

Three Approaches to Coping with Exercise Duration Boredom among Sedentary Workers in Festac Town, Lagos State, Nigeria

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ABSTRACT

This study was carried out to find out which exercise boredom coping strategy works better in making exercisers cope with boredom during exercise. The strategies investigated were: music, video/audio-visual aid and internal counting of repetitions. Fifteen subjects in groups of five were used in the study. Each group exercised for four weeks each, three times a week. They exercised using the treadmill and cycle ergometer alternatively. The variables studied in this research were; exercise duration, exercise compliance, and perceived exertion. The study revealed that subjects that exercised with music had the higher duration (28.58s), higher exercise compliance index (4.60) and rate of perceived exertion (8.02), indicating that music did have an effect on exercise duration boredom. The hypothesis music-aided exercise will not have a significant effect on exercise duration boredom was rejected. According to the findings, the video had a relatively low effect on exercise duration boredom, as represented by lower exercise duration (22.30s), lower exercise compliance index (3.87) and the lower rate of perceived exertion. Internal counting of repetitions fared better than video watching but not as high as listening to music while exercising.

KEYWORDS

Health Education, coping strategies, exercise boredom, sedentary workers, experimental design, Nigeria

INTRODUCTION

There is an increased awareness of the importance of exercise in maintaining health among Nigerians. As a result of this, a lot of people now engage in various forms of exercise for the purpose of achieving and maintaining physical fitness. The number of people that jog on a regular basis is on the rise, health and fitness center patronage is on the increase. Most corporate bodies now include fitness center membership as part of welfare packages for their staff. Virtually everybody can recite the benefits of exercise.

The myriad of health benefits associated with physical activity has been well documented (Otinwa, 2008). Participation in regular physical activity throughout the lifespan has been identified as being important for maintaining and enhancing physical and psychological benefits (Mark and Anshel, 2007, Scott powers Edward and Hawley, 2001).

While most people recognize that regular physical activity has a beneficial impact on health, this recognition does not eradicate some of the challenges encountered during physical activity. It does not make it less of a struggle to get to the gymnasium or out of the door for an early morning run or walk. The problem of boredom during exercise is the reason why many people lose their zeal for physical activity. Boredom is a condition characterized by wandering attention, impaired efficiency and low levels of arousal. It is sometimes confused with fatigue, but boredom usually results from too little stimulation, motivation, and interest. It commonly occurs in those who regularly perform monotonous exercise routines. A variety of health club options can become boring and predictable if done over and over again. Although the regular exerciser will not stop working out because of boredom, the workout sessions may become shorter and less intense.

The repetitive nature of monotonous exercise has been observed to be a major cause of exercise boredom. It is not uncommon to find people starting exercise programs with great Zeal and motivation, only to quit after a few weeks or find the zeal dying out almost immediately. This is not a function of fatigue but boredom as a result of the repetitive nature of the exercise.

FRAMEWORK

The need for sustained interest in exercise cannot be overemphasized, for therein lay the key to the achievement of long-term goals of physical fitness activities. If exercisers continue to exhibit the habit of dropping in and out of exercise programs due to boredom, exercise becomes of no value. There is an abundance of research in the

area of influence of music on the enhancement of physical activity performance and participants have maintained that they performed better exercising with music.

Knowing that there is a role that music plays in exercise, despite how minimal it is still unclear to what extent this goes. Does it go beyond performance enhancement? Does it sustain interest in the activity throughout exercise duration and does it make the exerciser look forward to the next session of workout? The significance of this study borders on finding answers to these questions not only as it pertains to music but also to two other approaches namely: Internal counting of repetitions and audio-visual aid. Internal counting of repetitions refers to counting numbers internally while performing an exercise.

This is believed to take the exerciser's attention away from the task at hand, thus eliminating boredom. The audio-visual aid includes videos and television programs played during exercise. This also takes the focus off the exercise; the exerciser can possibly exercise beyond the duration specified unknowingly.

OBJECTIVES OF THE STUDY

This study, therefore, sought to compare strategies for coping with this situation to determine their effectiveness in eliminating or reducing boredom in exercise, indicated by almost hundred percent adherences to exercise duration.

The purpose of the study is to identify the most effective of three approaches to coping with exercise duration boredom, thus sustaining interest in physical fitness activities throughout their duration.

METHODOLOGY

The population of this study was the sedentary workers in Festac Town, Lagos State, Nigeria. The sample consists of 15 male and female sedentary workers selected from residents of Festac Town, Lagos. The sampling technique was the simple random sampling.

Materials

The researcher made use of the following materials in carrying out this research work: Treadmill, Sphygmomanometer, Stopwatch, Polar Heart Rate Monitor, CD player, Television Set, DVD Player

Procedure for Data Collection

The researcher prepared an informed consent form and gave them to all participants. Before commencement of the research, participants exercised on the treadmill under the three conditions (music, video and internal counting of repetition). Variables measured

are: resting heart rate, heart rate during exercise, rate of perceived exertion and the exercise compliance index of participants

The Perceived Exertion Index (PEI)

This measures the rate of perceived exertion (RPE) of participants. The RPE scale gives a quantitative identification of the feeling of fatigue; it indicates a subjective sensation of effort. The perceived exertion index has different scales of measurement but for this study, the ten point scale was used.

0	Nothing at all	4	Somewhat Hard
1	Very Light	5	Hard
2	Fairly Light	6-7	Very Hard
3	Moderate	10	Very, very Hard

Exercise Compliance Index (Ed)

This measures the rate of the participants’ compliance with the exercise. In other words, it measures how long the exerciser continued on the activity out of the total duration of the exercise. It has a scale of 0 — 5, in a 30-minute long activity. The following are ratings for such scale:

5 minutes	=	1
10 minutes	=	2
15 minutes	=	3
20 minutes	=	4
30 minutes	=	5

Ethical Considerations

The researcher ensured participants signed the consents forms when they agreed to participate in the research. The researcher ensured that data collected during the research were a true representation of what was obtained from participants.

RESULTS

The results of this study are presented in the table below:

Table 1. Duration of Exercise

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max	Between Component Variance
Group 1	60	28.58	3.300	.426	27.73	29.44	15	35	
Group 2	60	22.30	4.900	.633	21.03	23.57	12	30	
Group 3	60	27.00	3.459	.447	26.11	27.89	17	31	

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max	Between Component Variance
Total	180	25.96	4.755	.354	25.26	26.66	12	35	
Model fixed effects			3.953	.295	25.38	26.54			10.419
Random Effects				1.887	17.84	34.08			

The above table describes the characteristics of the three groups showing their means and standard deviation, derived from the duration of exercise.

Table 1.1. ANOVA Table on the Duration of Exercise

	Sum of square	df	Mean Square	F	Sig.
Between Groups	1281.544	2	640.772	41.061	.000
Within Groups	2765.183	177	15.623		
Total	4046.728	179			

This table shows the statistical analysis of the mean of the three groups in exercise duration. The table shows significant difference in the groups' scores.

The mean duration of exercise for the three groups (music, video, and internal counting) are presented above and it shows that duration using music was significantly different from video and internal counting, with music ranking highest. This indicates that music elicited a longer duration of exercise in the subjects.

Table 2. Descriptive Analysis of Exercise Compliance Index

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max	Between Component Variance
Group 1	60	4.60	.588	.076	4.45	4.75	3	5	
Group 2	60	3.87	.623	.080	3.71	3.71	3	5	
Group 3	60	4.40	.558	.072	4.26	4.54	3	5	
Total	180	4.29	.664	.050	4.19	4.39	3	5	
Model fixed effects			.591	.044	4.20	4.38			.138
Random Effects				.219	3.35	5.23			

This table describes the mean, standard deviation, standard of error and confidence interval for mean of the scores in Ed. From the table, group one ranks highest, implying that music aided compliance of subjects to exercise. Group three followed before group two.

Table 2.1: Analysis of Variance on the Exercise Compliance Index of the Three Groups

	Sum of square	df	Mean Square	F	Sig.
Between Groups	17.244	2	8.622	24.721	.000
Within Groups	61.733	177	.349		
Total	78.978	179			

The ANOVA table above compares all the group mean scores of ECI difference in the ECI of the groups.

Table 3.0. Descriptive Data on Rate of Perceived Exertion

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max	Between Component Variance
Group 1	60	8.02	1.097	.142	7.73	8.30	4	9	
Group 2	60	6.28	1.814	.234	5.81	6.75	0	9	
Group 3	60	7.15	.899	.116	6.92	7.38	5	9	
Total	180	7.15	1.500	.112	6.93	7.37	0	9	
Model fixed effects			1.329	.099	6.95	7.35			.722
Random Effects				.500	5.00	5.00			

The table of description shows the mean scores of all three groups as well as the standard deviation and confidence interval and standard of error.

Table 3.1: ANOVA Table of the Rate of Perceived Exertion

	Sum of square	df	Mean Square	F	Sig.
Between Groups	90.133	2	45.067	25.500	.000
Within Groups	312.817	177	1.767		
Total	402.950	179			

This ANOVA table compares the groups RPE and indicates a significance difference in the groups' score

DISCUSSION

Findings of the study showed that subjects that exercised with music (Group 1), ECI, RPE and ED (Exercise Duration) were higher than those of the other groups (Video and Internal Counting). This goes to show that music affected adherence to exercise positively and it also increased output as measured by (RPE) Rate of Perceived Exertion.

Results of this study showed the effect of exercising with video on subjects' performance, the ECI, RPE and ED of subjects were significantly low compared to those of the other groups. This implies that exercising with video decreased output and duration. Subjects that exercised using internal counting (Group 3) showed reasonable output adherence to duration of exercise as against the video group (Group 2). The Ed, RPE and ED of this group were higher than group 2, indicating that group3 (internal counting) exercised longer and better than their video counterpart.

Music has been found by many researchers in history to be beneficial to exercise; one of those researches was done by Terry and Karoqeorg his (2006). The study showed that music increased exercise rate in activities like cycle pedaling. Other researchers like Gray (1997); Joyner, (1998) and Thornby, (1995), all found that music increases the exercise output of individuals. This study agrees with these previous researches, in that it showed that music increased rate of exertion, duration and exercise compliance index (output) of subjects.

Researchers (Baurngartner, Schmidt & Jancke, 2006) have studied the effect of video (audio-visuals) on exercise and found that combining music with images actually stimulated parts of the brain thought to complete emotional processing, indicating a positive effect on exercise. In their study, they applied a video footage of sports persons demonstrating mastery and found that it could manipulate self-efficacy of individuals in sports activities. This study, however, has not been able to corroborate the said findings, since it did not involve the use of sports footage; rather, it made use of videos of regular T.V. programs. This goes to show that different types of videos elicit different types of videos of response from exercises. Further research could be carried out in this area in future.

Internal conditioning as a means of coping with exercise duration boredom is a new subject and, therefore, suffers a dearth of literature as to previous research or findings by researchers. In this study, it proved to be effective in combating exercise duration boredom. It is hoped that future research would be carried out in this regard to either support or refute this finding.

CONCLUSIONS

This study discovered that music affected exercise boredom positively; participants were seen to have exercised for nearly the entire duration given throughout the research period. Feedbacks from questionnaires after the programme confirmed that music aroused interest in exercise or in other words put them in the mood for exercise and was able to sustain the mood too. It was found also that video had a slight negative effect on boredom; participants that exercised to audio-visuals did have a slight increase in performance compared to those that exercised with music. This was attributed to the images watched on the TV screen, questionnaires returned showed that participants found it hard to concentrate the whole time on exercise and found themselves giving up at one point or the other.

It was found again that employing internal counting sustained the interest of participants in the exercise programme. The response to questionnaires after the programme showed that participants had a focus on the inside now and were not distracted, their attention was shifted away from the exercise thereby having little or no awareness of the work was done or the time elapsed.

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