

IMPACT OF TEACHER-LED PHYSICAL EXERCISE ON SELF-EFFICACY AND PHYSICAL ACTIVITY PERFORMANCES OF FIRST YEAR UNDERGRADUATE STUDENTS IN A PRIVATE UNIVERSITY, OGUN STATE, NIGERIA

¹Oyerinde, Oyewole Olusesan

(Corresponding author)

²Prof. Aja Godwin ND, Assoc. ³Prof. Atulomah Ndumele SO, ⁴Prof. Oyerinde Oyeseun Olufemi, ⁵Olaoye Paul Olufemi, and ⁶Dr Adeoye Ayodele

^{1,2,3}Babcock University, Department of Public Health

⁴University of Ilorin

⁵Babcock University High School

⁶Babcock University, Department of Students Support Services

Abstract

There is low level of physical activity among undergraduate. Participation in PE dwindles precipitously among both male and female undergraduate students. It has been noticed that Physical activity/physical exercise (PA/PE) rates tend to decline precipitously during the secondary school years leading to low physical activity and exercise(PA/PE) among undergraduate and college males and females students. This consequently led to pull of ill health, such as obesity (juvenile obesity) and arthritis (in older women), hyperlipidemia (excess fat), stress, fatigue and arteriosclerosis of the heart vessels. Sedentary behaviour is one of the strongest risk factors for many chronic diseases and conditions, including cardiovascular disease, hypertension, diabetes, obesity, osteoporosis, colon cancer, and depression. Due to the above the objectives of the study was to identify the relation between teacher led activity and the self efficacy of undergraduate students using self efficacy mode. Thus this study shows the impact of Teacher led physical exercise (PE) on the self efficacy of undergraduate male and female students in a private university in Ogun State, Nigeria.

Materials and Methods: This cross-sectional study was conducted on 600 male and female first year undergraduate students in a private institution. It adopted a two arm quasi experimental research design. Participants completed questionnaire on the demographic, the self efficacy structured questionnaires as well as the physical activity questionnaire form to assess the physical activity practices and behaviour of undergraduate students at pre and post intervention.

The results showed that participant's ages ranged from 15 to 22 years. Participants aged 16 and 17 were in the majority, 147(24.5%) and 218(36.3%) respectively. Female students were more involved in the study than their male counterpart. Majority 379(65.2%) were females and the mean age of the students across the group was 17 ± 2.45 years. The self efficacy measured showed that majority 349 (58.2%) of the students said that they can-not do at all, moderately can do were 167 (27.8%) while self efficacy rating on those that can do highly were 84 (14%). Self Efficacy means score (SEMS) was 10.71 ± 4.04 and the SEMS at post was 17.94 ± 5.98 . The result tested at 95% confidence interval was significant ($p=0.000$). The increment in practice of Physical activity means score due to improved self efficacy at baseline was 19.72 ± 6.96 and at Post intervention was 43.43 ± 11.14 were significant.

In conclusion therefore self-efficacy had the strongest correlation with the levels of physical activity. Self-efficacy structure is one of the most effective factors of physical activity performance. Thus, enhancing the self-efficacy may be useful in order to promote the practice of physical activity among undergraduate students.

Keywords: Undergraduate Self efficacy, Self efficacy and First year undergraduate students, Self efficacy and Physical Exercise;

Wordcount: 423

Introduction

Physical Exercise (PE) Exercise is physical activity that is planned, structured, and repetitive for the purpose of conditioning any part of the body's and improves fitness (Ajibade, 1998). PE refers to the progressive structured, planned, organised bodily movement (Caspersen and Merritt, 1995). The United States Department of Health and Human Services (USDHHS), (2003) reports that physical activity levels decline as students' progress through educational levels. Bray & Born (2004) identified a decline in vigorous physical activity in the transition from high school to the first year in college. The same trend continued through the university days as one in five adolescent engage in high levels of activity, but one in four are largely inactive (USDHHS, 2003; CDC, 2010; Gordon, 2012).

Over the last two decades, the number of students in Nigerian Universities has steadily increased. Stress, peer pressure, educational drives, habits and ideologies and other challenges have reduced initiation and participation in sustained in planned and organised PE among the youths (Amponsah & Owolabi, 2011). Participation in PE is very low among collegiate students in Nigeria (Oyebanji, 1992; Obiyemi, et al, 2013). The decline in physical activity among the adolescents and youth in the higher institution is a major cause of upward epidemiology pattern of sedentarily associated diseases (Sallis, 2013). More alarming is that physical activity levels decline remarkably among girls during adolescence into adulthood (Oyebanji, 1992 Onigbinde, 2013). Amusa, 1986; Amusa, 1990; WHO 1997 pinned that physical activity decreases with gender and age among adolescents in many western and developing countries, including Nigeria

Currently, sedentary behaviour has been identified as one of the leading preventable causes of death and an inverse linear relationship exists between volume of physical activity behaviour and all-cause mortality (Bess, David, Patricia, James, Abby, Antronette, Barry, David, Stephen, Randal, 2006). Also lack of physical activity leads to functional decline and increased risk of disease in old age (Wijsman, Westendorp, Verhagen, Catt, Slagboom, de Craen, Broekhuizen, van Mechelen, van Heemst, van der Oudera, & Mooijaart, 2013). Meanwhile, it has been found that regular, moderate-intensity physical activity (for example, jogging, side way brisk walking, cycling, gymnastics and some forms of house and garden work) have a key role in the promotion of good health and the prevention of diseases (WHO, 1996; USDHHS, 1996; Xie, Spruijt-Metz, liu, Xia, & Gong, 2005). Moreover, participation in regular physical activity decreases the risk of cardiovascular disease, type 2 diabetes mellitus, osteoporosis, depression, obesity, breast cancer, colon cancer, and falls in older adults (Caspersen, Powell, & Christenson, 2012).

WHO (2013) estimates that 1.9 million deaths worldwide are attributable to physical inactivity, and at least 2.6 million deaths are as result of being overweight or obese. In addition, WHO (2013) estimates that physical inactivity causes 10% to 16% cases of breast

cancer, colon, and rectal cancers as well as type 2 diabetes, and 22% of coronary heart disease (Dobbins, Husson, DeCorby, & LaRocca, 2013). Cardiovascular disease remains among the leading causes of death in Mexico and throughout the world (Rees, Kavanagh, shepherd, brunton, Oliver & Oakley, 2006; Instituto Nacional de Estadística y Geografía (INEGI), (2008). Obesity is one of the most important risk factors for cardiovascular disease (Martorell, Kettel-khan, & Hughes, et al, 2000), and it has recently undergone a considerable increase throughout the world, particularly among children and adolescents (Williams, Hayman, Daniels, et al (2002); de Onis, Blossner, (2000)). In 1999, the prevalence of overweight and obesity in schoolchildren (from 5 to 11 years of age) in Mexico was around 19% (Instituto Nacional de Estadística y Geografía (INEGI), (2008).

As the structure of school sport in universities is unique, Peer supports and social support drive were used to develop a positive physical self-perceptions that may provide the foundation for future physical activity. Developing a social support was assessed using the Peer Support Scale developed by Prochaska, Rodgers & Sallis, (2002) to initiate an increased participation in PE among university undergraduates. Social support and self-efficacy have been identified as important correlate for participation in regular activity. Moreover, peer education is an important strategy for facilitating the adoption of indulgence in PE for health promotion because of its history of success in making young people adopt health innovations in Nigeria (Ajuwon, Olley, Akin-Jimoh and Akintola, 2002; Ajuwon, McFarland, Hudes, Adedapo, Okikiolu, & Lurie, 2002; Olagboye, 2004).

Many science teachers are afraid or reluctant to address issues that concern lifestyle (Bailey-Penrod, 2000) and it has been noted that the youth and the adolescents (William, Heather, Kerry and & Jeanna, 2012) despite the benefits of an active lifestyle to overall health (Strong, Malina, Blimkie, Daniels, Dishman, Gutin, Hergenroeder, Must, Nixon, Pivarnik, Rowland, Trost, & Trudeau, 2005), were not motivated enough to independently initiate and take up sustained voluntary physical exercise (Cyarto, Moorhead, & Brown, 2004). Therefore, increasing physical exercise and activity in the college-age population is a priority (USDHHS, 2003; Cyarto, Moorhead, & Brown, 2004). Hence to enhance university adolescent's low or sedentary lifestyle to moderate but enhancing PE, there is there for need to understanding the fact that the adolescent's health and physical well-being with the purpose of improving the self efficacy thereby enhance adolescents initiating a sustainable PE.

There are many ways for youth to be physically active; there are certain psychological and social variables that have been said to affect creativity potentials. Psychological variables include emotional intelligence, self-efficacy, self-esteem, self-concept, locus of control and personality traits while social variables include parental influence and peer pressure (Amponsah & Owolabi, (2011). Also, Durosaro (2001) noted that high self-concept leads to and good achievement and success help to increase self efficacy. Self-efficacy is a person's belief in their ability to change their behaviour. A person's belief in their ability to change a specific behaviour strongly predicts their ability to make that change. According to Bandura (1986), self-efficacy refers to a people's judgment of their capabilities to organize, execute a course of action required to attain designated type of performance. It is not known if interventions could be strengthened by combining them with policy approaches (U.S. Department of Health and Human Services, 2012, Centers for Disease Control and Prevention, 2012; National Center for Chronic Disease Prevention and Health Promotion, 2012).

A study where the self efficacy was enhanced by Zhaohui, Smita, et al, (2012) showed that there was a significant decrease in time in sedentary behaviour on weekdays, 20 min/day at 7 months reported by students in the intervention compared with control schools. This reduction was mainly due to a reduction of 14 min/day in computer usage on weekdays.

Hence there is convincing evidence that targeting self-efficacy is an effective means of increasing physical activity. However, evidence concerning these is the most effective techniques for changing self-efficacy and thereby physical activity which is lacking among the undergraduates. Kahn, Ramsey, Brownson, Heath, Howze, Powell, Stone, Rajab, Corso, (2002), reported a small, yet significant ($P < 0.01$) effect of the interventions found on change in self-efficacy and physical activity ($d = 0.16$ and 0.21 , respectively). When a technique was associated with a change in effect sizes for self-efficacy, it also tended to be associated with a change ($r_s = 0.690$, $P < 0.001$) in effect size for physical activity.

Moderator analyses found that 'action planning', 'provide instruction' and reinforcing effort towards behaviour' were associated with significantly higher levels of both self-efficacy and participation in physical activity

Self efficacy concept which was propounded by Albert Bandura described a cognitive mechanism that affects behaviour and it is viewed as a person's believe in his capability to produce a desired or intended result under specific condition (Bandura, 1997). That is, changes in condition could bring about changes in one's believe in his competence as well as his strength and commitment towards the accomplishment of his goal. Self-efficacy, according to Bandura, is a person's belief in his/her own competence, i.e., as the belief that one is capable of performing in a certain manner to attain a certain set of goals. It is an individual's expectation of embarking on a specific task and recording success in it.

Eccles, Midgley, & Adler 1984; Olaoye 2013) viewed self efficacy as a person's judgment of his or her capabilities based on mastery criteria; a sense of a person's competence within a specific framework, focusing on the person's assessment of their abilities to perform specific tasks in relation to goals and standards rather than in comparison with others capabilities. Individuals feel and act more motivated when they think they have the competence to meet the demands of the tasks at hand and believe they have some control, or autonomy, in regard to their participation. (Bandura, 1997) refined the definition of self efficacy to encompass those beliefs regarding individual capabilities to produce performances that will lead to anticipated outcomes. Thus self efficacy is a positive predictor of motor skills acquisition, execution, and participation for leisure, recreation, health promotion and competitive sports (Bandura, 1997 Olaoye 2013). Virtually all people can identify goals they want to accomplish, things they would like to change, and things they would like to achieve. However, most people also realize that putting these plans into action is not quite so simple. But the importance of the concept of self efficacy is such that, in recent times, it has been identified as a core component of several higher-order motivational concepts including empowerment (Spreitzer, 1996) core confidence (Stajkovic, 2006) and positive psychological capital (Luthans, Avolio, Avey and Norman, 2007). There is a social psychological variable that is conceptualized from a genetic perspective. It refers to people's beliefs about their capabilities to perform designated tasks which make differences on how people feel, think and act. A strong self efficacy enhances human accomplishment and personal well being in many ways: people with high assurance in their capabilities approach difficult tasks as challenges to be measured rather threats to be avoided. They approach threatening situations with assurance that they can exercise control over them. Such efficacious outlook produces personal accomplishment, reduces stress and lowers vulnerability to depression (Bandura, 2000). Graham and Weiner (1996) found out that an individual's self efficacy plays a major role in how goals, tasks and challenges are approached. He opined that self efficacy is the belief in one's capabilities to organize and execute the courses of action required to manage

prospective situations. One's self judgment of personal capabilities to initiate and successfully perform specific tasks at designated levels, expand greater effort, and perseverance in the face of adversity (Graham and Weiner, 1996; Bandura, 1997). It is a form of self-evaluation in which several sources of information (performance accomplishment, interpretations of physiological arousal) are appraised to form perceptions of capabilities (Katula and McAnley, 2001). It takes full account of external physical and social structures as well as internal cognitive processes. It is a theory which is simultaneously realistic and humanistic at the same time. He argued that our efficacy beliefs mediate subsequent thought patterns, affective responses and action (Bandura, 2000).

Self efficacy and performance of PE

Bandura's (1997) research work, stipulates that self efficacy is directly related to participation in PE and particularly athletic performances. Increases in self efficacy are mirrored by improvements in performance. Subsequently, decreases in performance limit both performance and training (Silva and Stevens, (2002). Prior experiences affect efficacy expectations, performing to a high standard is much greater if you believe in your abilities. Therefore, efficacy has tremendous explanatory power when comparing fluctuations in performance.

According to Grill (2002), self efficacy is very important in a PE like gymnastics, the performer must believe they can perform well at the required time since it needs precision and articulation (Olaoye, 2013). Initially low levels of self efficacy may transfer from piece to piece and negatively influence the whole performance. Therefore, initially high levels of efficacy will improve performance and should be maintained throughout one's life. Decrease in self efficacy could alter important performance variables such as arousal, stress and anxiety which may have snowballing effect on performance (Gill, 2002). The most consistent difference between sedentary or less successful performance and active elites is that those who participate possess greater levels of self efficacy (Gill 2002).

Verbal persuasion from coaches, sports psychologists and significant others is another antecedent of self efficacy. This can be in form of feed-back ("Here's how to do this") or motivational ("come on, you can do it") statements. The efficacy conveys the enhancing information that is considered credibly and knowledgeable, the verbal persuasion is likely to be more influential on the students. Participants in PE like the regular athletes also often employ verbal persuasion (or positive self talk) to help themselves feel efficacious "psych up" about what they are about to do. As there is a tendency to act according to how we think. Positive self and task related statement made by athletes can increase their self efficacy too.

Hence to enhance university adolescent's low or sedentary lifestyle to moderate but enhancing PE, the researcher develops, implements, and evaluates a practical model teacher-led combined with the peer-driven PE. There for understanding the fact that the adolescent's health and physical well-being constitute an important developmental dimension that enhanced rates of involvement in moderate to vigorous physical exercise may be especially important in promoting university undergraduate students' physical fitness and general health. The purpose of this research was to develop, implement, and begin to empirically validate acceptable and feasible practical model teacher-led peer-driven PE intervention with the purpose of improving the self efficacy thereby enhance adolescents initiating a sustainable PE.

Data Collection Instrument

The data for the study was collected using quantitative method. The instrument was pretested, and same used for the collation of data at the baseline and post test measures. Both face and content validity of the instrument were done by subjecting the questionnaire to expert approval. The 60 questionnaires used for the pretest were subjected to a test retest

reliability test which gave Cronbach’s Alpha of 0.737; thus confirming its high degree of reliability. The intervention ran for six weeks and the semi structured questionnaires were administered to 600 volunteer male and female first year students of Babcock University. Data were collected at the baseline and at immediate post intervention at the end of sixth week.

Results

The respondents mean score ranged between one and two. The lower the mean the better their score as only 138=mean score 1.56 ± 1 would not exercise even when other people encouraged them. Those who exercise because other people say they should were found to be significant at $0.005 < 0.035$ (see table15). Those who would exercise because other people say they should showed that those who cannot do at all were 349 (58.2%) (see table 14) while there was a rise in the number 308(51.3%) of those who participated because others said they should at the post intervention and this was the trend across the entire intervention group. Guilt is a negative pre disposing factor to self efficacy like I would have done this or that it would have improved my health was not significant ($P=0.055$, or $P > 0.05$) 48.5% said that they cannot do at all while, 51% further said that they can do it moderately and can do highly with encouragement from people. However, using the fixed model random effects showed the respondents who could exercise if they are tired were found statistically significant $P=0.034$. Those who would exercise while on holidays, exercise if nobody encourages them and those who sees their counterpart doing it or a significant others like their teacher and peers and do participate were found significant $P=0.000$ (Table 4.2).

Table 4.1: Demographic status of the respondents

	Frequency	Percentage %
Mean Age		17 ± 2.45
a. Age Actual		
15	11	1.8
16	147	24.5
17	218	36.3
18	100	16.7
19	39	6.5
20	28	4.7
21	6	1.0
22	51	8.5
b. Gender		
Male	379	63.2
Female	221	36.8
c. Marital Status		
Married	591	98.5
Single	8	1.3
Divorced	1	0.2

Table 4.2: showing the self efficacy of the respondents

		Frequency	Percent
Exercise because other people say i should	10-30(Cannot do at all)	349	58.2%
	40-60(Moderately can)	167	27.8%
	70-100(Can do highly)	84	14.0%
Exercise even when I don't feel guilty that I didn't	10-30(Cannot do at all)	291	48.5%
	40-60(Moderately can)	172	28.7%
	70-100(Can do highly)	137	22.8%
Exercise if a friend can support me	10-30(Cannot do at all)	189	31.5%
	40-60(Moderately can)	237	39.5%
	70-100(Can do highly)	174	29%

4.4: Baseline/pre-Intervention result for self efficacy and physical activity behaviour of fresh Undergraduate students

Table 4.3 shows the interaction effects between the groups and time for perceived self-efficacy means score (SEMS) of the respondents in respect of their conditioning for participation $F = .227$, the SEMS within group 10.71. The self efficacy was compared on a 57points scale to test the mean score of the students' responses. Self efficacy means score differs among the group as it was shown on table 4.3. The Experimental Group (EG₁) had the highest self efficacy mean score 10.85 ± 4.43 out of 57points scale. Though the SEMS was low it was not significant ($p = 0.797$).

Table 4.3: Self efficacy means scores of the respondents by group at baseline

Variables N=600	TELEPET GROUP	N	Mean	Std. Deviati on	Std. Error of Mean	Df	Mean Square	F	P value
Self efficacy	Control	138	10.61	4.03	.355	2	3.37	.227	.797
	Experimental one	272	10.85	4.43	.254	2			
	Experimental two	190	10.65	3.26	.252	2			
		600	10.71	4.04	.165				

Table 4.4 highlights the participation in PE pattern among the control (CTG) and the two experimental groups in comparison with the self efficacy mean score at baseline for the control (CTG), Physical exercise means score (PEMS) had a mean score of 19.11, the EG₁ had 20.07 and EG₂ PEMS was 19.53 at baseline. There was no significant relationship between the control and the experimental groups, though, the result differs among the group as it was shown on table 4.5, the EG₁ which was the experimental one (combined teacher led peer driven group) had the highest SEMS 20.07 ± 7.71 out of 76points scale rating, this was not significant $p = 0.394$

Table 4.4: Practice of PE means scores of the respondents by group at baseline

Variables	TELEPET GROUP	N	Mean	Std. Deviation	Std. Error of Mean	Df	Mean Square	F	P value
Participation in PE on 76point scale	Control	138	19.11	5.51	.472	2	36.39	.932	.394
	Experimental one	272	20.07	7.71	.440	2			
	Experimental two	190	19.53	6.49	.516	2			
	Total	600	19.41	6.82	.283				

Table 4.3 and table 4.4 shows the result of the comparison participants self efficacy means scores and Participation means score at baseline within the groups that they are at the same level and at par before the intervention. The participants mean scores were generally below average across boarder for self efficacy and Practice of PE. Comparing Self efficacy (SEMS) and Practice of PE (PEMS) by groups, for the CTG, EG₁ and EG₂ at baseline were not significant (P>0.05) (Tables 4.6).

4.3: The Result of Post Intervention

The same research instrument was used to obtain data at the end of the six weeks intervention at immediate post test. The results for self efficacy and participation in PE variables for CTG at immediate post intervention and comparing baseline measures are presented. The mean of the variables were also used to compare the base line with the post intervention results.

The self efficacy means score was compared on an aggregate of 57-point scale measure as was used in pre result, to test the self efficacy means score (SEMS) and Practice of PE (PEMS) of the students’ responses. The intervention and the control groups reported a self efficacy means score of 22.25±6.41 for Experimental Group One (EG₁), 21.64±6.17 for Experimental Two (EG₂) and the Control had 19.60±6.27, this was significant (p<0.000).

Table 4.5 further shows the gradual increase in PE means score from the pre test score. At Post intervention the EG₁ (the teacher-led, peer-driven) topped the groups with practice PEMS of 43.74 ±10.52, while EG₂ PEMS was 43.10. These increment were significant (p<0.000).

Table 4.5: The post intervention descriptive analysis of the self efficacy and physical activity behaviour of respondents

N=600	Maximum Points on Scale of Measure	Control (N=138)		Experimental one (N=272)		Experimental two (N=190)		F	Sig.	
		Mean	±SD	Mean	±SD	Mean	±SD			
a.	Self efficacy	57	19.60	6.27	22.25	6.41	21.64	6.17	10.018	.000

b. Involvement in physical exercise	76	29.02	5.32	43.74	10.52	43.10	11.96	186.96	.000
-------------------------------------	----	-------	------	-------	-------	-------	-------	--------	------

4.4: Result of comparison between the baseline and post intervention between groups (CTG, EG₁ and EG₂)

Table 4.6 shows the average mean scores self efficacy and the practice of PE at base line and the Post intervention. The table shows that at baseline the average SEMS was 10.71±4.04 and the average SEMS at post was 17.94 ±5.98. The result tested at 95% confidence interval was significant (p=0.000). The same patterns of increment were noticed on the sum of their participation in PE (PEMS). The table shows that at baseline the the PE mean score was 19.72±6.96 at baseline and 43.43±11.14 at post. These were found to be significant at (2 tailed Test) (P< 0.05) (Table 4.6).

Table 4.6: Comparison of average mean score at baseline and post intervention for CTG, EG₁ AND EG₂ (control, teacher-led peer- driven PE and peer-driven PE only)

Variables	N	Pre			Post			Sig. (2-tailed)
		Mean	Std. Deviation	Std. error of Mean	Mean	Std. Deviation	Std. error of Mean	
Self efficacy	600	10.71	4.04	.129	17.94	5.98	.162	.000
Involvement in physical exercise	600	19.72	6.96	.454	43.43	11.14	.218	.000

4.5: Impact evaluation of result of base line and post intervention by control and combined experimental groups

Table 4.7 shows the result of comparison of general self efficacy means score by age, gender and marital status. The SEMS about the therapeutic effect of PE and the skills developments toward practice of PE was Compared on 57points scale at immediate post intervention with the baseline means was statistically significant (P=0.000). The SEMS at baseline was 10.61± 4.03, while at PI it was 22.25 ± 6.41

Comparing the results by self efficacy gender showed the result of the male at PI was 21.67± 5.65 and the female was 21.92±5.42. There was no significant difference (p>0.05) in the SEMS between the means score of the male and the female counterpart among the first year undergraduate adolescent. The table also shows that there was no significant difference (p>0.05) between the SEMS of first year undergraduate by gender and marital status this may be due to the fact that majority are single (Table 4.7). The result showed that an ample increment in the self efficacy led to increment in participation in PE. However, the differences was not wide enough to have a significant effect among male and female, the single and the married even though the SEMS for the few married 23.50 ±6.47 had a greater impact than the single 21.84 ±5.48 (table 4.7)

Table 4.7: Comparison of respondents self efficacy mean scores for the control, experimental Groups at the baseline and post intervention

	Baseline	Maximum Points on Scale of Measure	Control N=138		Experimental Groups N=272		F	Sig.
			Mean	±SD	Mean	±SD		
	Self efficacy	57	10.61	4.03	22.25	6.41		.000
a.	Mean Age		17±2.45					
	15	57	11.60	5.07	22.58	5.81		
	16	57	10.76	4.38	22.54	5.67		
	17	57	10.34	4.15	22.04	5.39		
	18	57	10.26	3.57	21.48	5.20	5.323	.021
	19	57	10.55	4.30	21.62	5.64		
	20	57	10.66	2.33	20.76	5.94		
	21	57	13.00	3.60	20.75	5.58		
b.	Gender							
	Male	57	11.53	3.53	21.67	5.65	.247	.620
	Female	57	10.37	4.13	21.92	5.42		
c.	Marital Status							
	Married	57	8.66	6.11	23.50	6.47	.712	.399
	Single	57	10.65	4.00	21.84	5.48		

CONCLUSION

Self efficacy at baseline and post interval

1. There was correlation indicating a significant relationship of $f=16.144$, $p=.000$ between the predictor variable (teacher-led, peer-driven) and the students' self efficacy (Table 4.6). Thereby showing a significant role in students' involvement in physical activities. It was revealed that the first year students' participation in PE had increased.
2. The regression result for the variables (Self Efficacy factor) influencing Involvement in physical exercise was also found to be statistically significant $df=2$, $f=5.559$ and $P>0.004$. Dependent variable (practice and involvement in physical exercise) and predictors' factors are constant, $\beta= 0.135$, $t(600) = 3.327$; $p < 0.05$. The result shows that multiple correlation coefficients indicating the relationship between the predictor variables (teacher-led peer- driven) and students' involvement in physical activities were significant. Therefore we accept the hypothesis that there is difference between first year undergraduate students' self efficacy at baseline and after (Teacher led Peer driven PE)

Results reveal that most of the first year undergraduates of BU students have increment in participation in PE mean scores as shown by the result at baseline and the end result at Post Intervention. There was a significant linear relationship ($P=.000$ and $P=0.001$) between the predictor variables Self efficacy and students' involvement in physical activities.

There is a positive relationship between self efficacy, participation in physical exercises by in-school adolescents and their overall health and educational development (Strong, Malina, Blimkie, Daniels, Dishman, Gutin, Hergenroeder, Must, Nixon, Pivarnik, Rowland, Trost, & Trudeau, (2005). Teacher leaders can be credible sources for social interaction, social cohesion and factual information (Daheia, Barr-Anderson, Melissa, Laska, Veblen-Mortenson, Farbaksh, Dudovitz, & Story, 2012). The findings from this study show

that there was an increase in the practice of PE among the first year undergraduate. Hence, the result showed that self efficacy influenced the practice of PE of the first year undergraduate students.

5.4 RECOMMENDATIONS

In conclusion improved self efficacy influenced PE practices of the first year undergraduate students. It is, therefore, recommended that:

1. Sports administrators in the universities should employ the use of social medium of combined efforts of teacher-led, peer-driven PE to improve the self efficacy of the university undergraduates so as to combat idleness, diseases burden and turn out able bodied economic vibrant young adult to the society.
2. Parents and school should build confidence in their wards.
3. There should be development of policy through advocacy authorizing inclusion of PE as a pre requisite extra curricula activity alongside general courses.

REFERENCE

- Adedeji, J.A. (1978): Female participation in PE in secondary schools. Nigeria *International journal of physical education* xv (6) 234-246.
- Ajibade A, (2004); Hand Book of Physical and Health Education (for Junior Secondary Schools (Revised Edition). ISBN 978-34660-5-4 Positive Press Ibadan. Nigeria pg 144-147
- Ajuwon, AJ, McFarland, W, Hudes, ES, Adedapo, S, Okikiolu, T and Lurie, P (2002): HIV RISK-Related Behaviour, Sexual coercion and implications for prevention strategies among female Apprentices, Tailors, Ibadan, Nigeria AIDS and Behaviour Volume 6, Number 4 3, Sept. 2002
- Ajuwon, AJ, Benjamin, OO, Akin-Jimoh, I and Olagoke, A (2002): Sexual Coercion in Adolescents in Ibadan, Nigeria. Results of a collaborative Reseach project of the African Regional Health Education Centre, Col. of Med., University of Ibadan, and the special programme of research development and research training in human Reproduction World Health Organization, Geneva, Switzerland.
- Amponsah, M., & Owolabi H. O. (2011): Perceived Stress Levels of Fresh University Students in Ghana: A Case Study. *British Journal of Educational Research* 1(2): 153-169, 2011 SCIENCEDOMAIN international www.sciencedomain.org Department of Educational Foundations, University of Cape Coast, Cape Coast, Ghana. Received 20th July 2011
- Amusa L.O., (1990): The place of recreation in preventive medicine proceeding of 16th annual conference of NAPHER (pp. 61-64).
- Bailey-Penrod J, 2000: The Fit Between Adventist Health Principles, And Discoveries In Modern Biomedical Science. Northern Caribbean University Mandeville, Jamaica 419-00 Institute for Christian Teaching 12501 Old Columbia Pike Silver Spring, MD 20904 USA. Prepared for the 26th International Faith and Learning Seminar held at the Geoscience Research Institute, Loma Linda, california, U.S.A. July 16-28, 2000.
- Bandura A., (1991): Self-efficacy mechanism in physiological activation and health-promoting behaviour. *Int. J. Madden*, IV (Ed.), Neurobiology of learning, emotion and affect (pp. 229- 270). New York: Raven.

- Bandura, A. Caprara, G.V., Barbaranelli, C., Gerbino, M., & Pastorelli, C., (2009); "Role of Affective Self-Regulatory Efficacy in Diverse Spheres of Psychosocial Functioning"
- Bandura, A., Caprara G.V., Barbaranelli, Claudio & Pastorelli, C., (2009); "Sociocognitive Self-Regulatory Mechanisms Governing Transgressive Behaviour"
- Banduras, A. (1997): Self-efficacy: Toward a Unifying Theory of Behavioural Change, *Psychological Review* 1977, Vol. 84, No. 2, 191-215.
- Benowitz N.L. (2004): Cardiotoxicity in the workplace. Excellent in- depth review of the impact of chemical exposures in the workplace on the toxicological and physiological mechanisms that play a part in the development of cardiovascular disease. *Occup Med* 1992;7:465–78. *Journal List Heart v.90(9); Sep 2004_PMC1768437*
- Bess H.M, David M.W, Patricia M.D, James F.S, Abby C.K, Antronette K.Y, Barry A.F, David B, Stephen R.D, Randal P.Cl, (2006). 2014 AHA/ACC/HRS *Circulation*. 2006;114:2739-2752 published online before print December 4 2006, doi:10.1161/CIRCULATIONAHA.106.179683
- Bray, S. & Born, H. (2004): Transition to university and vigorous physical activity: Implications for health and psychological well-being. *Journal of American College Health*, 52(4), 181-188. In Gordon Bietz, (2012); *Living a Balance Life Physical Activity quality enhancement plan revised Southern Adventist University*.
- Caspersen, C.J, Powell P.E, Christenson, G.M, (2012). Physical Activity, Exercise, and Physical Fitness: Definitions and Distinctions for Health-Related Research Division of Health Education, Center for Health Promotion and Education, In Centers for Disease Control, (2012) Atlanta, GA 30333.
- CDC, (2012): Youth Risk Behaviour Surveillance System, Youth Risk Behaviour Surveillance. United States, 2003 *MMWR* 53(SS-2):1–29, 2004. <http://www.cdc.gov/healthyyouth/yrbs/>. DI E TARY GUIDE L INE S FOR AM E R IC ANS , 2005
- Centers for Disease Control and Prevention
- Centers for Disease Control and Prevention, (2000); Behavioural Risk Factor Surveillance System Summary Prevalence Report. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2001. p. 110
- Centers for Disease Control and Prevention, (CDC) (1996.); A Report of the Surgeon General U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES National Center for Chronic Disease Prevention and Health Promotion. The President's Council on Physical Fitness and Sports Physical Activity and Health. Retrieve (2012) (<http://www.cdc.gov/nccdphp/dnpa/physical/terms/index.htm>). on Behavioural Risk Factor Surveillance System, Surveillance for Certain Health Behaviours Among Selected Local Areas—United States, Behavioural Risk Factor Surveillance System, 2002, *Morbidity and Mortality Weekly Report (MMWR)*, 53, No SS-05. <http://www.cdc.gov/brfss/>.Ise
- Centers for Disease Control, (CDC), 2007; MyPyramid and Physical Activity Tracker. websites for physical activity information Centers for Disease Control and Prevention Centers For Disease Control and Prevention, Obesity Trends Getting Physically Active Good Nutrition and Physical Activity Plans ([mypyramid.gov](http://www.cdc.gov/nccdphp/dnpa/obesity/trend/maps/)) <http://www.cdc.gov/nccdphp/dnpa/obesity/trend/maps/>
- Chen X, Murphy DA, Naar-King S, & Parsons JT, (2011): A multicentral randomized control trialfor the adolescentsmedicine trials Network for HIV/AIDS intervention. //the Journal of Adolescent Health. 2011 Aug; 49(2)193-198.

Cyarto EV, Moorhead GE, Brown WJ. (2004) Updating the evidence relating to physical activity intervention studies in older people. *J Sci Med Sport. 2004; 7 (suppl): 30–38*.people. *J Sci Med Sport. 2004; 7 (suppl): 30–38*.

de Onis M, Blossner M, (2000); Prevalence and trends of overweight among pre-school children from developing countries. *Am J Clin Nutr 2000;72:1032-9*.

Dobbins M, Husson H, DeCorby K, & LaRocca RL, (2013): School-based physical activity programs for promoting physical activity and fitness in children and adolescents aged 6 to 18. *Cochrane Database Syst Rev. 2013 Feb 28;2:CD007651*. doi: 10.1002/14651858.CD007651.pub2.

Dunn-Carver M, Pope L, Dana G, Dorwaldt A, Flynn B, Bunn J, & Harvey-Berino J, (2013): Evaluation of a teacher-led physical activity curriculum to increase preschooler physical activity *Vol.3, No.1, 141-147 (2013) Open Journal of Preventive Medicine doi:10.4236/ojpm.2013.31018*

Durosaro J, (2001): Gender, Self concept and career interest as correlate of creativity among adolescents in Kwara State. Paper presented at the monthly meeting of counselling Association of Nigeria, on 15th june, 2001 Educare Trust, (2007). A handbook of Education in the new millennium. 3rd edition. Ibadan.

Eccles, J. S., Midgley, C., & Adler, T. F. (1984). Grade-related changes in the school environment: Effects on achievement motivation. In J. Nicholls (Ed.), *Advances in motivation and achievement* (Vol. 3, pp. 283-311). Greenwich, CT: JAI Press.

Eduardo Lazcano-Ponce, Elad ziv, José Pulido-Rodríguez, Manuel De Jesús Garc_ía-Solis, Efrén Murillo-Zamora, Julia v_Azquez-Lara, Isabelle Romieu, (2012): Moderate-Intensity Physical Activity, Ameliorates the breast cancer risk in Diabetic women *Journal of diabetes care, volume 35, december 2012*
Education, Society & Behavioural Science, 2(2): 103-126, 2012 efficacy. International Journal for behavioural medicine 8:319-26.

(Olaoye, P O, 2013); (Unpublished); Self Efficacy as predictor of accuracy in performance of penalty shot among soccer players in Babcock University, Ogun State. Nigeria. A research dissertation submitted to the Department of Human Kinetics, University of Ibadan.

National Institute on Aging, (2010), Your Every Day Guide, Exercise and Physical Activity; (www.NIHSeniorHealth.gov) (National Institute of Health US Depart. of Health and Human Services.) Gaithersburge, MD20898-8057

National Institute on Drug Abuse (2000) Drug abuse among adolescents. *British Journal of National Taskforce on Obesity. (2004). The Department of Health and Children. Launched by Taoiseach Bertie Ahern in June 2005. Retrieved from website: www.dohc.ie on 8/1/08. Selected drugs Journal website at;*

<http://mrtbjournal.org/index.php/lnjml/issue/current/showToc>

Obiyemi O.O., Oyerinde O.O, Oniyangi S.O., Abu, D.A., Adeoye O. A. (2013): Effects of Teacher-Encouraged Physical Activity on Preschool Playgrounds. The online version of this article can be found at: DOI: 10.1177/1053815109331858 *Journal of Early Intervention* 2009 31: 126 *University of South Carolina, Columbia*
<http://jei.sagepub.com/content/31/2/126>

- Onigbinde AT, Oyerinde OO, Talabi AE, Obiyemi OO, Ogunsakin EA, Adesoye AA, Sheura, Oniyangi SO, OruajogunOO, (2009):Effect of therapeutic exercises on some. *Nigeria International Journal of Medical Rehabilitation (NJMR)*; Vol. 14, No.1 & 2, (Issue No. 22) 2009
- Oyebanji, V.A. (1992). Women in sports. Culture and Religious factors. In J.C. Omoruan; K. Venkateswarlu and F.B. Adeyanju (eds). Multidimensional perspective of women participation in sports. Nigeria Association of women in sport. In Obiyemi, et al (2013). Journal of WAUG
- Prochaska, J and DiClemente, C (1992): "The transtheoretical approach (draft)". Prochaska, JO, (in press). A transtheoretical model of behaviour change. Health Behaviour. www.uri.edu/research/cprc/Publications/Risks/Transtheoretical_Model.htm
Psychological Review 84, 191 – 213.
- Rees R, Kavanagh J, shepherd J, brunton G, Oliver S & Oakley A, (2006); Young people and physical activity: a systematic review matching their views to effective interventions *The Journal Health Educ. Res.* (2006) 21 (6): 806-825 first published online October 13, 2006 doi:10.1093/her/cyl120
- Sesso HD, paffenberger RS Jr, Lee IM, (2000); Physical activity and coronary heart in men; The Harvard Alumni Health Study. *Circulation* 2000; 102: 975-80. In Emily B. Kahn, Leigh T. Ramsey, Ross C. Brownson, Gregory W. Heath, Elizabeth H.Howze, Kenneth E. Powell, Elaine J. Stone, Mummy W. Rajab, MS, Phaedra Corso, and the Task Force on Community Preventive Services, (2013): Evaluation of a teacher-led physical activity curriculum to increase preschooler physical activity *Open Journal of Preventive Medicine Vol.3, No.1, 141-147 (2013)* doi:10.4236/ojpm.2013.31018
- Strong WB, Malina RM, Blimkie CJ, Daniels SR, Dishman RK, Gutin B, Hergenroeder AC, Must A, Nixon PA, Pivarnik JM, Rowland T, Trost S, Trudeau F (2005): Evidence based physical activity for school-age youth. *J Pediatr* 2005, 146:732-737. In Parvaneh Taymoori, Shamsaddin Niknami, Tanya Berry, David Lubans, Fazloalha Ghofranipour, and Anoshirvan Kazemnejad; (2008): A school-based randomized controlled trial to improve physical activity among Iranian high school girls, *Int J Behav Nutr Phys Act.* 2008; 5: 18. Published online 2008 April 3. doi: 10.1186/1479-5868-5-18PMCID: PMC2386503 © 2008 Taymoori et al; licensee BioMed Central Ltd. *Systems: Improving Performance* (Geneva: WHO, 2000), accessed online at www.who.int/whr2001/2001/archives/2000/en/contents.htm, on June 3, 2003.#
- U.S. Department of Health and Human Services. (2012); *Physical Activity and* University,
- US Dept of Health and Human Services and US Dept of Agriculture, (2005); *Dietary Guidelines for Americans, (2005). 6th ed. Washington, DC: US Government Printing Office; 2005.*
- The American College of Sports Medicine (2013)
- US Dept of Health and Human Services, (1996); *Physical Activity & Health: A Report of the Surgeon General.* Atlanta, Ga: US Dept of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion; 1996.

- Weiss MR, Ebbeck V, (2013): Self-esteem and perceptions of competence in youth sports. In *The encyclopedia of sports medicine, Volume IV: The child and adolescent athlete*. Edited by Malina RM. Oxford: Blackwell Science Ltd; 1996:364-382.
- WHO (2006): Promoting physical activity and active living in urban environments THE ROLE OF LOCAL GOVERNMENTS
- WHO, (2009). accessed online at www.who.int/whr2009/2001/archives/2000/en/contents.htm, on June 3, 2009.
- WHO, Department of Health and Human Service (DHHS) (2008): Physical activity Guidelie for America
- Wijsman, C.A, Westendorp G.J., Verhagen, A.L.M, Catt, M, Slagboom, P.E., de Craen J.M.,Broekhuizen, k., van Mechelen, W., van Heemst D, van der Ouderaa F, Mooijaart, SP, (2013).: Effects of a Web-Based Intervention on Physical Activity and Metabolism in Older Adults: Randomized Controlled Trial. *i-JMIR Vol 15, No 11 (2013) > Wijsman*
- Williams CL, Hayman LL, Daniels SR, et al (2002); Cardiovascular health in childhood. A statement for health professionals from the Committee on Atherosclerosis, Hypertension, and Obesity in the Young (AHOY) of the Council on Cardiovascular Disease in the Young, *American Heart Association. Circulation 2002;106:143-60*.
- World Health Organization (WHO), (2003); *The World Health Report 2000—Health Systems: Improving Performance* (Geneva: WHO, 2000), accessed online at www.who.int/whr2001/2001/archives/2000/en/contents.htm, on June 3, 2003.
- World Health Organization, (2001): Evaluating community health programmes by Potvin L and Richard L (2001): In Rootman I et al (Eds) *Evaluation in health promotion: principles and perspectives*. Copenhagen, WHO Europe.
- World Health Organization, (2002): The report of the WHO Mega Country Health Promotion Network. Meeting on Diet, Physical Activity and Tobacco. Convened in Geneva, Switzerland 11-13 Dec., 2002, pp. 8-15 "<http://www.who.int/hpr/mega/docs/mega>" <http://www.who.int/hpr/mega/docs/mega> meeting final report.
- Xie B., Chou C.P., Spruijt-Metz, D., Liu, C., Xia J., Gong, J., (2005) Effect of perceived peer isolation and social support availability on the relationship between body mass index and depressive symptoms. *International Journal of obesity*, vol. 29, 1137-1143
- Zahner L, Puder JJ, Roth R, Schmid M, Guldemann R, Pühse U, Knöpfli M, (2012): Effects of Teacher-Encouraged Physical Activity on Preschool Playgrounds. The online version of this article can be found at: DOI: 10.1177/1053815109331858 *Journal of Early Intervention* 2009 31: 126 *University of South Carolina, Columbia* <http://jei.sagepub.com/content/31/2/126>
- Zhaohui C, Smita S, Lijing Y, Yongping P, Aiyu G, Xiaoyan S, Yangfeng W, Michael J D (2012): Effect of a school-based peer education intervention on physical activity and

sedentary behaviour in Chinese adolescents: a pilot study Nutrition and metabolism
BMJ Openbmjopen.bmj.com *BMJ Open* 2012;2:e000721 doi:10.1136/bmjopen-2011-
000721