respectively.

Table 2: Age of respondents

Age range (yrs)	Frequency	Percentage
15-20	21	11.1
21-26	126	66.3
27-32	36	18.9
33-38	07	3.7
Total	190	100

Table 2 shows the frequency and percentage distribution of respondents by age range. The age of respondents revealed 21 (11.1%) to be between the range of 15 – 20 years, 126(66.3%) to be between the age range of 21-26 which constitutes the largest fraction. Ages between 27 – 32 years constitutes 36 (18.9%) years, while age range of 33-38 representing 3.7% respectively. Observation from the result indicated that the highest respondents were found between 21-26 of 126(66.3%) across the years.

Table 3: Gender of respondents

Gender	Frequency	Percentage
Male	115	60.5
Female	75	39.5
Total	190	100

Table 3, Figure 1 shows that the highest number of males were 115 respondents representing 60.5% while female 75 respondents representing 39.5%.

Table 4: Chi-square analysis on entrepreneurial mindset and fitness center establishment

Items	SA	A	D	SD
Driven by a passion for promoting health and wellness	112	37	14	27
Demonstrating a proactive and innovative approach towards attracting and retaining clients	69	37	66	18
Fostering a culture of adaptability in response to changing market dynamics	46	57	48	39
Encourage employees to think creatively and take ownership of their work	63	28	54	45
Encourage an entrepreneurial mindset by empowering individuals to identify and capitalizes on new growth opportunities	36	81	51	22

$X^2_{cal} = 37.573$, $x^2_{crt} = 21.026$, $df = 12$

The above table reveals that most respondents agreed that entrepreneurial mindset is an influential factor of fitness establishment. Based on the chi-square statistical analysis of 37.573 higher than the critical value = 21.026, $df = 12$ @ 0.05 sig, the hypothesis is hereby rejected which indicated that there is a significant influence of entrepreneurial mindset as influential factor of fitness center establishment among undergraduates. However, finding shows that entrepreneurial appreciation as a field of study requires good intentions and mindset as far as respondents process are concerned. Most respondents admit having creative thinking driven by a passion for promoting health and wellness. They have systems to empower individuals to identify and capitalize on new growth opportunities. They can evaluate technical feasibility and economics drivers. According to Lee and Wong (2003) found that entrepreneurship education programmes were not enough to promote entrepreneurial intentions and influence business start-up decisions.

Table 5: *Chi-square analysis on personal attitudes and fitness center establishment*

Items	SA	A	D	SD
Establishment of fitness center in the community enhances overall health and wellness	20	66	65	39
Provision of opportunities for undergraduates of all ages to improve their fitness level	28	98	37	27
Serves as a social hub, facilitating community bounding and encourage a sense of belonging	109	43	18	20
Contributes to economic growth and attracting new business in the community	61	15	32	82

$X^2_{cal} = 0.029$, $x^2_{crit} = 21.026$, $df = 12$

The above table reveals that 68% disagreed that personal attitudes do not significantly influence fitness center establishment. Based on the chi-square statistical analysis 0.029, $df = 12$, critical value = 21.026 @ 0.05 sig, the hypothesis is hereby accepted which indicated that there is no significant influence of personal attitudes on establishment of fitness centers among undergraduates. This is in line with the submission of Greene (2002) that it is difficult to foster new venture rates in regions that have less entrepreneurial areas. According to Atare (2021) there are different types of sport entrepreneurs with a variety of traits and characteristics that influence their personality in building a new venture capital. Motive is a socio-economic orientation of sport entrepreneurship as it includes both a person's behavior and the monetary expectations from a business venture. As sports entrepreneurs have different personalities their optimism and strategic foresight will enable them to take opportunities to fruition. Each sports entrepreneur's knowledge creates a repository of information that enables them to recognize certain opportunities.

Table 6: *Chi-square analysis on operational mode and fitness center establishment*

Items	SA	A	D	SD
Mode of its operation does not determine the promotion and marketing of fitness industry	63	45	59	23
Financial constraint reduces the establishment of fitness center	39	102	44	5
Opportunity and resources determine establishment of fitness center	22	40	78	50
Being a sport professional does not determine the establishment of fitness center	32	12	108	38
The establishment of a fitness center is an optional for after graduation in a University	23	26	84	57

$X^2_{cal} = 25.195$, $x^2_{crit} = 21.026$, $df = 12$

The above table reveals that 53% agreed that personal operational does not significantly influence fitness center establishment. Based on the chi-square statistical analysis 25.195, $df = 12$, critical value = 21.026 @ 0.05 sig, the hypothesis is hereby accepted which indicated that there is no significant influence of personal attitudes on establishment of fitness centers among undergraduates. Ratten (2010) confirmed that sports organizations around the world help the development of entrepreneurship by using social networks as capacity building for strategic development. The growing interest in fitness services is demanding optimal service management and operation. The current interest of the population in fitness center services and its complexity makes it necessary to improve their managerial practices. Successful business management of fitness centers is responsible for the wellbeing of the company and,

consequently, for the wellbeing of the customers that engage in physical activity (León-Quismondo et al., 2020).

Conclusions

From the findings of this study, it was concluded that:

1. The article provides an understanding of the attributes and perspective of entrepreneurial mindsets.
2. Personal attitudes do not have significant influence on the establishment of fitness center among the university undergraduates.
3. Operational mode significantly influenced establishment of fitness center. It relates to better understanding of the entrepreneurial mindsets and operational mode that most influence intentions of sport science undergraduates.

Recommendations

Based on the conclusions of this study, it therefore recommended that:

1. Future research and analyzing should link between intentions and behavior of sport science university undergraduates.
2. Undergraduates' programmes should be reconstructed to center on entrepreneurship which should relate to societal demands.

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Enhancing Game Performance through TGfU and SET Models: Evidence from Malaysian Aboriginal Primary School Football Student-Players

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Abstract

The efficacy of Game-Based Approaches (GBAs) such as the Teaching Games for Understanding (TGfU) and the Malaysian game-based model labeled Style E Tactical Model in football gameplay has not been tested among Malaysian Aboriginal student-players with different cultural and emotional backgrounds compared to Malaysian mainstream student-players. This study sought to determine how primary school student-players from Aboriginal communities were affected by the TGfU and Style E tactical (SET) educational methods. This study used a quasi-experimental design with pre- and post-tests with two intervention groups. In this study, 20 boys, aged 10±12, were split equally into TGfU (n = 10) and SET (n = 10); each group received interventions for six weeks. In a modified five-on-five game scenario, players' decision-making (attacking and defending) were evaluated. A one-way ANOVA was used to analyze the data. Detailed findings have been discussed but a summary suggests that there were no significant differences between groups in areas studied, except that the TGfU model seems to be better in terms of mean statistically. Suggestions for future research have also been suggested in light of their demands and difficulties, which revolve around their communication and cultural sensitivity.

Keywords: pedagogical model, aboriginal student-players, decision-making, and game play

Introduction

Football can be classified as the number one sport around the globe. This game has attracted people to love it either by playing during physical education learning class and coaching context or just by watching the game. In Malaysia, football is the number one sport whereby this sport is played at various levels (Karim & Nadzalan, 2017), as echoed in (Razak et al., 2020). The local football consultant, Subramaniam claimed the effort put into advancing the football potential of the Aboriginal people community by exposing them to proper channels is seriously inadequate, and the effects are apparent when there is a lack of indigenous representation in our national team (Dzulqarnain, 2021).

According to the Orang Asli Development Department (2018), there are approximately 40,124 Aboriginal youths in peninsular Malaysia, some of whom have the potential to excel in football if proper development initiatives are implemented. Aboriginal peoples are often characterized by their natural shyness (Brown & Fraehlich, 2011, as cited in Abd Rahim & Mohamad Diah, 2017), which can hinder their ability to engage with opportunities in sports. This shyness requires special attention and tailored approaches when coaching, as it affects their willingness to express emotions or interact in structured training environments. For Aboriginal youths to excel, they must develop a wide range of skills that are crucial for real-game situations, including technical abilities and mental intelligence for decision-making, strategy execution, and tactical application in both offensive and defensive situations (Jani et al., 2017; Capel, 2000 as cited in Jani et al., 2017). A needs analysis survey conducted by the researcher, with consent from Malaysia's Education Planning Research and Development Department (EPRD), revealed that Aboriginal youths' game performance is critical, highlighting the need for further research into the most effective game-based approaches to training. This underscores the necessity of adapting coaching methods to better suit Aboriginal players, allowing them to reach their full potential in sports. To support these efforts, the Ministry of Education (MOE) has taken steps to empower Aboriginal youths by offering equal opportunities for participation in sports. The MOE, through its Sports, Co-curriculum, and Arts Division, has introduced specific policies and organized the National Level Orang Asli Student School Games since 2010, which include football competitions (Kementerian Pendidikan Malaysia [KPM], 2010). This initiative provides Aboriginal students with platforms to showcase their talents, develop their skills, and compete at a high level. The MOE's efforts are aimed at producing world-class athletes from Aboriginal communities and empowering them through structured competitions. These tournaments offer Aboriginal students throughout Malaysia exposure and competitive opportunities, which help build confidence and demonstrate their talents without the burden of modesty. Thus, with the MOE's continued initiatives, Aboriginal youths are given opportunities to flourish in sports, including football.

The skill-based approach (SB) or technical method has been predominant in coaching physical activities and sports among Malaysian youth players (Nathan, 2015), mainly among Pahang Aboriginal youth players. The use of game-based approaches (GBAs) in football gameplay, such as the effectiveness of Teaching Games for Understanding (TGfU) and the Style E Tactical (SET) paradigm, a game-based paradigm used in Malaysia, has not been extensively examined in relation to Malaysian Aboriginal students with different cultural and emotional backgrounds than Malaysian mainstream students. The goals of this study are to determine the effects of TGfU and SET pedagogical model approaches on mini-games performance of decision-making (attacking and defending) between football training groups

TGfU and SET before and after interventions among Aboriginal youth football players under 12 at a selected primary school in 5 vs 5 gameplay.

Literature review

Skill-Based (Technical Model)

The approach is based on the analysis of technical and engineering skills that are seen as fundamental to the success of the play. These techniques are trained and developed so that players or students can do movements with good skills that can be applied in the game. An engineering approach to training is based on the notion that the technique must be learned before play. This was stated by (Blomqvist et al., 2001). The philosophy underlying this model emphasizes that when the basic skills have been mastered, the ability to play will be a process which means players or students should be able to play a game with the skills they have learned and put them in the context of a meaningful game. This approach also has a format sequence that begins with the warm-up, and development of skills, the game is modified and ends with the actual game. Although the tactical approach gets special attention in today's world, the technical model can still be used by the content and context of the objective of the lesson. Students who lack cognitive skills from the beginning, for instance, may find it difficult to learn and teach. Because of that technical model can be used by teachers to help them develop the necessary skills (Nathan, 2014, p. 67). Rink (2002) described both tactical and skill development in terms of four phases. Figure 1 illustrates this by placing an emphasis on skill before strategy.

Figure 1

Skill-Based / Technical Model, (Rink, 2002)

Stage one (1) Ability to control the object
Stage two (2) Execution skills in combination
Stage three (3) Basic offensive and defensive strategy
Stage four (4) Modified games or full games

The behaviorism theory is founded on the technical model, which is also known as skilled-based learning. According to Light (2003) and Nathan & Khanna (2015, p. 17), the theory emphasizes observable physical behavior and requires a highly structured and technical teaching approach. Behaviorists view learning and cognition as mechanical processes and try to break down learning into its most basic parts to understand it. The body is the subject of observable measurements in a skilled-based approach. Again, Light (2005), cited in Nathan & Khanna (2015, p. 17), argued that before beginning a more complex movement of gameplay, gamers should develop fundamental movement skills. This suggests a skill-based approach that is too vital in developing fundamental skills as a prerequisite for gameplay.

TGfU Model

The Teaching Games for Understanding (TGfU) approach, introduced by Bunker and Thorpe in 1982, presents a student-centered alternative to traditional sports education

methods. Grounded in constructivist theory and information processing, TGfU moves away from teaching isolated technical skills and instead engages students through modified game scenarios that encourage strategic thinking, decision-making, problem-solving, and skill development simultaneously. Unlike the conventional approach, which emphasizes drills and technique first, TGfU introduces games as a starting point, helping students understand the context before focusing on specific skills.

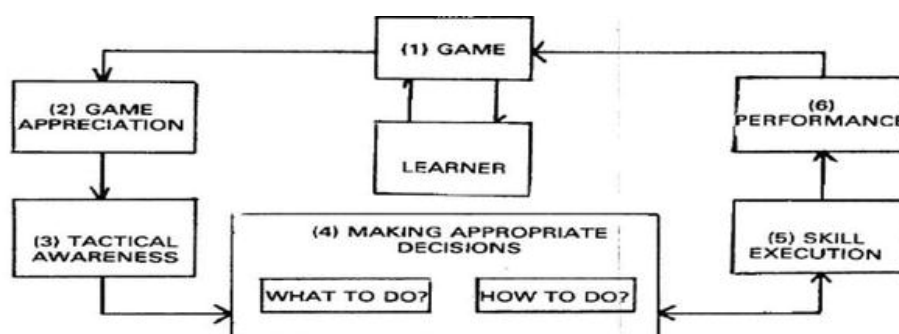
Several variations of TGfU have emerged, including Game Sense, Play Practice, and the Games Concept Approach. All emphasize the use of modified games deepen students' tactical understanding and adaptability. Central to TGfU is its pedagogical model that includes understanding the game, appreciating its structure, developing strategies, making decisions, and executing skills. Students begin by exploring the basic rules, structure, and objectives of a game. For instance, in football, they would learn about field dimensions, equipment, and regulations. From there, the focus shifts to strategy, where students gradually understand concepts like space and time, helping them solve problems within the flow of the game.

Decision-making is a crucial part of the TGfU model. It involves teaching students how to make the right choices about what to do, when to do, and how to do it based on the game situation, teammates' positioning, and opponents' movements. Performance and skill execution are introduced after students realize the need for specific skills, ensuring that skill development is purposeful and relevant to gameplay. These elements are customized to each student's level of experience and ability.

TGfU is applicable to four main game categories: Target Games, Net/Wall Games, Striking/Fielding Games, and Invasion Games. Its success relies on the teacher's ability to ask effective questions that guide students' tactical awareness and reflection. The inquiry-based approach encourages active participation, analytical thinking, and collaborative problem-solving. Fun and engagement occur naturally within this framework, as students learn through meaningful play rather than repetitive drills. Overall, TGfU promotes a more holistic and effective method of teaching games by making learning dynamic, interactive, and closely tied to real-game experiences.

Figure 2

Schematic TGfU pedagogical (Adapted originally from Bunker & Thorpe, 1982)



Mosston & Ashworth Teaching Styles Spectrum Theory

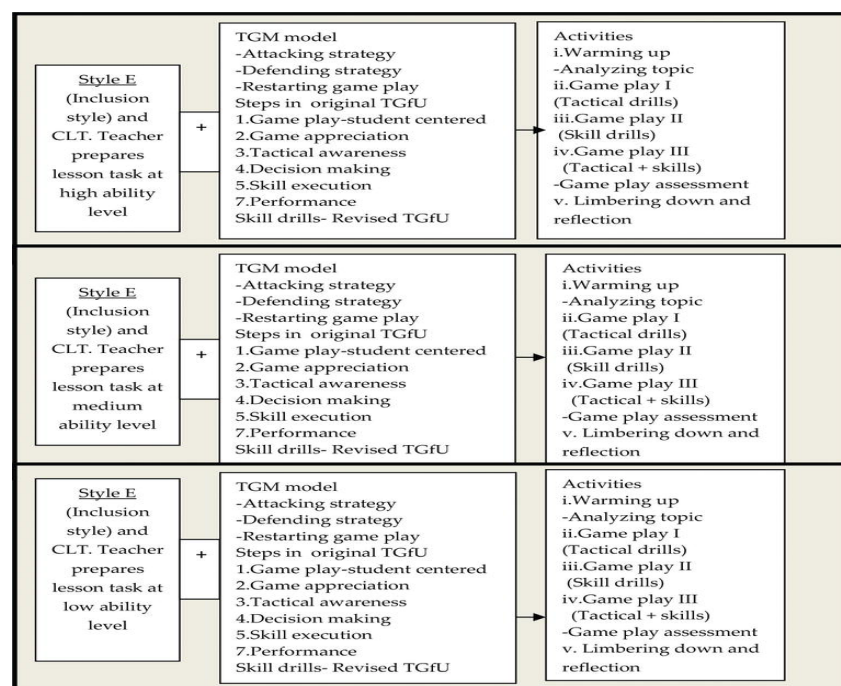
Mosston was the pioneer of the lesson styles spectrum in the physical education field in 1996 as cited in Jani (2011, p. 7). This spectrum illustrated lesson styles as a gradual process from teacher-centered to student-centered. Besides, this spectrum also involves the rules of decision-making by teachers-students, or both in the lesson process. There are three

choose activities based on their individual skill levels categorized as low, medium, or high. Using teacher-prepared criteria checklists, students assess their own performance and progress at their own pace. The model is structured into three main phases: pre-impact, impact, and post-impact. In the pre-impact stage, teachers plan and present lessons with varied levels of difficulty and establish a tactical framework around attack, defense, and game restarts. The impact stage focuses on gameplay, where students select tasks aligned with their skill level while teachers guide them through TGfU's six steps: game form, respect for the game, tactical awareness, decision-making, skill execution, and application in real-game contexts. In the post-impact stage, students reflect on their performance and provide feedback to improve learning outcomes.

The SET model is implemented through a seven-step sequence: warm-up activities, group division based on skill level, tactical discussion, initial mini-games, specific skill drills, secondary gameplay with reflection, and a final mini-game for high-skilled players Nathan (2007). Throughout, teachers act as facilitators, intervening as needed while promoting guided discovery. This structure supports not only the psychomotor and cognitive domains but also addresses social-emotional development by encouraging collaboration and personal growth. The model is particularly aligned with the constraint-led approach to learning, considering task, performer, and environmental factors to enhance game performance. It fosters adaptability and autonomy, helping students develop tactical thinking, technical skills, and emotional intelligence. While the SET model shows great promise, it is still in its early stages, and further empirical research is needed to evaluate its long-term effectiveness across diverse educational contexts. Nonetheless, SET's holistic, inclusive, and game-based nature makes it a valuable framework for teaching sports, allowing students of varying abilities to engage meaningfully, reflect critically, and grow both as athletes and individuals.

Figure 4

Schematic SET pedagogical (Adapted originally from Nathan, 2016)

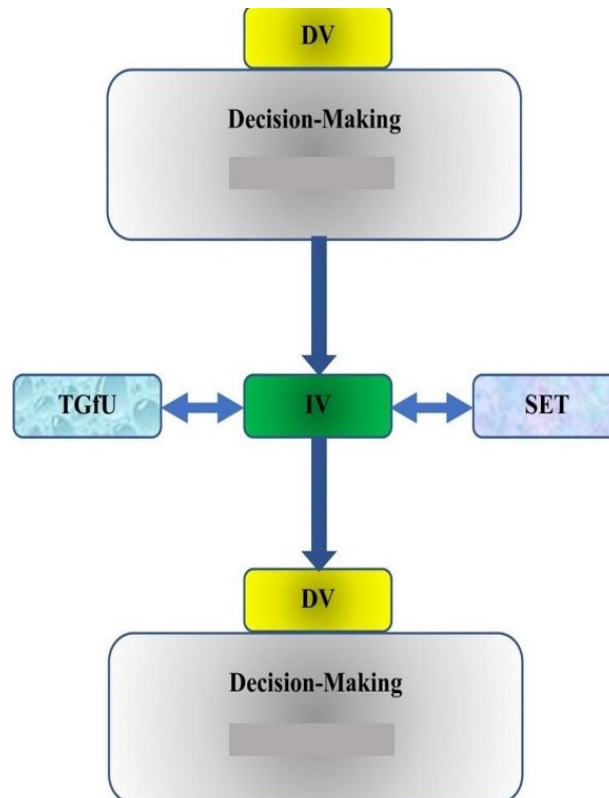


Methods

A quasi-experimental study was conducted to investigate the effects of two intervention groups on the performance of twenty boys aged 10-12. The boys were randomly assigned to two groups, TGfU (n=10) and SET (n=10). The six-week interventions have been completed, and pre-and post-tests were administered to evaluate their performance in a modified 5 versus 5-game scenario. The players' decision-making skills (attacking and defending) were assessed. The results were examined with one-way ANOVA.

Figure 5

Research conceptual framework



This study used a quasi-experimental approach with pre- and post-tests between two intervention groups. The quasi-experimental design provides a mechanism that causes a range of unpredictable environments that produce specific causal conjunctions and in real-world settings, logistical, ethical, sociological, or practical limitations may prevent investigators from fully controlling or enabling the randomization of the intervention (Handley et al., 2018). Handley et al. (2018) also stated the ability to evaluate intervention effects in real-world contexts and frequently for a wider range of individuals and environments is one of the advantages of quasi-experimental design. This study completed six weeks of interventions. All the subjects have undergone two sessions per week for each group which are the TGfU group and SET group with one hour per session respectively. A maximum intensity of six weeks for the central nervous system to be strained just enough to induce neuromuscular adaptations that lead to explosive power, and without suffering from extreme tiredness, depth is the ideal amount of time (Adam et al., 1992 as cited in Asadi & Ramírez-Campillo, 2016). The fidelity had been determined by concerning the implementation aspects of both models during the briefing session whereby the researcher had implemented a stint of training unit and provided the checklists for coaches at the chosen school. The limitation of this study involved only one school, which is a primary school in a remote area. This school had been chosen based upon the fact that the majority of Aborigine students are schooling there. The samples consisted of 20 males aged 10±12 years old. Official permission from the Education Planning Research and Development Department (EPRD) of Malaysia and the University party had been applied before entering the field of study. Then, the consent forms from all the participants as well as their guardians were obtained before interventions. The standard of operation for sports activities provided by the Ministry of Education of Malaysia (MOE) has been complied with thoroughly.

Intervention

The TGfU training sessions followed the six steps by Bunker & Thorpe (Nathan, 2015) and the nine features outlined by Barquero-Ruiz et al. (2020). The sessions involved real-game activities, skill drills, and reviews to link tasks to full games. A framework based on key principles like possession and defending helped players develop tactical awareness. Small-sided games increased participation, while balancing task difficulty with player ability ensured success. Coaches used questions and game modifications instead of direct instructions to encourage reflection, problem-solving, and self-directed learning, aiming to improve both technical and tactical skills in players.

The SET training sessions, developed by Nathan (2018), follow a three-stage process: pre-impact (task setup), impact (lesson intervention), and post-impact (reflection). The model, designed for sports like football and hockey, integrates elements of TGfU and Mosston's Inclusion Style, aligning with task, performance, and environmental constraints.

Instrumentation

The Game Play Observational Instrument (GPAI) was utilized in the study to assess how interventions affected each of the dependent variables. Decision-making (attacking and defending) were used to assess the performance of the players during the game. The reliability of using this instrument is 0.85 on decision-making in football (Oslin et al., 1998). The table below shows the game's components, criteria, and index calculation (GPAI).

Table 1

Game's components, criteria and index calculation (GPAI). Adapted and Adopted from Mitchell, Oslin, & Griffin (2003).

Game's Component s	Criteri a	Index Calculation
Decision Making	Choosing the right skill and open and closed space while attacking and defending situations. Players or students make the appropriate decisions when they have the ball or without the ball: a) Players or students make the passing to the other teammate, receive the ball from the teammate, dribble, run to create space to keep the ball possession in open and closed space, and do scoring while in attacking situations. b) Players or students trying to win the ball, make the passing to the other teammate, receive the ball from the teammate, dribble, run to create space to keep the ball possession in open and closed space, and do clearance while in defending situations.	DMI = Appropriate decision made / Appropriate decision made + Inappropriate decision made.

There were 20 samples which were male students aged 10 ± 12 years old involved in the pioneer study to ensure the reliability of TGfU and SET training unit as well as the instrument (GPAI). Game play was recorded in 20 m x 10 m grid and the evaluation was conducted by using GPAI. Test and re-test methods were carried out for reliability purposes and the findings indicated $r = .859$ for decision-making.

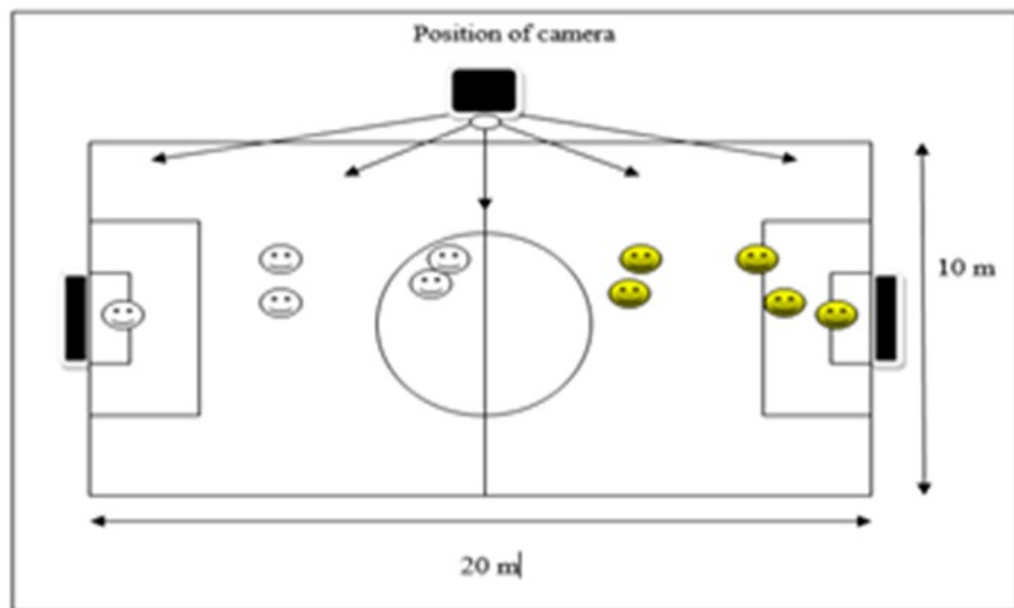
Data Collection

The data had been procured once at the pre-test and the second time at the post-test. In a modified 5 versus 5 game scenarios, how players made decisions during the game (both attacking and defending) were evaluated. Having finished with the pre-test, the interventions

were conducted for six weeks with two days per week (one hour for every session) for TGfU and SET groups respectively. The post-test had also been conveyed after six weeks of interventions had been completed. All the dependent variables were evaluated by utilizing gameplay observational instruments by watching all videotapes of 5 versus 5 at pre and post-test for 10 minutes respectively in gameplay situations. The figure below illustrates the field area and the position of the camera during video recording.

Figure 6

The field area and the position of camera during video recording



Results

Score data at pre and post-test were analyzed by using Statistical Packages for Social Science (SPSS) version 23.0. One-way interactions between groups ANOVA was used to determine the most significant score regarding the ability to make decisions (attacking and defending) in a 5 versus 5 modified game scenarios. The findings; mean (M), standard deviation (SD), and ANOVA were compared with each group to test the null hypotheses at pre and post-test levels.

Decision-making

At pre-test, there was a significant difference between TGfU (M/SD: 8.70 ± 5.20), and SET (M/SD: 3.20 ± 2.29 , ($F(1,18) = 9.33$, $p < 0.05$). However, at post-test, there was no significant difference between TGfU (M/SD: 7.30 ± 5.05), and SET (M/SD: 4.10 ± 2.84 , ($F(1,18) = 3.04$, $p > 0.05$). The table and figures below showed the Mean (M) and Standard deviation (SD) for decision-making at pre and post-test.

Table 2
Pre and post-test for decision-making

Model	<i>M</i>	<i>SD</i>	<i>N</i>	<i>P</i>
Pre- test	8.70	5.20	10	$F(1,18)=9.3$
TGfU	3.20	2.29	10	$3, p < 0.05$
SET				
Post- test	7.30	5.05	10	$F(1,18)=3.0$
TGfU	4.10	2.84	10	$4, p > 0.05$
SET				

Discussion

In this study, players were randomly assigned to two intervention groups: TGfU (n=10) and SET (n=10). Although the initial sample exceeded 30, the final number decreased due to cultural and personal factors, such as absences, school dropouts, and mourning customs that restrict physical activity. Despite these challenges, post-test results showed impressive performance improvements in both groups, particularly in decision-making skills. These findings align with previous research (Balakrishnan et al., 2011), as both approaches emphasize tactical awareness. While a significant difference existed at the pre-test stage, no such difference was observed in the post-test, highlighting the effectiveness of both methods.

The study found that differences in sample selection led to the TGfU group having more high-skilled players and the SET group more low-skilled ones. Despite this, both groups showed improvement post-test, with no significant difference between them, supporting earlier findings on GBAs and decision-making (Nathan et al., 2013; Nathan & Khanna, 2014; Nathan, 2015; Jani et al., 2017; Sierra-Ríos et al., 2020). Nathan (2012, 2015) emphasized the importance of combining indirect and direct teaching methods, especially for low-skilled or Aboriginal players, who often struggle with fully indirect approaches due to cultural and learning barriers, particularly in developing countries like Malaysia.

Sierra-Ríos et al. (2020) emphasized that game-based training should be a long-term process to see significant progress in game skills. However, the study found that many low-skilled Aboriginal players were too shy to engage fully, which hindered the use of guided discovery. Aboriginal people are often introverted (Brown & Fraehlich, 2011, as cited in Abd Rahim et al., 2017). To address this, the Ministry of Education (MOE) has organized Indigenous school sports tournaments to identify and develop sports talent, offering opportunities for students to participate at the national level and pursue sports professionally (KPM, 2011, 2023).

This study highlights the importance of developing Aboriginal youth through effective training, as they face challenges adjusting to society after being cut off from their traditional communities. This isolation can harm their cultural identity, self-worth, and contribute to health and social issues, including depression and substance abuse (United Nations, 1995). Factors like geography, low literacy rates, and negative perceptions further hinder their development (Hassan & Ramli, 2020; Redzuan & Mohd Taufiq, 2018). In response, the Ministry of Education (MOE) has introduced programs under the Orang Asli and Indigenous Education Transformation to holistically prepare Aboriginal students for future challenges (KPM, 2013).

Conclusions

The TGfU model appears more effective than the SET model in enhancing decision-making due to differences in skill levels between high-skilled (TGfU) and low-skilled (SET) student-players. Setiawan and Nopembri (2004) found TGfU improves understanding, engagement, motivation, and creativity in gameplay. While SET is still in early development for various skill levels, it requires further refinement. Future research should assess both model's efficacy among Indigenous students, considering physiological, educational, and socio-cultural factors. Emphasizing grassroots development is crucial to promote Justice, Equity, Diversity, and Inclusion (JEDI) through GBAs (Haneishi et al., 2023 as cited in Pill et al., 2023, p. 175).

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Emotional Maturity among Rural and Urban Female College Athletes

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Abstract

According to (Menninger, 1999) emotional maturity can be defined as a process in which the personality is always determined for better sense of emotional well-being. Research studies conducted by Tamminen et al. (2016) have shown that athletes feel that their emotional expression has an impact on others around them. This is important to study due to the fact that the emotional side of athletes is often overshadowed by physical performance. These findings have given an in-depth understanding to what all goes into the concept of emotional maturity. The purpose of the present investigation was to study the emotional maturity among rural and urban female college athletes. A total number of 100 female (N=50 rural and N=50 urban) college athletes who were continuing their undergraduate courses at Shailabala Women's Autonomous College, Cuttack, Odisha were included in this study. All samples were randomly drawn from the population. Emotional Maturity Scale developed by Roma Pal (1988) was used for data collection. T-test was used to analyze the data obtained from the sample on 5 different aspects of emotional maturity such as emotional instability, emotional regression, faulty social adjustment, lack of independency, and flexibility and adaptability. Result showed that rural female college athletes are significantly differing from urban female college athletes in emotional maturity. From the above study, it is concluded that the rural female college athletes are less emotionally matured compared to urban female college athletes.

Keywords: Rural, Urban, Female Athletes, Emotional Maturity

Introduction

Emotional Maturity is a measure of one's capacity to create a positive mental attitude. Emotional maturity can be understood in terms of self-control which in turn is a result of thinking and learning. According to Chamberlain (1960), an emotionally mature person is one whose emotional life is well under control. Menninger (1999) defined emotional maturity can be defined as a process in which the personality is always determined for better sense of emotional well-being.

Emotions are a natural component of sporting events and have a significant impact on a range of human reactions related to sports, including decision-making, motor responses, learning, intention, and social behavior. Any athlete can benefit greatly from emotional maturity. Only those athletes who are successful are able to manage their emotions while also making the most of the energy that comes along with them. Studying in higher education exposes students to a variety of new challenges including academic demands, autonomy toward to their needs and activities, and more independent in learning than the previous education (Credé & Niehorster, 2012). Successful college adjustment can be seen from their involvement in institutional activities, psychological wellbeing, and good academic performance (Mutambara & Veni, 2012).

According to Good (1981), emotional maturity refers to emotional patterns of an adult who has progressed through the inferior emotional stages' characteristic, of infancy, childhood and adolescence and do not deal successfully with reality and to adult love relationship without under emotional strain. Crow and Crow (1962), has also revealed "that emotionally mature or stable individual, regardless of his age, is the one who has the ability to overcome tension to disregard certain emotion stimulators that affect the young and view himself objectively, as he evaluates his assets and liabilities and strive towards an improved integration of his thought, his emotional attitude and his overt behavior".

Rathee and Salh (2010) found that international players are significantly better in emotional maturity as compared to state players. Emotional maturity is a process in which the personality is continuously striving for greater sense of emotional health, both intra physically and intra-personally according to Smitson (1974). Joshi's (2017) study found a statistically significant difference in the emotional maturity of boys and girls. Kumar and Sunilima (2016) conducted a study with the objectives to find out differences between male-female and urban-rural undergraduate students regarding their emotional maturity. The findings of their study revealed that no significant difference was found in the emotional maturity of undergraduate students based on their gender and locality. Male and females of the urban area showed equal levels of emotional maturity, but it was difference in terms of locality especially the rural. The emotional maturity of rural male students was found higher than the rural female students.

According to a study by Bindu and Vajeela (2014), secondary school students' emotional maturity is moderate—it's neither high nor low. They observed that there were variations in the pupils' emotional development depending on their family structure and place of residence, but there was no variation based on gender. Research by Ramesh D. Waghmare (2018) on urban and rural college students regarding EM showed that city students showed more social maladjustment, emotional instability, and dependency when compared to rural students.

Objective

The objective of the present investigation is to study the emotional maturity among rural and urban female college athletes.

Hypothesis

H1: There will be no significant difference in the emotional maturity among rural and urban female college athletes.

H2: There will be significant difference in the emotional maturity among rural and urban female college athletes.

Method

Respondents

The sample comprised 100 female college students (N = 50 rural female college athletes and N= 50 urban female college athletes) studying graduate courses at Shailabala Women's (Auto) College, Cuttack, Odisha. All the female college athletes have participated in various State and National level competitions in sport. Participants ranged in age from 18-25 years (mean age= 21.5 years).

Instrument

The following instrument was used for collecting data from the sample.

Emotional Maturity Scale (EMS)

Emotional maturity scale developed by Roma Pal (1988) was used to measure emotional maturity the scale contains 40 items with totally agree, neutral, generally, disagree and totally disagree. Response alternative the responses were marked 5,4,3,2 and 1 respectively and from the responses we had to select only one response in every sentence. 5 for tick mark totally agree, 4 for tick mark agree, 3 for tick mark neutral, 2 for tick mark disagree and 1 for tick mark totally disagree. The maximum possible score is 200 and minimum is 40. Scoring pattern shows that more scores indicates less emotional maturity. The less score in the scale indicates good (more) emotional maturity. The reliability score of emotional maturity scale comes to 0.84, derived by the split half method, obtained from the sample of 200 students. The researcher of the present research has found out the reliability score as 0.81, by using split-half technique on the sample of 50 students.

Procedure

The instruments used in this present study were compiled and printed out in English. The respondents filled up the questionnaire individually in the presence of the researcher in their off-college hours.

Analysis and Results

Table 1

Significance Of Mean Difference Between Rural and Urban Female College Athletes

GROUPS	N	MEAN	SD	T-VALUE
Rural female College Athletes	50	105.96	13.11	3.25**
Urban Female College Athletes	50	97.96	11.43	
df= 98, P<.01				

To study the significance of mean difference between rural and urban female college athletes on emotional maturity, t-test was applied. In table -1, with df = 98, the result revealed

that rural female college athletes are differing significantly from urban female college athletes on emotional maturity. The mean and the standard deviation score of rural and urban female college athletes in emotional maturity is found to be ($M=105.96$ and $Sd=13.11$). And the mean and standard deviation score of urban female college athletes on emotional maturity is found to be ($M=97.96$ and $Sd=11.43$). It means the rural female college athletes are less emotionally mature compared to urban female college athletes.

Discussion

The objective of the present investigation was to study the emotional maturity of rural and urban female college athletes. T-test was applied for the data analysis. In proving the hypothesis, the result is found to be significant. The result revealed that the rural female college athletes are differing from the urban female college athletes in their emotional maturity. The mean score and the standard deviation of the rural female athletes was found to be (105.96 and 13.11) respectively. The mean score and the standard deviation of the urban female college athletes was (97.96 and 11.43) respectively.

As per the result analysis, the rural female athletes are less emotionally mature compared to the urban female college athletes. The result could be due to the fact that the urban female college athletes are getting lot of opportunities to practice and participate in different sport competitions. And the exposure to the different sports competitions is helping the urban female athletes to become emotionally mature compared to the rural female college athletes. In the other hand, lack of exposure to various sports training programmes, and different sport competitions, the rural female college athletes are found to be less emotionally matured. Similar results were found in the research conducted by Ramesh D. Waghmare (2018). In his research on urban and rural college students regarding EM showed that city students showed more social maladjustment, emotional instability, and dependency when compared to rural students. The result of the present study showed that the rural female athletes are significantly differing from urban female college athletes in emotional maturity. The second hypothesis (alternate hypothesis) was proven, and the null hypothesis was rejected.

Conclusion

The present study is an attempt to explore the emotional maturity of rural and urban female college athletes. From the result, it is concluded that urban female college athletes are found to be more emotionally matured compared to the rural female college athletes. From the result, it is concluded that exposure to be given to the rural female college athletes for more participation in sports training camps and different sports competitions to motivate and encourage the rural female college athletes to develop their emotional maturity.

Suggestions for Further Research

- The sample of the study consists only of female athletes. Therefore, in future research, male college athletes need to be tested to see the gender difference on emotional maturity.
- Other psychological dimensions should be taken into consideration for better understanding of the process.

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Enhancement of Performance of Players with “NIP” Visualization Mental Training

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Abstract

The tough challenges encountered by a sports person while participating, competing and winning national and international events are always the discouraging elements that a sportsman spirit come face to face with. The physiological side that's intensely subjected by training modules, high endurance training sessions, anticipation based extreme pressure from

trainers creates a kind of confidence. When such confidence crumbles despite all efforts above, a sudden vacuum fill and dispirits the accumulated credibility over self. This is where the critical participation of mental faculties through researched, tested and channelized studies through NLP visualization techniques (balloon exercise) helps to overcome from the prevailing inadequacies that develop at later stages in high competition environment. This NLP training program entails a four-week training for 6 athletes (cricketer, shuttle, tennis, runners), it must be done in a comfortable environment by giving the psychoeducation and after making them understand how this model works with brain and body training was given to them. In the pre-test, athletes' performance in their events was assessed. The results showed that NLP visualization training significantly improved athletes' performance (less ANTs, more speed and quick time) in winning competitions. This paper deals with one of the most effective methods NLP visualizations (balloon exercise), how it helps the players to give the effective performance in the competitions.

Keywords: mental training, NLP visualization, balloon exercise, performance

Introduction

In the world of sports, where the margins of victory can be very small, athletes are constantly seeking ways to gain a competitive edge. While physical training and technical skills development have traditionally dominated the area of performance enhancement, the importance of mental training techniques, such as Neuro-Linguistic Programming (NLP), is increasingly recognized. NLP helps athletes create more positive associations with their talents and performance and teaches them to focus on what they can achieve instead of worrying about mistakes or failure.

Neuro-Linguistic Programming, often referred to as NLP, is a field that examines the intricate connection between neurological processes, language, and behavioral patterns learned through experience. Coined by Richard Bandler and John Grinder in the 1970s, NLP encompasses a wide range of techniques and strategies to improve communication, enhance personal development, and modify patterns of thought and behavior. It is based on the belief that understanding and utilizing the language of the mind can empower individuals to achieve excellence in various aspects of their lives. The term "Neuro-Linguistic Programming" refers to a stated connection between the neurological processes (Neuro), language (Linguistic) and behavioral patterns that have been learned through experience (Programming) and can be organized to achieve specific goals in life.

NLP is a revolutionary approach in developing human and personal relations emphasizing three different concepts of neurology, linguistics, and planning. Mental resources (the neurotic section) are used by utilizing NLP techniques; having access to the goals is facilitated using the verbal element (verbal or lingual section); and restraining mental conditions and organizing beliefs and values shall be accomplished for getting access to desired results (planning). In short, it can be argued that NLP describes the fundamental dynamics between mind (brain and nerves) and language (speech) and how they mutually affect our bodies and behavior (programming).

Role of Mental Training with Neuro-Linguistic Programming (NLP) Practices

The study on the role of mental training with Neuro-Linguistic Programming (NLP) practices to enhance performance in players holds significant importance in the field of sports psychology, and it is crucial for people to know about it for several reasons:

1. **Comprehensive Approach to Performance Enhancement:** Sports psychology aims to optimize athletes' performance by addressing both the physical and mental aspects of their abilities. The study of mental training with NLP practices offers a comprehensive approach to performance enhancement, acknowledging the vital role of the mind in athletic success. By integrating NLP techniques into sports psychology, practitioners can provide athletes with a well-rounded training program that targets mental resilience, focus, and self-belief alongside physical conditioning.
2. **Unlocking Untapped Potential:** Athletes often possess untapped mental resources that can significantly impact their performance. Understanding the role of NLP in mental training allows athletes, coaches, and sports professionals to tap into these resources and harness their full potential. By applying NLP practices, individuals can overcome mental barriers, enhance confidence, and develop effective strategies for self-motivation and goal attainment.
3. **Optimal Mental and Physical Well-being:** Mental and physical well-being are interconnected in sports, and neglecting either aspect can hinder an athlete's performance. The study on mental training with NLP practices emphasizes the importance of maintaining optimal mental and physical well-being for athletes. By incorporating NLP techniques, athletes can cultivate resilience, manage stress, regulate emotions, and promote relaxation, thereby improving their overall well-being and performance outcomes.
4. **Performance Under Pressure:** Sports often involve high-pressure situations, where athletes' ability to perform at their best can be compromised by anxiety, self-doubt, or distractions. The study of NLP techniques provides athletes with effective tools to manage pressure, stay focused, and perform under demanding circumstances. This knowledge empowers athletes to maintain composure, make better decisions, and deliver their optimal performance in crucial moments.
5. **Mental Health Support:** Mental health is a critical aspect of overall well-being, and athletes face unique psychological challenges in their pursuit of excellence. Understanding the role of mental training with NLP practices helps to identify and address mental health concerns within the sports context. NLP techniques can aid in stress management, emotional regulation, and self-care, providing athletes with valuable support for their mental health and contributing to their long-term well-being.
6. **Transferable Skills:** The knowledge gained from studying the role of mental training with NLP practices extends beyond sports and has applications in various domains of life. NLP techniques, such as effective communication, goal setting, and self-motivation, can be utilized in academic pursuits, professional careers, and personal relationships. Sharing this knowledge with a wider audience enables individuals to enhance their overall performance and well-being in different areas of life.

Importance of Neuro-Linguistic Programming (NLP) in Athletes

The application of NLP techniques in the context of sports has gained substantial recognition due to its potential to unlock untapped mental resources and enhance athletic performance. The following aspects highlight the importance of NLP in athletes:

1. **Mental Resilience and Focus**
NLP equips athletes with tools to develop mental resilience, enabling them to overcome setbacks, manage stress, and maintain focus under pressure. By employing techniques like anchoring, reframing, and visualization, athletes can cultivate a positive mindset, boost confidence, and effectively navigate challenging situations.
2. **Effective Goal Setting and Motivation**

NLP provides athletes with structured methodologies for setting meaningful goals, creating compelling visions, and developing effective action plans. By aligning their subconscious mind with their desired outcomes, athletes can enhance motivation, increase commitment levels, and achieve optimal performance.

3. Enhanced Communication and Team Dynamics

NLP techniques foster improved communication skills, enabling athletes to establish stronger connections with teammates, coaches, and support staff. Clear and effective communication enhances teamwork, cohesion, and collaboration, leading to a more positive and productive sporting environment.

4. Performance Optimization

NLP practices help athletes optimize their performance by identifying and modifying limiting beliefs, fears, and negative thought patterns that may hinder their progress. Through techniques such as pattern interruption, anchoring positive states, and reprogramming the subconscious mind, athletes can unleash their full potential and achieve peak performance states.

NLP sports psychology helps to influence the human mind in such a way that it somehow starts to manage the internal states of the mind. The state of mind of the individual is an essential factor in bringing out his or her best performance. A lot of sports performers spend a lot of their time focusing on improving their fitness and technical ability and often the mental element is neglected, even at world class level. *NLP for sports* gives a coach the authority to stimulate certain states in the players mind. Invoking of states can help bring out the best in a player. Coaches generally know their players very well and therefore have an idea about what is the best thing to bring out the peak performance in a player. Especially when the player is having the low self-esteem, abilities always play very low, and belief makes them feel they cannot achieve anything. Their brain unconsciously keeps on comparing with the rich and socially popular players. With the help of NLP visualization, the self-esteem of the players increases due to the positive picture of self. The positive picture of the player influences the players brain neuron and shows the effect on the physiology of the players with high self-esteem, this will turn up the confidence of the player, in improves the performance of the players (Veerender, 2017). Among sport performers and coaches, NLP visualization is a popular and well-accepted strategy for enhancing various aspects of performance. The importance of this strategy is reflected in anecdotal reports of successful athletes. For example, Ronaldinho, a midfielder for FC Barcelona and one of the world's best footballers, eloquently described his use of imagery before the World Cup in 2006 in an article appearing in the New York Times Sports Magazine: physical practice, for the acquisition and performance of motor skills (for reviews. See Driskell et al., 1994; Jones & Stuth, 1997). Effect sizes reported in the three different meta-analyses carried out on this literature have ranged from small (0.26; Driskell et al., 1994) to large (0.66; Hinshaw, 1991) in magnitude.

Methodology

The aim of the study was to investigate Study the positive effect of NLP exercises to improve the confidence and belief on self, which helped the player to give the best performance in the stress full situations. A case study method was used to for the present study. The sample consisted of 6 sports personnel of Cricket, Tennis, Shuttle Badminton and 3 athletes (runners). Pre-post research design was used to study the efficacy of NLP on mental skills, confidence and Cognitive restructuring (replacing unhelpful images with helpful images, thought challenging, positive statements, and behavioral rehearsal).

Case No.1

Cricketer

He is an 18-year-old cricket player who struggles with negative thoughts whenever he steps up to bat in competitions. His mind fills with images of being clean-bowled, and the mocking laughter of his friends and the smug looks of his competitors only worsen his anxiety. He begins to believe that he is worthless, incapable of playing well, and that his techniques are ineffective. Adding to his difficulties, his family cannot afford to provide him with proper coaching due to their low income, and he feels marginalized in society.

Responding to these negative thoughts, he experiences anxiety, and these unhelpful thoughts undermine his self-esteem and distract him from focusing on the game. Instead, he finds himself consumed by thoughts of survival and engages in internal battles, causing him to lose concentration. As a result, he struggles to stay at the crease for not more than two or three overs, a pattern that has repeated itself more than ten times. The total team was unhappy for his poor performance.

Case No.2

Tennis Player

A teenage tennis player of 16 years old, during practice matches with his seniors and coaches, he consistently outperforms, instilling confidence that he can excel in competitions. However, when it comes to tournaments, he consistently underperforms, leaving his coach, parents, and peers puzzled by his unexpected decline. Through assessments with sports anxiety and self-esteem tools, it became evident that he struggles with low self-esteem.

During tournaments, automatic thoughts of his poor performance, as well as his appearance and skin color, overwhelm him. Seeing a handsome opponent exacerbates his feelings of inadequacy, causing him to lose trust in his skills and believe he cannot compete successfully against anyone. These negative thoughts spiral, leading to further losses in matches.

Case No.3

Shuttle Badminton Player

A shuttle badminton player, competing at the state level, consistently finds himself losing in the final match of tournaments. Despite winning the initial match against his opponent, he is plagued by intrusive thoughts of defeat and sadness. These thoughts are intertwined with memories of his broken relationship with his girlfriend, a result of parental pressure. The player's personal struggles have become public knowledge among the other players. Furthermore, the sight of a familiar face in the audience adds to his feelings of guilt. As a result, he consistently loses the subsequent matches, leading to repeated disappointment in tournaments.

Case No.4

A National-level Runner

A national-level runner with an impressive track record in state-level competitions faces challenges when competing against high-level performers in finals. Specifically, during the 200m race, the athlete encounters difficulties after crossing the 100m mark. His thigh muscles tighten, causing immense stress and hindering his ability to accelerate. Despite his intention to push his body forward, he struggles to maintain pace, ultimately leading to poor performance and loss in national-level competitions. The athlete grapples with sports anxiety, particularly

after the 100m mark, as competitors begin to overtake him. Consequently, he becomes distracted, frequently looking around him while running towards the finish line.

What is NLP (*Neuro-linguistic Programming*) in Sports

In sports there are many ways that NLP (*Neuro-linguistic programming*) can be used to optimize genetic, fitness and technical abilities. NLP is often making the difference. NLP allows people to learn and adopt the strategies, techniques and physiology used by our sporting role models to achieve excellence often in a fraction of a second. By using NLP techniques in sports we literally train people to be able to go into 'flow states' to consciously enter states of peak sports performance as and when needed. You can use NLP to maintain the motivation to train so as to take your skill sets to the next level, you can learn to "get over" mistakes and to learn from errors rather than dwell upon them and you can learn to have the confidence to compete to the best of your ability. Whether you are an aspiring Sachin, Sania Mirza, Tiger Woods, Paula Radcliffe, Lewis Hamilton, David Beckham or someone who plays sports simply for fun NLP is used by people even if they do it consciously or unconsciously. It will either be used against you or you can learn to use it for you and when you learn to use NLP with purpose you can really begin to play your sports at a new level.

NLP is often proposed as a study of the way in which human beings structure their perceptions, it creates a framework that can be used to analyze study, reprogram, and program a person's behavior, lifestyle and attitude. Body posture, breathing, gestures towards the eyes, ears, body, eye movements and language patterns are all elements that are used to trigger the unconscious mind in NLP. High-achievers and peak performers think, act and feel differently from average people.

NLP can teach to change negative thinking to positive, stop self-limiting thinking patterns, increase energy, remove mental blocks, powerful visualization techniques, drop unwanted habits, create instant rapport, improve communication, remove unwanted, negative emotions and to create smart learning and retention strategies. NLP sports psychology is based on the concept of bringing out the peak performance in an individual by improving their coordination and mental concentration. NLP for sports utilizes the five senses which are *auditory, visual, kinesthetic, gustatory and olfactory senses*. By utilizing these five senses to influence the mind this can help to enhance the performance of the individual. NLP for sports provides a method where a person can perceive the world around them in a certain way and with the use of sensory based language it is the best way to influence the human mind. When it comes to teamwork and coordination in sports, use of certain words that represent a sensation can give sports people that extra edge that is required to win. NLP sports psychology helps to influence the human mind in such a way that it starts to manage the internal states of the mind. The state of mind of the individual is an essential factor in bringing out his or her best performance. A lot of sports performers spend a lot of their time focusing on improving their fitness and technical ability and often the mental element is neglected, even at world class level. Invoking of states in the mind can help bring out the best in a player. Coaches generally know their players very well and therefore have an idea about what is the best thing to bring out the peak performance in a player.

How do I Visualize?

This process involves all your senses and be as specific as you can. You want to choose your goal and imagine everything related to it - the situation, time, place, people you're with, environment, emotions, what you're wearing - everything. Imagine what you can smell when you perform, what you see, the noises around you, the feeling deep in your heart,

and the taste in your mouth. You can do this with eyes closed and intense focus. Be as specific as you can and you'll essentially trick your brain into it, eventually finding yourself unconsciously engaging in behaviors that promote what you want to happen in reality.

Intervention Techniques - Balloon Technique

The below techniques were used:

- Make sure the atmosphere must be very quiet and comfortable, if possible, make the ambience serene and quite. Ask the sports person to sit comfortable in comfortable chair or sit comfortable on the ground if it is in the field. Ask the player to close the eyes and follow the suggestions.
- Breathe deeply through nostrils and leave the air through mouth for 5 times.
- Now visualize your picture with the stress/anxiety/disturbance undergoing when in the ground
- Ask player to visualize in color picture with low self-esteem /disturbing thoughts, make the player perceive the sounds, smells on the field.
- Visualize all negative thoughts, anxious thoughts and low esteem feelings one by one in the brain and keep them in a line like books in a bookshelf.
- Ask the player to visualize a specially designed balloon of his choice color, the special balloon has feature of infinite elasticity, has ability to elongate to maximum size
- Give the suggestions to the player to blow the air into the balloon with mouth to inflate the balloon. Slowly the balloon starts inflating slowly the size of the balloon increases.
- Visualize all the negative, anxious thoughts, and low self-esteem thoughts sinking to the bottom of the brain. Then, allow these thoughts to enter the client's mouth through the roof of the mouth. Next, exhale the air in the mouth, expelling all the negative, anxious, and low self-esteem thoughts into the balloon. As you do so, observe the balloon gradually expanding in size. All the thoughts in the brain enters into the balloon then the brain experiences fresh, relief from the burden, experiencing a comfortable feeling.
- Visualize you are tying the mouth of the balloon with a thread tightly.
- Visualize you are leaving the balloon into the air, slowly the balloon is going up going up into the sky away from you, it is appearing very small in the sky and then disappear into the sky
- Visualize how you look with better performer and face is glowing with confidence (with positive thoughts +energetic+ skill full sport person).

- Visualize you are giving the best performance then all your friends are congratulating you. Enjoy this wonderful situation.
- Then slowly open your eyes...

If possible, ask the player to write down the experience. This was practiced at least 4 weekdays to become a reality.

Results and Discussion

In general, scientific literature in sport psychology has proven that NLP techniques supported athletes mental skill in competitive situations (Sin et al., 2019; Shivata, 2017) and improve the performance of young and adult athletes (Boughattas et al., 2017, Grosu et al., 2013). NLP help athletes in reducing anxiety and emotional control. The results shows that there was an improvement in each sports personnel.

Case No. 1

Cricketer

He struggles with an abundance of negative thoughts, such as feeling inferior to opposing players who receive better training, are financially well-off, and possess attractive features or fair complexion. When facing a well-groomed and affluent opponent on the cricket pitch, he is often plagued by mental images of failure and being dismissed without scoring ("duck out").

However, after participating in a session, not only does he manage to spend a prolonged period at the crease, but he also scores 85 runs. Furthermore, his self-esteem experiences a boost, and he becomes more comfortable with himself. He learns the skill of focusing on the game rather than dwelling on negative thoughts, utilizing self-talk to cope with the demands of the game during stressful situations. He asserts that this newfound ability to concentrate has significantly enhanced his performance on the field.

Comparing his self-esteem before and after the sessions, there is a noticeable increase in self-confidence following the intervention.

Case No. 2

Tennis player

During play, he is often plagued by negative thoughts, comparing himself unfavorably to opponents who appear good-looking, dressed in expensive attire, driving luxurious cars, and maintain a superior diet. He perceives that everyone receives them with admiration and support, leading him to believe he will lose the match despite his proficiency in all aspects of the game - forehand, backhand, rallies, and more. Remarkably, he even surpasses his coach and senior players during practice sessions, yet consistently falters in actual matches, often being eliminated in the second round.

Following intervention, he gains a newfound appreciation for his skills and fitness level. He internalizes positive and instructional suggestions, thereby improving his performance and subsequently achieving victory in tournaments.

Case No. 3

Badminton Player

As a state-level player, he possesses all the necessary skills to outmatch his opponents in final matches. Consistently, he triumphs in the first match, but thereafter, he succumbs to overwhelming pressure. His subsequent losses stem from an excessive fear of failure, which triggers negative imagery in his mind, causing his body to react accordingly. During these matches, thoughts of his father's financial struggles flood his mind, leaving him feeling helpless and causing his self-esteem to plummet.

After participating in sessions aimed at changing the negative images of self to the best performer with the help of visualization, creating the new neuron paths with better self-esteem as suggested by Hidayat & Budiman (2024), he experiences significant improvement. Armed with the ability to withstand pressure, he begins to envision positive outcomes and utilizes his skills effectively, resulting in victorious matches.

Furthermore, to bolster self-esteem, players are assigned a small project aimed at socializing and interacting with senior players who have competed at national and international levels. These interactions provide invaluable insights into the real-life experiences of successful athletes and encourage players to shift their focus from negative emotions to factual realities. Emphasis is placed on recognizing and appreciating the player's exceptional skills, as evidenced by certificates and prizes awarded by coaches and organizations.

Players are engaged in a 30-day training program consisting of 10 sessions, each session duration will be 30 minutes, if they practice the duration will be 10 minutes. Additionally, they are encouraged to practice visualization techniques three times a day-morning, afternoon, and before bedtime-for the following 30 days, while documenting their progress towards their goals.

The above real-life stories are very encouraging and useful to all the coaches and sports persons.

Table 1

Automatic Negative Thoughts (ANT)- NLP visualization

<u>player</u>	ANT	Physical sensations		NLP	<u>Result</u>
cricketer	Oh! I am gone, I can't play this ball	Lost control on my focus and body become less energetic	<u>A</u> <u>F</u> <u>T</u> <u>E</u> <u>R</u>	Skilled images of self -which filled in every neuron of the cricketer that made him confident,	Stay for long time and able to focus to hit the balls.

Tennis player	Depressed and negative thoughts are ruling him	Totally weak shivering.	<u>N</u> <u>L</u> <u>P</u>	Negative feelings when under pressure was removed new best version of self is created.	Able to move fast in the court and hit the balls with force.
Badminton player	No body can beat me, oh! This thought going to lose my second game...what my girlfriend think about me.	Feeling bad, memory of girl friend made him feel hard to breath, sweating.	<u>S</u> <u>E</u> <u>S</u> <u>S</u> <u>I</u> <u>on</u>	All negative thoughts about self has been replaced with skillful image of the player, that made him to be successful.	Able to feel comfortable, breathlessness and Sweating stopped.

Conclusions

Sports psychologists have long recognized the importance of this NLP visualization method and being in the present in helping athletes achieve their potential (see table). Everyone who plays competitive sport or who competes at a state, national and international level faces adversity and obstacles to achieve the desired success like physical pain, poor conditions, strong opponents, negative thoughts, comparisons, assumptions, expectations and fatigue. The human brain is in a constant state of growth, change, and adaptation. As we engage in different experiences throughout our lives, our brain strengthens and weakens neural pathways accordingly. These experiences don't always have to be physical; they can be imaginary and exhibit a similar response in the brain. Visualizing the scenario of succeeding in a difficult situation or achieving your goals can activate the same areas in your brain as physically experiencing this scenario. This promotes neuroplasticity - the formation and strengthening of the pathways in your brain related to your success - and in turn reduces your stress, makes you more likely to succeed, and gives you a surge of motivation. Visualization can create the positive self-image, and it can help to develop the confident athletes, which in turn helpful to give their best in competition (Cutton & Landin, 2007). The first finding of this study showed that NLP techniques have improved players and athletes' mental skills. This finding is consistent with studies that assessed the effectiveness of NLP techniques on increasing mental health and all of its parameters such as anxiety, sports self-awareness, and athletic self-esteem, the ability of goal setting and being aware of the results, decision-making power, focusing on attention emotional growth, effective communication skills, and motivation

Perhaps, one of the possible reasons for the effectiveness of NLP techniques on improving players mental skills is to increase their ability to set specific goals and their commitment to achieve them. According to the Locke's Goal-Setting Theory, more ambitious, difficult, and specific goals with time constraints lead to more performance improvement. As long as an individual accepts his clearly identified goals, he has the ability to attain them.

Some studies (Ranganathan et al., 2004) even suggest significant increases in muscle strength after mental training. Participants who imagined their muscles contracting for 11 minutes a day, five days a week, over the course of a month were twice as strong as those who did not. This has many implications on athlete performance and stroke/concussion recovery.

This NLP visualization affect determines his state-sport confidence level at a certain moment. When an athlete thinks about his abilities or predicting the result of a next competition, cognitive processing will develop a belief due to NLP visualization. Our thought has ability for captivating us in the world of imagination and incomplete information's. Our language can be a clear representative of our thinking process. In this research we figure out the balloon technique can be a useful tool for increasing athletic self-awareness and cognitive controlling that has effect on state-sport confidence. The study recommends that NLP visualization can be used in sport psychology to help the players to enhance their mental skills like, awareness about the sport, intention to give the best performance, increased self-esteem & confidence to perform better in highly pressurized situations. The awareness must be given to all the coaches and players about this NLP tool to enhance the performance of the players.

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Impact of Female Sports Celebrities on Female University Students' Engagement in Competitive Sports at Nigerian University

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Abstract

Engagement in physical activities is crucial for individual well-being, offering significant health benefits, especially for women. The prevailing notion suggests that women who engage in regular physical exercise experience superior health outcomes compared to those who are inactive. Although sports seem to be predominantly male-oriented, potentially deterring female participation in competitive sports, this study aims to explore how the achievements and lifestyles of female sports celebrities can encourage competitive sports involvement among female undergraduates at the University of Ilorin.

The study involved 1,310 female students actively participating in university sports. Utilizing a purposive sampling method, the entire population was selected for the research. Data were collected using a validated structured questionnaire with a reliability coefficient of .75. Data analysis employed inferential statistics, of Chi-square test, at a significance level of 0.05.

Results indicated that the achievements of female sports celebrities (cal. R-value 68.076 > p-value 0.001) and their lifestyles (cal. R-value 69.725 > p-value 0.00) significantly enhance sports participation among female undergraduates. Consequently, the study concluded that female sports celebrities play a pivotal role in promoting sports engagement among female undergraduates at the University of Ilorin. It is recommended that female sports figures persist in achieving excellence in their respective sports and uphold high moral standards to serve as positive role models for undergraduates and the wider community.

Keywords: Female sport celebrities, Achievement, Idol, Lifestyle, Mentor

Introduction

Engagement in athletic activities constitutes a typical aspect of the educational experience, offering enjoyment and excitement. Certain sports, such as Physical Education, are mandated within the school curriculum, while others remain elective, pursued during leisure periods or after-school sessions. The significance of sports in promoting total health

encompasses physical, psychological, and emotional dimensions. Although there has been a global increase in female sports participation, research indicates a disparity, with female students generally exhibiting lower engagement in physical activities than their male peers (Edwards & Sackett, 2016). Factors impeding women's involvement in sports include time limitations, inadequate access to facilities and equipment, and prevailing cultural norms and expectations (Orhan, 2020). Additionally, gender stereotypes and cultural conventions may serve as deterrents to women's sports participation (Rasmussen et al., 2021). It is imperative to acknowledge that women's involvement in sports is influenced by variables such as age, socioeconomic background, and cultural context, which may include religious beliefs.

A study by the Women's Sports Foundation (2019) indicates that participation in sports correlates with a decrease in unintended pregnancies among schoolgirls. Additionally, these student-athletes tend to achieve higher academic performance and graduation rates. The study also reports elevated confidence and self-esteem levels, alongside reduced depression rates. Furthermore, girls maintain a healthier body image and enjoy greater psychological well-being compared to their non-athlete counterparts. To address the gender disparity in sports participation, leveraging the influence of prominent female athletes, who have reaped substantial benefits from competing at high levels, may serve as a potent catalyst for change.

A celebrity can be described as an individual who commands public attraction and extensive media attention due to the special skills they exhibit. A sports celebrity is an individual who has achieved significant recognition and public approval through their sporting achievements. Such figures, if they are ladies can significantly impact the involvement of women in sports thereby functioning as inspirational figures that encourage female participation and the pursuit of athletic ambitions.'

Celebrities exercise significant influence on the self-perception of youths. Sports celebrities encourage youth development particularly in sports, fostering a desire among individuals to engage even at competitive stages, thereby broadening the appeal of sports participation (Rasmussen et al., 2021). These sports icons are essential in influencing youths towards sports engagement. Additionally, observing successful female sports figures allows women to foresee a place for themselves within the sports circle, fostering a sense of inclusion. This feeling of belonging can inspire women to partake in sports and aspire to professional athletic careers, being reassured by the presence of their peers. Moreover, female sports celebrities can change gender norms by excelling in sports typically dominated by men, thereby inspiring other women to participating in competitive sports.

The recent international achievements of Nigerian female athletes may serve as an inspiration for young girls with aspirations in competitive sports. Notably, the Nigerian national team's performance at the 2022 Commonwealth Games in Birmingham was remarkable, with female athletes securing all twelve gold medals for Team Nigeria. The prominence and acclaim of athletes such as Tobi Amusan, who set a new world record in the 100m hurdles at the 2022 World Athletics Championships in Oregon, USA, and her outstanding performance in Jamaica where she was rated the fastest woman in the world, and Asisat Oshoala, the Super Falcons' striker who was awarded the 2022 African Women's Footballer of the Year and nominated for the 2022 and 2023 Women's Ballon d'Or, have led to lucrative endorsement deals due to their marketable image and brand. The impact of these athlete role models is profound, influencing purchasing intentions and behaviors, as evidenced by Haroon, Haq, and Najmonnisa (2015). Additionally, emerging young female Nigerian athletes are making significant strides on the continent and globally. At the 2023 African Athletics Championships in Ndola, Zambia,

athletes such as Tina Godbless won gold in the 100m U20, Opeyemi Oke Deborah in the 400m U20, Praise Oshiokpu in the Triple Jump U20, Faith Okwose in the 100m U18, and Praise Djoma Oghenefejiro in the Triple Jump U18. Furthermore, Ruth Usoro clinched a gold medal in the Triple Jump at the Crok/Crofoot event in Lubbock. Nigeria's performance in the 2024 African Games was an all-women affair. The ladies took a total of 71 medals of the 121 medals won by Nigeria while three were in mixed events. Out of the 47 gold medals won by the country, the ladies clenched 47 excluding the mixed events. These achievements underscore the potential of Nigerian female athletes to inspire the next generation of sports talent.

Statement of the Problem

The pervasive influence of female sports celebrities has been a subject of considerable interest in the context of sports participation at the university level in Nigeria. This phenomenon presents a unique opportunity to explore the extent to which these role models affect female students' engagement in competitive sports within a Nigerian university setting. Despite the growing visibility of women in sports, there remains a significant gap in understanding the specific factors that motivate female students to partake in competitive sports activities. The research will delve into the dynamics of celebrity influence, examining whether the achievements and public profiles of female sports icons can translate into increased sports participation among female students. This inquiry is pivotal in addressing the broader issue of gender disparity in sports and could potentially inform strategies to encourage a more inclusive sports culture at the tertiary education level. The statement of the problem, therefore, centers on identifying and analyzing the factors that contribute to the influence of female sports celebrities on the sports participation rates of female students at a Nigerian university.

Research Questions

These questions were raised to guide the study:

1. To what extent do the achievements of sports celebrities influence the participation of female undergraduates at the University of Ilorin in competitive sports?
2. How does the lifestyle of sports celebrities affect the engagement of female undergraduates at the University of Ilorin in competitive sports activities?

Research Hypotheses

These hypotheses were formulated and tested in this study:

1. Sport Celebrities' achievement will not significantly influence participation in competitive sports among female undergraduates of University of Ilorin.
2. Sport Celebrities' lifestyles will not significantly influence participation in competitive sports among female undergraduates of University of Ilorin.

Methodology

This investigation employed descriptive research design of survey type. A population of 26,670 female undergraduates was identified in University of Ilorin, Nigeria, (University of Ilorin, Academic Support Service, 2023). From this population, 1,310 individuals who were recognized as regular participants in sporting activities were all selected for the study. A validated and structured questionnaire was used for data collection. To ascertain its reliability, a test re-test method was utilized. Initially, twenty questionnaires were distributed at Kwara State University, Malete, which is not within the primary study area. The distribution was repeated after a fortnight. An analysis of the results was conducted using the Pearson Product

Moment Correlation, yielding a reliability coefficient of .75. For hypothesis testing, inferential statistics of chi-square test were applied at an alpha level of 0.05.

Results

Sport Celebrities' achievements and the promotion of sports participation among female undergraduates of University of Ilorin.

Table 1: *Chi-square analysis on Sport celebrities' achievement and promotion of sport*

S/N	ITEMS	SA	A	D	SD	ROW TOTAL	Df	CAL. VALUE χ^2	CRIT. VALUE χ^2	REMARK
1	Sport celebrities receive many awards and trophies which motivate female undergraduate students to participate in sport	340	255	60	0	655				
2	Sport celebrities' fame motivates female undergraduates to also want to be like them	51.90	38.90	9.20	0%					
3	Sport celebrities are wealthy and well respected, and this motivate female undergraduate students to participate in sport	320	220	100	15	655				
4	Sport celebrities are fit and healthy and they promote female participation in sport	48.85	33.59	15.27	2.16					
	Column Total	290	250	100	15	655				
		44.27	38.17	15.27	2.16					
		260	160	180	55	655				
		39.70	24.42	27.48	8.40					
		1210	885	440	85	2625	9	68.076	16.919	Ho Rejected

@ 0.05 alpha level

The results presented in Table 1 indicates a chi-square (χ^2) statistic of 68.076, which exceeds the critical value of 16.919 at 9 degrees of freedom with an alpha level of 0.05. This significant discrepancy leads to the rejection of the null hypothesis, which suggested that the achievements of sports celebrities would have a considerable impact on the sports participation of female undergraduates at the University of Ilorin. This result suggests that there is a statistically significant relationship between sports celebrities' achievements and increased sports participation among the studied group. Therefore, it can be inferred that the achievements of sports icons may actually serve as motivational factor for female undergraduates to engage more actively in sporting activities. This finding highlights the potential influence of role models in shaping sports culture and participation within academic settings.

Sport Celebrities' lifestyles and the promotion of sports participation among female undergraduates of University of Ilorin.

Table 2: *Chi-square analysis on Sport celebrities' lifestyle and promotion of sport*

S/N	ITEMS	SA	A	D	SD	ROW TOTAL	Df	CAL. VALUE x ²	CRIT. VALUE X ²	REMARK
1	Sport Celebrities visit the training centers often in which I imitate them by also participating in sport	415	145	75	20	655				
2	Sport Celebrities promote sport participation as they serve as coaches to the young athletes	63.36	22.14	11.45	3.05					
3	Sport celebrities that are highly disciplined promote females' interest in sport	285	250	90	30	655				
	Sport celebrities that are forbade substance abuse promote sport participation among female undergraduates' students	43.51	38.17	13.74	4.58		9	69.725	16.919	Ho Rejected
4		270	215	140	30	655				
	Column Total	41.22	32.82	21.38	4.58					
		280	280	85	10	655				
		42.78	42.78	12.97	1.53					
		250	178	78	18	524				

@ 0.05 alpha level

Table 2, which defines the outcomes of the chi-square analysis, reveals that the calculated chi-square statistic of 69.725 is significantly greater than the critical threshold of 16.919, given 9 degrees of freedom and an alpha level of 0.05. This substantial deviation necessitates the rejection of the null hypothesis which states that there is no significant influence of sports celebrities' lifestyles on the participation in competitive sports among female undergraduates at the University of Ilorin. The nullification of the hypothesis establishes a substantive correlation between the observed variables. The implications of this study highlight the considerable role sports celebrities play as role models, fostering athletic participation within the studied group.

Discussion of Findings

The findings presented in Table 1 reveals a statistically significant association between sports celebrities' achievements and increased sports participation among female undergraduates at the University of Ilorin. This correlation suggests that the accomplishments of sports figures may indeed serve as a motivational factor for this demographic to engage more actively in sports activities. This discovery shows the potential influence of role models in shaping sports culture and participation within academic settings.

Not only does the achievements of sports celebrities enhance female participation in sports but also promote the health and wellbeing of female therefore achieving the Sustainable Development Goal (SDG) 3 among female undergraduates. Based on the 79.86% positive opinions of undergraduates in university understudied, the sports celebrities have motivated the students through their awards (90.80%), fame (82.44%), wealth & commanding respect (82.44%), and their high fitness and health status (64.12%), to become active sports participants whereby many have become athletes as well as regular recreators or sports for all participants. The research question that state that “to what extent do the achievement of sports celebrities influenced the participation of female undergraduates in University of Ilorin in competitive sports?” has proved through the responses of 90.80% of the imperative role of sports celebrities in increasing female participation for gender equity. This finding shows that there is need to recognize sports celebrities within the University to serve as ambassadors who might create greater awareness through recognition, university awards and dinners to encourage more female participation in sports either for health and fitness as athletes. The Law Press Organization (2024) states that there has been a 40% increase in female athletes who participate in both inter and intra-school competitions in University of Ibadan because of the influence of elite athletes of the institution.

An analysis of Table 2 reveals a statistically significant outcome ($p < 0.05$), indicating a substantial deviation from the expected results. This deviation necessitates the rejection of the null hypothesis, which states that sports celebrities' lifestyles have no significant impact on the likelihood of sports involvement among female undergraduates at the University of Ilorin. The rejection of the null hypothesis suggests a meaningful correlation between the observed variables.

The findings indicate a significant association between sports celebrities' lifestyles and the likelihood of sports participation among female undergraduates. This correlation implies that sports celebrities may play a significant role in promoting athletic participation within the academic institutions. The findings highlight the importance of sports celebrities as potential role models, inspiring and motivating female undergraduates to engage in sports activities as reflected by the positive response of the majority (81.67%) of the participants. This is in line with the opinion of Werther (2016) which says that participation of female athletes in prominent sports competitions, such as the Olympic Games, reconfigures public perceptions regarding women's capabilities. The achievement of these elite sportswomen disabused the misconception that sports are not suitable for females within this conventionally male-dominated field. An Olympic victory by a female athlete not only elevates national pride but also embodies the potential achievements of all girls and women (Meier, 2015). At the tertiary education level, proficient and accomplished female coaches can significantly encourage women's engagement in sports (Düsenberg et al., 2016).

Empirical research has delved into the impact of sport celebrities on women's sports involvement. Gill and Malhotra (2017) discovered that female athletes, who are also sport celebrities, can exert a positive influence on women's sports participation. Their findings suggest that exposure to successful female sport celebrities correlates with increased sports activity and empowerment for women to achieve their aspirations (Gao et al., 2018). Research conducted by Smith, Johnson, and Anderson (2020) found that female elite athletes advocating for a balanced lifestyle, encompassing consistent physical activity and nutritious dietary patterns, can exert a favorable impact on young females' perceptions of fitness and wellness. These findings align with those of Johnson, Anderson, and Thomson (2020), which suggest that female athletes committed to healthful practices, including routine exercise (85.50%), avoiding substance use (85.56%) and balanced nutrition, have a higher likelihood of motivating young girls to partake in athletic activities.

Conclusion

The research indicates that the achievement and lifestyle habits of sports celebrities, encompassing consistent exercise, adequate nutrition, and diligent self-care, have a beneficial impact on the perceptions of young females regarding physical activity. This positive influence extends to inspiring an increase in sports participation among female undergraduates.

Recommendations

The study suggests that it is imperative for sports celebrities to consistently exhibit exemplary conduct within their professional career, as such behavior exerts a favorable influence on female undergraduate students. Furthermore, it is essential for media outlets to consistently highlight the positive aspects of sports celebrities' lifestyles, considering that female undergraduates frequently engage with these figures through social media platforms. Additionally, sports celebrities who serve as role models are encouraged to establish mentorship opportunities for aspiring female athletes, which is anticipated to enhance participation in sports. Lastly, the involvement of sports celebrities in collegiate sports initiatives, including coaching and the facilitation of competitions, awards and dinners are recommended to foster increased sports engagement among female undergraduate students.

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