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ATTITUDE OF VOLLEYBALL CLUB ATHLETES TOWARDS THEIR CIRCUIT TRAINING IN AWKA, ANAMBRA STATE NIGERIA

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ABSTRACT

The attitude of volleyball club athletes towards circuit training was investigated. The purpose of the study was to determine the direction of the athletes towards circuit training and the extent to which their attitude is influenced by gender, playing experiences and playing positions of the athletes. Three research questions were answered and two null hypotheses were tested at .05 level of significance. A sample of 25 volleyball athletes (Female 12; Male: 13) from a population of 220. The instrument titled, Volleyball Athletes' Circuit Training Attitude Questionnaire (VACTA_Q), was designed by the researcher and validated by two experts in the Department of Human Kinetics and Sports Science and one in the Department of Educational Foundations of Nnamdi Azikiwe University, Awka. The SPSS software was used for analysis of the data. Mean and standard deviation were used for answering the research questions. Hypotheses one and two were tested using t-test for two independent samples. The finding was that the athletes had positive attitude in the majority of the statements and generally had slight positive attitude. It was also found that gender, years of playing, and playing positions did not have significant influence on the athletes' attitude towards circuit training. It was recommended on the basis of the findings that Volleyball Club managers in the area of the study should re-examine different exercises in their circuit training to ensure that they are relevant in enhancing the performance of the athletes in order to improve attitude of the athletes.

Keywords: Volleyball, Volleyball Club athletes, Circuit training

Introduction

Sport in the modern world is seen as a field that is steadily increasing in value because of its economic benefits and individuals' need for quality and healthy life. The importance of sports and games is being increasingly recognised in Nigeria, from both the educational and social points of view. More and more funds are being allocated for encouraging sports in schools, colleges and universities. In fact, sports have become an essential part of the school curricula. Sport is a social phenomenon because it helps the society to develop all necessary traits of personality required for the development of an individual. Consequently, sport fields are located in every city and locality. People of different ages are also seen engaging in sport activities. People who participate in sports activities in a regular program contribute to their physiological, physical, psychological and social development (Mishra, 2020).

Sport can be described as a way of life and a means to achieving and maintaining healthy living. According to World Health Organisation (WHO), health is a condition of

social, mental and physical well-being of an individual (Aspen institute 2019). There are different definitions of sport in literature but most of them see sport as human activity, game, or competition that involves physical exertion and skill that is done according to rules either for enjoyment or as a job or for both purposes. Specifically, Nwosu (2020) defines sport as a human activity involving physical exertion and skill as the primary focus of the activity, with elements of competition or social participation where rules and patterns of behaviour governing the activity exist formally through organisations and is generally recognised as sport.

Volleyball is a game played by two teams, usually six players on a side, in which the players use their hands to bat a ball back and forth over a high net, trying to make the ball touch the opponents' playing area before it can be returned. The sport was invented in 1895 by William G. Morgan, physical director of the Young Men's Christian Association (YMCA) in Holyoke, Massachusetts. Morgan called the sport "Mintonette" until Professor from Springfield College in Massachusetts noted the volleying nature of play and proposed the name "volleyball". The game later had a wide appeal for both male and female in schools, playgrounds, armed forces and other organizations in the Unites States of America. It was subsequently introduced in other countries, including Nigeria. Today volleyball is a highly competitive team sport found in the Olympics and national teams, and also popular in playgrounds. It is regarded as the most participated sport in the world by Ogbeide (2020). It is a team sport that relies on cooperation and coordination of the team to win. Volleyball clubs exist in different educational institutions and cities in Nigeria, including Nnamdi Azikiwe University, Awka.

Volleyball clubs play crucial role in skill development of players. They provide a platform for players to improve their skills and optimise their talents (Ross et al, 2015). Volleyball clubs offer environment that is conducive for skill development through provision of expert coaches, advanced training techniques and equipment, which help players improve their techniques, refine their strategies, and help develop their physical and mental strength. The players in a volleyball club are referred to in this study as volleyball club athletes.

The benefits of joining a volleyball club for athletes identified in literature (Ross et al, 2015). Joining a volleyball club can help the athletes to gain experience and exposure they need to improve their skills. The athletes can compete against other clubs and teams, participate in tournaments and championships, and represent their clubs at the national level. Volleyball clubs help athletes to build their confidence and self-esteem and provide valuable networking opportunities. They also foster a sense of community and teamwork among athletes to achieve common good. Furthermore, they enhance athletes' ability and help them develop life skills like leadership, communication and problem solving, which are 21st century skills. For volleyball athletes to improve their skills and become top players, they need off-court conditioning which is critical because volleyball is a high-intensity sport that relies on quick changes of direction, high jumps and swift, powerful hits.

Circuit training is a type of workout that involves rotating through a circuit of up to 10 exercises that target different muscle groups. It refers to how a workout routine is structured rather than a specific type of exercise. With circuit training, an athlete will complete each set of exercises for a certain number of repetitions, or times. Then, move to another activity for the same amount of repetitions or time with little or no rest in between. Because an athlete moves through the circuit of exercises relatively quickly, an entire circuit training session can usually be completed in only 30–45 minutes (Oliveira et al, 2019). Four types of circuit training identified by (Oliveira et al, 2019), are repetition circuit, timed circuit, completion circuit, and sport-specific circuit. **In repetition circuit**, each exercise in the circuit is performed for a certain number of repetitions (typically 10–15) before moving on to the next exercise; while in timed circuit, each exercise in the circuit is performed for a certain amount of time (typically 30–90 seconds) before moving on to the next exercise. Competition circuit requires that each exercise is completed for as many repetitions as possible within the given amount of time; while sport-specific circuit requires that each exercise is a drill used to improve certain movements involved in a specific sport, such as practicing jumps, kicks, turns, and tumbling skills for gymnastics. The volleyball sport-specific circuit training is the focus of this study. The playing position of volleyball athlete is also important. In volleyball, there are six players on the court for each team. Each player starts in a specific location, but these locations are not the same as the **player positions.** Player positions are setter, middle blocker, outside hitter, opposite hitter, defensive specialist, and libero. Player position is important in volleyball because one of most specific volleyball rule is rotation rule. Rotational order is determined by the team's starting line-up, and controlled with the service order, and players' positions, throughout the set (Đurković, 2008). Each player, with the exception of the libero, will rotate to each location in a clockwise manner before each serve but still maintain their positions. Considering player position is important in this study since there is dearth of information in literature on the attitudes of volleyball athletes towards circuit training.

Serious athletes devote hours to conditioning, and perfecting techniques for their particular sport, and practice. Attitudes of the athletes towards volleyball sport can therefore be positive, neutral or negative. Although it is true that physical training and inherent talent can take a volleyball athlete far, it is also necessary to maximise their athletic potential by having the right attitude, hence the need for this study.

Statement of the Problem

Despite the benefits of circuit training in enhancing athletes' performance and fitness levels, there is a dearth of specific research examining the attitudes of volleyball club athletes towards this training method. Understanding athletes' perceptions, preferences, and potential barriers regarding circuit training is crucial for designing effective training programmes to meet their needs and optimising their performance on the court. Furthermore, factors that influence their attitudes have not been empirically investigated to provide relevant data for management of behaviour of athletes in

volleyball club. The researcher is not aware of any current empirical study on this subject, hence the study investigated the attitudes of volleyball club athletes towards circuit training and factors that influence their attitudes towards participation in circuit training sessions.

Research Questions

1. What is the direction of attitudes of volleyball club athletes towards circuit training?
2. What is the mean difference between the mean attitudes towards circuit training scores of female and male volleyball club athletes?
3. What is the mean difference in attitude towards circuit training scores of volleyball club athletes based on their years of playing experience?

Hypotheses

The following null hypotheses also guided the study and were tested at 0.05 level of significance.

1. There will be no significant mean difference in attitudes towards circuit training of volleyball club athletes based on gender.
2. There will be no significant mean difference in attitudes towards circuit training of volleyball club athletes based on years of playing experience.

Research Method

This study adopted a survey research design. The plan specifies how data will be collected and analysed. Since the present study sought to determine the attitudes of volleyball club athletes towards circuit training, the design was considered to be appropriate for the study. The study was carried out in Awka, Anambra State. Awka is the capital of Anambra State in South East Geopolitical Zone of Nigeria. Population of the study consists of 220 volleyball athletes in the three volleyball clubs in Awka, Anambra State (Female: 113; Male: 107). The sample of study consists of 25 volleyball athletes (Female: 12; Male: 13), which constitutes 11.36% of the population. The instrument for data collection is a Volleyball Athletes' Circuit Training Attitude Questionnaire (VACTA_Q). The instrument was developed by the researcher through review of literature on attitude questionnaire construction and volleyball circuit training. The questionnaire consists of 26 items arranged in two sections, A and B.

Method of Data Collection

The questionnaire was administered on the spot to the selected athletes on their practice days in order to ensure high percentage return of the instrument. The completed copies of the questionnaire were collected by the researcher. Thereafter, the responses of the athletes were captured and organised for data analysis.

Method of Data Analysis

The data collected was analysed based on the research questions and hypotheses. Research questions one was answered using mean and standard deviation of the participants' responses. Hypotheses one and two were tested using t-test for two independent samples with the aid of Statistical Package for Social Science (SPSS).

Results:

Research Question One: What is the direction of attitudes of volleyball club athletes towards circuit training?

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Data for answering research question one was analysed using mean and standard deviation of responses of the Volleyball Club athletes for each of the attitude statements and the overall scale mean score and standard deviation. Attitude was then determined based on the criterion cut-off of 2.5 points, which is the midpoint between agreement and disagreement on the scale of 4-points. The total score for each item was obtained by multiplying frequency of each response option by its corresponding Likert scale score while the scale mean score for each item was obtained by dividing the total score by the 25 respondents. The result of the analysis is presented in Table 1.

Table 1: Mean and Standard Deviation of Volleyball Club Athletes' Responses on Attitude towards Circuit Training

S/N	Attitude Items (n=25)	Mean	SD	Direction
1.	I like participating in volleyball circuit training exercises.	3.68	0.48	Positive
2.	I like the training exercises because they help me build my strength.	3.52	0.51	Positive
3.	I dislike volleyball circuit training exercises because of the risks involved.	1.52	0.51	Negative
4.	I like circuit training exercises help boost muscular endurance.	3.36	0.68	Positive
5.	I enjoy volleyball circuit training exercises.	3.04	0.68	Positive
6.	I dislike the training exercises for they do not build my agility.	2.44	0.71	Negative
7.	I like the exercises because they help me play volleyball more effectively.	3.16	0.66	Positive
8.	I dislikes the training exercises are too strenuous for me.	1.92	0.76	Negative
9.	They are useful because they target movements in volleyball.	3.24	0.66	Positive
10.	I like circuit training for it fosters teamwork.	3.20	0.50	Positive
11.	If I have my way I will not take part in circuit training.	1.96	0.61	Negative
12.	I like the exercises because they target the sports specific activities.	3.36	0.49	Positive
13.	Different circuit training exercises and drills are boring.	1.92	0.49	Negative
14.	I prefer alternative approaches to circuit training.	2.28	0.74	Negative
15.	I dislike the exercise because they do not help me burn calories to lose weight.	1.84	0.75	Negative
16.	Circuit training helps me develop my volleyball skills.	3.16	0.69	Positive
17.	I feel the exercises are monotonous despite the variety of physical activities involved.	1.56	0.58	Negative
18.	I dislike the training because it does not target multiple aspects of fitness (e.g., endurance, strength & agility).	1.72	0.61	Negative
19.	Volleyball circuit training should not be all fun.	3.20	0.65	Positive
20.	I prefer the training directed by my coach to the one by a team mate.	2.84	0.69	Positive
	Average	2.65	0.62	Positive

Notes: Negative attitude=Mean<2.5; Positive attitude=Mean ≥2.5

Table 1 shows that the range of the volleyball athletes' mean scores is 1.52 to 3.68 and the standard deviations from 0.48 to 0. 76; while the average mean and standard deviation is 2.65 and 0.62 respectively. The Table shows that the athletes expressed positive attitude in 12 out of the 20 attitude statements and negative attitude in eight of the items. The athletes expressed negative feelings towards volleyball circuit training exercises because of the risks involved (Mean=1.52; SD=0.51), and that the exercises do not build their agility (Mean= 2.44; SD=0.71). They also expressed their dislike for the training exercises because they are too strenuous (Mean=1.92; SD=0.76) and would avoid participating in them if they have their way (Mean=1.96; SD=0.61). In addition, they feel that different circuit training exercises and drills are boring ((Mean=1.92; SD=0.49) and not beneficial for burning calories (Mean=1.84; SD=0.75). They also feel that the exercises are monotonous despite the variety of physical activities involved (Mean=1.56; SD=0.58) and dislike the training because it does not target multiple aspects of fitness (Mean=1.72; SD=0.61).

Generally, the athletes had positive attitude in the majority of the statements which is reflected in the overall mean attitude mean score of 2.65 and standard deviation of 0.62. This means that the volleyball athletes expressed a marginal positive (close 2.5, that is, the midpoint between agreement and disagreement) attitude towards circuit training exercises and the low standard deviation in all the attitude statements show that they were unanimous in their opinion.

Research Question Two: What is the mean difference between the mean attitude towards circuit training scores of female and male volleyball club athletes?

The data for answering this research question was analysed using mean and standard deviation of the summated attitude scores of the volleyball athletes. Table 2 shows the mean difference in the in their attitude scores.

Table 2: Mean and Standard Deviation of Attitude Scores of Female and Male Volleyball Athletes

Group	n	Mean	SD	Mean Difference
Female	12	53.58	3.09	1.43
Male	13	52.15	3.02	

Table 2 shows that the mean attitude scores of female and male volleyball athletes are different while the standard deviations show that their total attitude scores were quite variable. In addition, the Table shows that the mean score of the female athletes was higher than that of their male counterpart.

Research Question Three: What is the mean difference in attitude towards circuit training scores of volleyball club athletes based on their years of playing experience?

The data for answering this research question was analysed using mean and standard deviation of the summated attitude scores of the volleyball athletes. Table 4

shows the mean difference in the in their attitude scores based on years of playing experience.

Table 4: Mean and Standard Deviation of Attitude Scores of Volleyball Athletes based on Experience

Group	n	Mean	SD	Mean Difference
1-10 years	20	53.58	3.09	-0.95
11-20 years	5	53.60	1.14	

Table 4 shows that the mean attitude scores of volleyball athletes with 1-10 years playing experience and their counterpart with 11-20 years are almost similar. It also shows that the standard deviation of the first group was quite variable while that of the second group was smaller in terms of variability of their scores. In addition, the Table shows that the mean scores of the groups were almost similar. The difference in the mean scores of the two groups was tested using t-test for two independent samples. The result of the analysis is presented in Table 5.

Hypothesis One: There will be no significant mean difference in attitudes towards circuit training of volleyball club athletes based on gender

The mean difference in the attitude of the female and male athletes towards circuit training was tested using t-test for two independent samples and the result is presented in Table 3.

Table 3: Summary of t-test Analysis Result of Mean Difference in the Attitude Scores of Female and Male Volleyball Athletes towards Circuit Training

Group	n	Mean	SD	df	t_{value}	p_{value}	Decision
Female	12	53.58	3.09	23	1.169	.254	Retain H_o
Male	13	52.15	3.02				

Table 3 shows that the difference between the mean attitude scores of female and male volleyball athletes is not significant because the probability value of .254 is greater than .05 level of significance specified for testing the hypothesis. The decision was therefore to retain the null hypothesis and to conclude that there is no significant difference between the mean attitude scores of female and male athletes towards circuit training.

Hypothesis Two: There will be no significant mean difference in attitudes towards circuit training of volleyball club athletes based on years of playing experience.

Table 5: Summary of t-test Analysis Result of Mean Difference in the Attitude Scores Volleyball Athletes towards Circuit Training based on years of Playing Experience

Group	n	Mean	SD	df	t_{value}	p_{value}	Decision
1-10 years	20	52.65	3.39	23	-0.609	.548	Retain H_o
11-20 years	5	53.60	1.14				

Table 5 shows that the difference between the mean attitude scores of athletes with 1-10 years and 11-20 years playing experience is not significant because the probability value of .548 is greater than .05 level of significance specified for testing the hypothesis. The decision was therefore to retain the null hypothesis and to conclude that there is no significant difference between the mean attitude scores of volleyball athletes due to years of playing experience.

Conclusion

It was concluded, based on the findings of the study, that volleyball athletes' attitude to circuit training exercise was generally positive, although they disliked some aspects of the training. Furthermore, the attitude of the athletes towards circuit training was not influenced by gender, years of playing experience, and playing positions in the sport. It can therefore be concluded that any intervention designed to improve the performance of volleyball athletes should target both male and female athletes, players of different years of experience, and playing positions.

Recommendations

The researcher made the following recommendations based on the findings of this study:

1. Circuit training should include exercises that target development of specific volleyball skills development and should be facilitated by the coach.
2. Volleyball Club managers in the area of the study should re-examine different exercises in their circuit training to ensure that they are relevant in enhancing the performance of the athletes.
3. Gender stereotype should be minimized by the club managers, coaches and athletes themselves. Diverse opportunities should be provided to both male and female athletes, with different years of experience and playing positions in order to reduce inferiority complex among the athletes, encourage healthy competition, hence improve performance.

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