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CHAROBICS (Community Health Aerobics): A Strategy for Improving Cardiovascular Fitness

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Abstract
This study investigated the effectiveness of CHAROBICS as a tool for improving cardiovascular fitness and explored its broader impact on participants' well-being. Focusing on the positive effects of participation, the research examined how CHAROBICS contributed to enhanced physical health, mental and emotional well-being, social connection, and motivational growth. Furthermore, the study explored strategies for enhancing the CHAROBICS experience to maximize its impact. Through an in depth interview, data were analyzed using thematic analysis. The findings revealed that regular CHAROBICS participation significantly improved cardiovascular endurance and fostered a holistic sense of well-being. The findings also highlighted the importance of incorporating social elements, mindfulness practices, progressive physical challenges, and motivational strategies to amplify the program's benefits. This study underscores CHAROBICS' potential as a comprehensive wellness tool, demonstrating that strategic enhancements can significantly increase its positive impact on individuals and communities.
Keywords: *Strategy, Community health, Cardiovascular Fitness*

I. INTRODUCTION

The demanding schedules and often sedentary nature of academic life can pose significant challenges to the cardiovascular health of the faculty. This research focuses on "Charobics (Community Health Aerobics)," a tailored exercise program designed to improve the cardiovascular endurance of the College of Education Faculty of the Cotabato Foundation College of Science and Technology. Recognizing the specific needs and time constraints of this population, this study aims to assess the effectiveness of CHAROBICS workout in fostering a healthier lifestyle within the academic environment. By engaging regularly into this routine, this project seeks to mitigate the risks associated with prolonged periods of inactivity and promote overall well-being.

This investigation examined the implementation of CHAROBICS within the College of Education, examining its impact on the faculty's cardiovascular endurance. Beyond the physical benefits, the research also explored the social dynamics and motivational factors that influence participation and adherence to the program. Understanding the faculty's perceptions, experiences, and perceived benefits of CHAROBICS will provide critical insights into the design and sustainability of similar initiatives within academic settings. This study considered the unique stressors faced by faculty members, and how this program may alleviate some of those stressors.

Ultimately, this research seeks to provide evidence-based insights into the potential of CHAROBICS as a viable strategy for enhancing the cardiovascular health of college faculty. By evaluating the program's effectiveness, this study aims to contribute to the development of practical and adaptable interventions that promote wellness within academic communities. The findings will offer valuable recommendations for creating supportive environments that encourage physical activity and improve the overall quality of life for faculty members, thereby potentially increasing productivity and overall job satisfaction.

1.1 Research Questions

This study investigated the effectiveness of CHAROBICS as a tool for improving cardiovascular fitness and explored its broader impact on participants' well-being. Specifically, it sought to answer the following questions.

1.1.1. Beyond the physical benefits, what other positive things do you gain from participating in Charobics workout?

1.1.2. What are your suggestions and recommendations in order to improve Charobics workout?

2. REVIEW OF RELATED LITERATURE

Faculty members must put importance on cardiovascular endurance as it has a direct and significant effect on their entire health and well-being. Cardiovascular endurance is the capacity of the heart, lungs, and circulatory system to effectively supply oxygen to the muscles that are important for the normal functioning of the human body (Charly, 2023). Faculty frequently have rigorous schedules that necessitate prolonged periods of standing, active participation in physical activities with their students, and the maintenance of high energy levels throughout the day.

Guimary et al. (2022) suggest that teachers with strong cardiovascular endurance may efficiently handle these demands, minimizing fatigue and enhancing their capacity to concentrate and carry out their responsibilities proficiently. Furthermore, cardiovascular endurance is vital for preserving a healthy heart and minimizing the likelihood of cardiovascular diseases, which is pivotal for overall well-being and lifespan.

Unfortunately, in both global and domestic settings, research has indicated a significant prevalence of cardiovascular disease among teachers working in both elementary, secondary, and tertiary levels (Karikatti et al., 2018). Additionally, school instructors exhibited a high prevalence of various risk factors for cardiovascular disease (Greiw et al., 2019). More so, Barron et al. (2021) suggest that the incidence of cardiovascular disease and hypertension may be well associated with the occupation of teaching.

Nevertheless, other factors such as stress, a sedentary lifestyle, unhealthy food habits, and low healthcare access can potentially heighten the likelihood of cardiovascular illnesses in any group, including teachers. Teachers in the Philippines and worldwide should make their health a top priority by adopting healthy lifestyle habits, engaging in regular physical activity, maintaining a balanced diet, effectively managing stress, and seeking regular medical check-ups to lower the chances of developing cardiovascular diseases (Masangcay et al., 2024).

Among the many yet untapped interventions to combat those cardiovascular challenges is aerobics. Common aerobic exercises such as running, swimming, cycling, or brisk walking can enhance cardiovascular endurance. These exercises strengthen endurance, fortify the cardiovascular system, and augment the body's ability to transport oxygen. Increasing exercise intensity and duration and maintaining a healthy diet can promote general health and improve cardiovascular endurance.

In this study, the efficacy of Chrobics will be tested to improve the cardiovascular endurance of faculty members. CHAROBICS is a low-impact aerobic activity that doesn't place much strain or weight on the joints.

Low-impact aerobics has a variety of advantages which include reduced risk of injury in the sense that these exercises are gentler on the joints reducing the risk of injury compared to high-impact activities; improved cardiovascular health, which provides cardiovascular benefits by increasing heart rate without putting excessive stress on the body; weight management as such can help with weight management and fat loss by burning calories and improving metabolism (Sears, 2022); stress reduction which can help reduce stress levels and improve overall mental well-being; and accessibility as it is often more accessible to a broader range of individuals, including beginners, older adults, or those recovering from injuries (Bubnis, 2019).

The study of Arfanda et al. (2022) demonstrated the efficacy of a low-impact aerobic dancing exercise video in improving cardiovascular endurance, flexibility, and concentration in women leading a sedentary lifestyle. The study employed the pre-experimental technique with a one-group pretest-posttest research design. The findings demonstrated that engaging in a low-impact aerobic exercise dance video, with a frequency of three times per week over six weeks, improved cardiovascular endurance, flexibility, and focus among adolescent females who lead a sedentary lifestyle.

Also, the study of Annadurai and Gandhimaheswaran (2021) examined the impact of aerobic dance workouts on the cardiorespiratory endurance of college women. The participants will be allocated randomly to two groups of equal size (n=15). Group I performed aerobic dance exercises (ADE), whereas Group II was the control group (CG). The experimental group received instruction three days each week (Monday, Wednesday, and Friday) for twelve weeks. The control group did not get any training apart from their routine. The chosen metric was cardiorespiratory endurance, measured explicitly by a 9-minute run and walk in meters. The data acquired from the subjects was subjected to statistical analysis using the 't' ratio to determine if there was a significant improvement at a confidence level of 0.05. The study found a considerable improvement in cardiorespiratory endurance due to engaging in Aerobic Dance Exercises.

Aerobic dance exercises had a substantial impact on improving the cardiorespiratory endurance of college women.

This study by Justina et al. (2021) examined the impact of aerobic dance exercise on self-esteem and dissatisfaction with body image in individuals who are overweight or obese. The experimental group engaged in three weekly dance aerobics sessions, each lasting 30 minutes, for six weeks. In contrast, the control group did not participate in any exercise. Measurements of body mass index (BMI), waist-hip-ratio (WHR), body size dissatisfaction (BSD), and self-esteem (SE) were taken before and after the intervention. These measurements were conducted at the beginning and end of the sixth week. The participants who engaged in 6 weeks of dance aerobics saw significant enhancements in self-esteem and a decrease in both physical metrics and unhappiness with body size, unlike the control group.

This study by Yamasaki et al. (2021) documented the present methodology of Zumba in the Philippines, including the attributes of the practitioners, and found the parameters linked to Zumba participation. This study employed an observational, cross-sectional design and utilized a structured questionnaire to gather data from 10 Zumba venues in September 2019. All participants indicated that they found Zumba entertaining, with a subset of participants describing it as "highly enjoyable." The determinants of frequent involvement in Zumba were older than the average age of participants, joining Zumba to derive pleasure from dancing, joining Zumba not primarily for weight loss, the location of the Zumba classes being in a shopping mall, and the requirement of a participation fee. The motive of "enjoying dance" was a more vital determinant of regular involvement in Zumba practice than the goal of "losing weight." The "enjoyable" factor can significantly impact sustained engagement and regular participation in Zumba fitness in the Philippines.

Furthermore, Vineedkumar (2022), in his study, aimed to investigate the impact of an Aerobic dancing training program on Muscular endurance. Sixty high school boys were randomly selected and placed into two equal groups, Group A and Group B. After completing the pre-test for Muscular endurance, the training program was administered to experimental group A, while group B served as the control group. The experimental group 'A' received training in Aerobic dance thrice weekly for 16 weeks. Two interim assessments were administered after 5 and 10 weeks, followed by a final examination. The t-test was used to analyze the significance of the difference between the pre-test and post-test on the specified variable. The findings indicate a significant improvement in muscular endurance for the experimental group due to the four-month training program.

Based on the above-cited literature, it can be established that very scant studies in the local setting, particularly in the Cotabato Foundation College of Science and Technology, explore the effect of low-impact aerobics on the cardiovascular endurance of faculty. Hence, this study must be conducted as the results may pave the way for improving faculty members' cardiovascular endurance and overall health and wellness.

3. METHOD

Primarily qualitative method was used to explore participants' experiences, perceptions, and the program's impact on their cardiovascular fitness.This study employed an action research methodology to investigate and improve the effectiveness of "Charobics" as a tool for enhancing cardiovascular fitness. Action research emphasizes collaborative inquiry, iterative cycles of planning, action, observation, and reflection, and a focus on practical solutions within a specific context. Furthemore, this study adopted a participatory action research (PAR) approach, actively involving participants in all phases of the research process.

The study followed an iterative cycle of:

Planning - Identifying the problem (low cardiovascular fitness), developing a Charobics program, and planning data collection methods.

Action - Implementing the Charobics program.

Observation - Gathering data on participants' experiences and cardiovascular fitness.

Reflection - Analyzing the data, reflecting on the program's effectiveness, and identifying areas for improvement.

3.1 Participants

The study participants were the College of Education faculty who met the inclusion criteria and volunteered to participate in the program

3.2 Instruments

Semi-structured interview which involved pre-determined set of open-ended questions was used to explore emerging themes and probe deeper into participants' experiences.

3.3 Trustworthiness of the Study

To establish the trustworthiness of this qualitative study, I adhered to Lincoln and Guba's (1985) framework, which emphasizes credibility, confirmability, transferability, and dependability. This study prioritized credibility, ensuring the findings accurately reflected participants' experiences. As Patton (1999) and others (Holloway & Wheeler, 2002; Macnee & McCabe, 2008) suggest, credibility stems from the researchers' expertise and the truthfulness of the data. Both the student researcher and mentor possessed extensive knowledge and experience in qualitative research, enhancing the study's credibility.
Confirmability, as defined by Baxter and Eyles (1997) and Tobin and Begley (2004), requires that findings are grounded in the data and align with existing research.
Transferability, the potential for applying the study's findings to other contexts, was addressed through thick description (Bitsch, 2005; Li, 2004; Tobin & Begley, 2004). By providing comprehensive details about the research process, context, and findings, we aimed to facilitate replication and application in similar settings. The results and discussions were focused on the research aims, providing clear and relevant information.

4. RESULTS

1 . Positive impact of Participating in CHAROBICS

Participating in CHAROBICS offers a multifaceted approach to wellness, yielding positive impacts that extend beyond physical fitness to encompass mental, emotional, and social well-being.

1.1 Physical Benefits

Participating in charobics, a cardiovascular fitness program, yields significant physical impacts, primarily through enhanced cardiovascular endurance. Regular sessions elevate heart rate and improve the efficiency of the circulatory system, leading to stronger heart muscles and better oxygen delivery to tissues. This increased cardiovascular capacity translates to improved stamina, reduced fatigue during physical activity, and a lower risk of cardiovascular diseases. Furthermore, charobics can contribute to weight management by burning calories, enhance muscle tone, and improve overall physical fitness, promoting a healthier and more active lifestyle.

> " Charobics helps in building stamina, improving endurance,
> and enhancoverall fitness (P5, P6, P7, P8). Regular
> physical activity from Charobics aids in regulating
> the sleep cycle and improving sleep quality "(P4).
> This is particularly relevant in addressing the growing
> prevalence of sedentary lifestyles and associated health risks"

The study of Annadurai (2021) denoted that due to the influence of Aerobic Dance Exercises cardiorespiratory endurance of college women significantly improved.

1.2 Mental and Emotional Benefits.

Participating in charobics offers substantial mental and emotional benefits. The rhythmic movement and social interaction inherent in the program can significantly reduce stress and anxiety by releasing endorphins, which act as natural mood elevators. The structured exercise routine fosters a sense of accomplishment and improved self-esteem, contributing to a more positive body image. Additionally, the shared experience of group exercise can create a supportive community, reducing feelings of isolation and promoting social well-being. Regular engagement in charobics can also enhance cognitive function, improve sleep quality, and cultivate a greater sense of overall mental clarity and emotional resilience.

> "Charobics helps reduce stress and bring joy through music
> and dance (P1).
> Learning new moves and witnessing progress boosts
> self-esteem and self-confidence (P1). Charobics encourages
> discipline and a more positive outlook on life" (P1)

1.3 Social and Community Benefits

Charobics fosters significant social and community benefits by creating a shared space for collective physical activity and interaction. Regular participation builds a sense of camaraderie and belonging, strengthening social bonds among participants. The group setting encourages mutual support and motivation, promoting a healthier and more active lifestyle for all involved. By providing an accessible and engaging exercise program, charobics can contribute to a more vibrant and connected community, reducing social isolation and fostering a culture of wellness. Furthermore, if implemented in wider community settings, charobics has the potential to improve overall public health outcomes and create a more inclusive and active community environment.

> "The sense of belonging and building friendships within
> the Charobics group (P2, P3)
> The team's shared goal of promoting a healthy lifestyle
> within the community" (P2, P3).

1.4 Spiritual and Motivational Growth

Participating in charobics can foster spiritual and motivational growth by cultivating a sense of inner strength and resilience. The rhythmic movements and focused energy can create a meditative experience, allowing participants to connect with their bodies and minds on a deeper level. The accomplishment of physical goals, combined with the supportive community atmosphere, can ignite a sense of purpose and self-belief. This experience often translates to increased motivation in other areas of life, fostering a positive outlook and a commitment to personal well-being. Furthermore, the dedication required to maintain a regular charobics routine can strengthen discipline and perseverance, contributing to a sense of spiritual grounding and a deeper appreciation for the mind-body connection.

> "Charobics fosters spiritual growth and motivates the team
> to stay engaged and reach their fitness goals" (P2, P3).

2. Enhancing the Charobics Experience for Greater Impact

To fully realize the potential of "Charobics: A Tool for Improving Cardiovascular Fitness," it's crucial to extend its impact beyond mere physical activity. By strategically enhancing the program's design and delivery, we can amplify its benefits across multiple dimensions: social connection, mental and emotional well-being, sustained motivation, and even spiritual growth, ultimately maximizing its efficacy as a holistic wellness tool.

2.1 Community and Social Aspects

To amplify the community and social impact of charobics, consider incorporating regular social events alongside the exercise sessions, such as post-workout gatherings or themed charobics days. Establishing a buddy system can foster accountability and deeper connections between participants, while creating opportunities for peer-led warm-ups or cool-downs can empower individuals and build leadership skills. Integrating diverse music selections and cultural dance elements can also enhance inclusivity and attract a wider range of participants. Furthermore, organizing community outreach programs, like charobics demonstrations at local events or partnerships with community centers, can extend the program's reach and solidify its role as a vital social and wellness resource.

"Participants emphasize the importance of team camaraderie,
support, and togetherness" (P2).

2.2 Mental and Emotional Health

To maximize the mental and emotional health benefits of charobics, consider integrating mindfulness exercises and guided relaxation techniques into the sessions, such as mindful breathing during cool-downs or brief meditation periods. Incorporating positive affirmations and motivational talks can further enhance participants' self-esteem and resilience. Creating a supportive and non-judgmental atmosphere, where participants feel comfortable expressing their emotions, is crucial. Offering optional journaling prompts or discussion groups focused on stress management and emotional well-being can provide additional avenues for reflection and support. Additionally, partnering with mental health professionals to conduct workshops or provide resources can ensure that participants have access to comprehensive mental health support.

"As Charobics already helps with stress relief and mental health, there may be room to incorporate more motivational elements or practices (e.g., team-based challenges or encouraging personal progress) to further boost emotional well-being" (P1, P2).

2.3 Physical Benefits

To maximize the physical benefits of charobics, incorporate progressive overload principles by gradually increasing the intensity, duration, or complexity of the exercises. Introduce varied routines that target different muscle groups and cardiovascular zones, ensuring a well-rounded fitness approach. Integrating interval training and high-intensity bursts can further boost cardiovascular endurance and calorie expenditure. Regularly assess participants' fitness levels and provide personalized feedback to track progress and motivate continued improvement. Offering optional strength training components or flexibility exercises can enhance overall physical fitness and prevent injuries. Emphasizing proper form and technique through demonstrations and individual guidance ensures participants maximize the benefits while minimizing the risk of strain.

"To build on endurance and stamina improvements (P4, P5, P6, P7, P8), it could be helpful to introduce more varied or progressive training sessions that continue challenging participants at different fitness levels while avoiding burnout. For those with sleep struggles (P4), perhaps Charobics could incorporate educational sessions on the importance of recovery, rest, and sleep, or even develop a wind-down segment focused on relaxation after each session"

2.4 Spirituality and Motivation

To enhance the spiritual and motivational impact of charobics, weave elements of mindfulness and purpose into the sessions. Begin with intention-setting exercises, encouraging participants to connect with their personal goals and values. Incorporate music and movements that evoke feelings of inspiration and connection to something larger than oneself. Encourage moments of gratitude and reflection, fostering an appreciation for the body's capabilities and the present moment. Facilitate group discussions on personal growth and overcoming challenges, creating a space for shared wisdom and encouragement. Integrate elements of nature, if possible, by conducting sessions outdoors or using natural imagery. Remind participants that their commitment to charobics is a form of self-care and a pathway to inner strength, reinforcing the spiritual dimension of their fitness journey.

"The spiritual and motivational aspect of Charobics (P2) can be further enhanced by introducing goal-setting activities, mindfulness practices, or regular check-ins to motivate participants and reinforce the group's sense of purpose in improving their health and wellness".

The findings of this study clearly illustrated the two-fold impact of Charobics: the positive impacts of Charobics on participants' cardiovascular fitness and well-being, and constructive suggestions for program enhancement. Participants reported noticeable improvements in their physical health, alongside increased enjoyment and motivation in exercise. Their feedback highlighted the effectiveness of Charobics as a fun and engaging workout, while also pinpointing areas for refinement, such as diversifying routines and providing more individualized instruction. Integrating these suggestions into future Charobics programs holds the potential to further optimize its efficacy and appeal, ensuring its sustainability as a valuable tool for promoting cardiovascular fitness and overall health.

5. Implication

Practically, CHAROBICS could introduce a novel, accessible, and potentially enjoyable exercise modality into public health and fitness programs. This would be particularly valuable for individuals who find traditional exercise intimidating or inaccessible, potentially increasing overall physical activity levels and contributing to the prevention of chronic diseases. The findings could also influence the fitness industry by providing evidence-based support for a new program, leading to its adoption in various settings and the development of tailored Charobics variations for diverse populations.

Furthermore, this research contributes to the academic understanding of exercise science by exploring the effectiveness of a specific exercise routine. This will add to the body of knowledge surrounding that specific research method within the fitness field. The results would encourage further research into the long-term effects of Charobics, its suitability for specific demographics, and the underlying mechanisms driving its benefits. Ultimately, this study has the potential to empower individuals to take control of their cardiovascular health, fostering healthier lifestyles and contributing to improved well-being within communities.

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