

AN ONSITE PHYSICAL FITNESS CENTER FOR FACULTY WELLNESS PROGRAM

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Paper Received: 06.11.2022 / **Paper Accepted:** 21.11.2022 / **Paper Published:** 24.11.2022

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Abstract

The study employed an experimental one-group pretest-posttest design to determine the effectiveness of a physical fitness center in improving the fitness status of the college faculty. Fifteen college faculties were asked to undergo an exercise program with the help of the school's physical fitness center. Fitness performance was identified using the standardized physical fitness test: VO2 Max for cardiovascular endurance, sit and reach for flexibility, and squat for muscular strength. Mean and standard deviation was used to discuss the physical fitness performance of the faculty. Wilcoxon Signed Rank Test was used to obtain the difference between the faculty's pre-test and post-test fitness performance. It revealed a development in the cardiovascular endurance of the faculty after using the physical fitness center. It also showed that the physical fitness status of the faculty in terms of muscular strength and flexibility was excellent before and after using the physical fitness center.

Keywords: Physical Fitness Center, Physical Fitness Performance, Health-related Fitness, College Faculty Fitness Status, Muscular Strength, Cardiovascular Endurance, Flexibility.

Introduction

The pandemic has led teachers to an unpredictable situation where quarantine has shifted from traditional to online educational means. Teachers' well-being is a critical problem for schools and society. Now a day, the teaching profession is one of the most stressful jobs in the US [10]. Teacher stress is linked to teaching performance, which could affect the students' learning too. Furthermore, a teacher needs social, emotional, and mental support to face the pressure being put on them to provide effective teaching in times of pandemic [13].

A random interview of the faculty and staff revealed that most of them have experience muscle pains in the neck and lower back, low resistance in doing physical activities like walking, and even household chores like lifting, carrying, and reaching things. Physical activity is one of the factors that could prevent mental disorders such as anxiety or depression in this situation [3]. The establishment of a physical fitness center inside the university and a wide array of equipment is easily accessible, and a comfortable venue for physical activity or exercise engagement would possibly help the faculty become physically healthy. It is on this premise that the researchers wanted to know the effectiveness of physical fitness center utilization on the physical fitness performance of the faculty.

Statement of the Problem

This study wanted to determine the effectiveness of utilizing the Physical Fitness Center in improving the physical fitness performance of the faculty for the Academic Year 2021-2022.

Specifically, it addressed the following questions:

1. What was the level of physical fitness performance of the faculty before and after the utilization of the physical fitness center along with the health-related fitness components: Cardiovascular Endurance, Flexibility & Muscular Strength?
2. Is there a significant difference in the level of fitness performance of the faculty before and after the utilization of the physical aforementioned-health related fitness components?

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3. Based on the results of the study, what fitness and wellness programs are to be proposed at the end of this study?
4. Based on the results of the study, what training plan may be proposed?

Hypothesis

1. There is no significant difference in the level of fitness performance of the faculty before and after the utilization of the physical fitness center along with the aforementioned-health related fitness components.

Methods/Theory/Calculation

This study employed the one-group pretest-post-test research design. In this research design, the dependent variable is measured once before the treatment is implemented and once after it is implemented [5]. Subjects were known using the purposive sampling technique. The fitness performance of the subjects was assessed using the following standardized physical fitness battery test: VO2 Max for cardiovascular endurance, sit and reach for flexibility, and squat for muscular strength by Topend Sport. It was also used as a reference in the study to identify the normal reference value for cardiopulmonary in the Philippines [6].

Furthermore, the researchers asked the approval from the dean and the vice president for academic affairs to conduct the experiment. After the subjects

of the study were chosen, they underwent orientation, and ethical considerations of anonymity and confidentiality were ensured. Moreover, a medical check-up by the university physician for all subjects was sought to guarantee their safety and that they were ready when performing the exercises in the physical fitness center. Moreover, they undertook a pre-fitness test followed by four weeks of exercise training intervention utilizing the physical fitness center and, finally, the post-test. Four weeks of workouts will have built a significant amount of improvement in the physical fitness components [9].

Ethical consideration of anonymity and confidentiality was emphasized in the study. The subjects were provided a consent form which included agreement and medical doctor approval. It was stipulated and agreed in the consent form that the subjects were free to choose whether to participate, withdraw or leave the study at any point without feeling an obligation to continue. Also, it was discussed that the personal background information of the subjects would remain confidential and would not be included in the paper. Only the subject, with parental consent, was included in the conduct of the study.

Statistical Treatment

Mean and standard deviation was used to answer the descriptive questions, while Wilcoxon Rank Test was used to identify the significant difference.

Results and Findings

Table 1: Fitness Performance of the Faculty Before and After the Utilization of the Physical Fitness Center along the Health-Related Fitness Components: Cardiovascular Endurance, Muscular Strength, and Flexibility

Health Related Fitness Components	Fitness Test	Pre-Test			Post-Test		
		Mean	Interpretation	SD	Mean	Interpretation	SD
Cardiovascular Endurance	VO2 Max	3.86	Average	.915	5.60	Good	.910
Muscular Strength	Squat Test	7.00	Excellent	.000	7.00	Excellent	.000
Flexibility	Seat & Reach Test	6.33	Excellent	1.23	6.73	Excellent	.703

Notes:

Score	Age
6.01-7.00	Excellent
5.01-6.00	Good
4.01-5.00	Above Average
3.01-4.00	Average
2.01-3.00	Below Average

Table 1 shows the fitness performance of the faculty before and after the utilization of the physical fitness center, along with the health-related fitness components. The cardiovascular endurance of the faculty before using the fitness center was average (M=3.86, SD=.915). However, after doing exercise

in the school fitness center, their cardiovascular endurance became good (M=5.60, SD= .910). The result implied that the utilization of the school fitness center helps the faculty to improve their fitness performance in terms of cardiovascular endurance. Those who exercise inside the gym or

fitness center would receive a sixfold greater cardiovascular endurance improvement [14]. In addition, going to the gym every day can help improve your cardiovascular system, strengthen your muscles, help you maintain your weight, boost your mental health, and decrease the odds that you'll develop other health conditions [8].

Moreover, in terms of muscular strength, faculty performance before and after using the school fitness center were both excellent ($M=7.00$, $SD=.000$). It revealed that the muscular strength of the faculty was at its best even before the utilization of the fitness center. In addition, the faculty's flexibility before and after utilizing the school fitness center, the fitness performance was excellent ($M=6.33$, $SD=1.23$) and remained the same after using the fitness center ($M=6.74$, $SD=.703$).

It implies that the school fitness center helps the faculty to maintain their excellent fitness status in terms of muscular strength and flexibility. Thus, the school fitness center is excellent for promoting fitness to all faculty and staff of any institution, regardless of age. Though there was no notable improvement in their flexibility and muscular strength, it still shows that utilizing the school fitness center helps the faculties to improve their health status. Likewise, it was also revealed that using a gym effectively enhances any individual's fitness performance [4]. It was agreed that the gym exercise is advantageous in lowering the risk of obesity for all [7]. Furthermore, it cited that being in the gym regularly can increase balance and flexibility [1]. The workout routine in the gym can increase one's flexibility and strength, which improves balance, especially for seniors.

Table 2: Wilcoxon Signed Rank Test Results for the Significant Difference in the Fitness Performance of the Faculty before and after using the Physical Fitness Center along the Health-Related Fitness Components: Cardiovascular Endurance, Muscular Strength and Flexibility

Indicators	Test	Fitness Center Utilization	Mean Rank	Z-ratio	P
Cardiovascular Endurance	VO2 Max	Before After	0.00 8.00	-3.508**	0.000
Muscular Strength	Squat Test	Before After	0.00 0.00	.000	1.00
Flexibility	Seat & Reach Test	Before After	0.00 2.50	-1.890	0.059

** $p < 0.01$

Table 2 shows a significant difference in the fitness performance of the faculty before and after the utilization of the school physical fitness center in terms of cardiovascular endurance ($Z = -3.508$, $p = 0.000$) at alpha level 0.05. The result implies that regular exercise of the faculty inside the school physical fitness center would help them to enhance their cardiovascular endurance. Likewise, it was revealed that gym exercise effectively develops cardiovascular endurance [12]. Moreover, there was no significant difference in the fitness performance of the faculty before and after the utilization of the school physical fitness center in terms of muscular strength ($Z = .000$, $p = 1.00$) and flexibility ($Z = -1.890$, $p = 0.59$) at alpha level 0.05. The result implies that the physical fitness center does not help improve the faculty's muscular strength and flexibility. In the contrary, which suggests that gym exercise builds muscle mass which makes muscular strength healthier [7].

Discussion

The study revealed a development in the cardiovascular endurance of the faculty after using the physical fitness center. It also showed that the physical fitness status of the faculty in terms of muscular strength and flexibility was excellent before and after using the physical fitness center. No significant changes in the subject's strength and flexibility may suggest a longer training program for better outcomes and development in physical fitness performance in terms of muscular strength and flexibility. Nevertheless, this study suggests that school physical fitness center allows individual to maintain their muscular strength and flexibility. It implies that the school physical fitness center is an excellent facility for improving and maintaining the physical fitness status of the teachers.

Conclusion

1. The onsite physical fitness center utilization effectively develops the faculty's physical fitness in terms of cardiovascular endurance.

2. The onsite physical fitness center maintains the faculty's muscular strength and flexibility.
3. The onsite physical fitness center is one of the best avenues for improving cardiovascular endurance and maintaining the faculty's muscular strength and flexibility.

Recommendations

1. Faculty and staff are encouraged to utilize the school physical fitness center to improve and maintain their physical fitness and health status.
2. Other colleges and universities are encouraged to have a physical fitness center for the faculty and students to plan and achieve their fitness goals.
3. Moderate to high-intensity exercises must be undertaken in the physical fitness center among the faculty to enhance or maintain the physical fitness performance of the faculty.
4. Longer training programs must be implemented by the trainers inside the physical fitness center to see the improvement of other physical fitness components.

Conflict of Interest

The author(s) certify that they have no conflict of interest in the subject matter or materials discussed in this manuscript. We certify that the article is the Authors' original work. The article has not received prior publication and is not under consideration for publication elsewhere. On behalf of all Co-Authors, the corresponding Author shall bear full responsibility for the submission. This research has not been submitted for publication nor has it been published in whole or in part elsewhere. We attest to the fact that all Authors listed on the title page have contributed significantly to the work, have read the manuscript, attest to the validity and legitimacy of the data and its interpretation, and agree to its submission to Globus Publication.

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