BARRIERS AND FACILITATORS TO ENGAGING IN REGULAR PHYSICAL EXERCISE AMONG UNDERGRADUATE LAW STUDENTS OF THE UNIVERSITY OF BENIN

BY

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IN PARTIAL FULFILLMENT OF THE AWARD OF THE DEGREE BACHELOR OF NURSING SCIENCE, FACULTY OF NURSING SCIENCE, UNIVERSITY OF BENIN, BENIN CITY.

NOVEMBER, 2025.

CERTIFICATION

This is to certify that this research project titled "**BARRIERS AND FACILITATORS TO ENGAGING IN REGULAR PHYSICAL EXERCISE AMONG UNDERGRADUATE LAW STUDENTS OF THE UNIVERSITY OF BENIN**" was carried out by ANENE FAVOUR OLISEHMEDUA with matriculation number BMS2005060 in the Faculty of Nursing Science, under the supervision of Sr. Joan N. Chukwurah**.**

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Supervisor **Sign & Date**

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Head of Department **Sign & Date**

……. _____

External Examiner

Sign & Date

DEDICATION

This project work is dedicated to the ALMIGHTY GOD who has been my constant source of help and strength in my academic journey. To my beloved Parents, Mr. & Mrs. Anene, whose unwavering support both financially and morally has kept me outstanding and fostered success all through my academic year.

ACKNOWLEDGMENT

I express my heartfelt gratitude to the ALMIGHTY GOD for His abundant grace, wisdom, and strength throughout this research journey.

I thank my supervisor, Sr. Joan N. Chukwurah for her stress-free expert guidance, mentorship, and valuable insights in my research study. I also extend my gratitude to the Dean of the Faculty, Prof. F. U. Okafor, the HODs, Prof. (Mrs.) C. E. Omorogbe, Prof. (Mrs.) R. E. Esewe, Prof. (Mrs.) J. A. Afemikhe, my invaluable course adviser, Dr. (Mrs.) N. E. Oyana and to all my lecturers Dr. (Mrs.) Enuku, Dr. T. A. Ehwarieme, Mrs. C. Edo-Osagie, Mrs. R. Lawal, Mrs. Ekhuobase, Mrs. F. Esebahme, Mr. Aragua and Mrs. Osadolor for their valuable knowledge, support, and encouragement through my course of study in the department.

I also express my deepest gratitude to my amiable parents, Mr. Ifechukwude and Mrs. Olubukola Anene, and my siblings (F_2E_2) for their unwavering support, encouragement, and love.

Finally, I appreciate my friends, Christopher and Gabriel, and everyone who contributed to the success of this study in one way or the other. This study would not have been possible without the contributions of numerous individuals who have supported me throughout this research journey. I extend my sincere appreciation to everyone who has played a role in shaping this study, from the participants who shared their experiences to the healthcare professionals who provided valuable insights. I am grateful for the guidance of my supervisor, the support of my family and friends, and the expertise of my lectures. Thank you all for your time, effort, and encouragement. Your contributions have been invaluable, and I am honoured to have had the opportunity to work with each and every one of you.

Abstract

This study assessed the barriers and facilitators that influence undergraduate law students' engagement in regular physical exercise. A descriptive cross-sectional survey design was employed for this research. The study population comprised of 265 students selected using convenience sampling technique from the Faculty of Law. A self-administered, structured questionnaire organized into four sections: demographic data, current physical exercise patterns, barriers, and facilitators to engaging in regular physical exercise, was the primary and only data collection tool. The analysis of the data collected revealed that lack of energy, lack of motivation, and time constraints due to academic workload were perceived as most significant barriers to engaging in regular exercise. "Lack of awareness" being significant barrier suggested that students were aware of the benefits of physical exercise but struggle with exercise adherence. The most significant facilitators were identified to be "Having a strong desire to be physically active and health", "Feeling energetic and motivated", and "Good physical health and absence of injuries", all of which are intrinsic and health-focused. The majority of students that engage in regular physical exercise report walking (85.2%) as their most frequent form of physical exercise followed by running (32.8%), suggesting a preference low cost exercise that can be integrated in their daily routine. The study used the independent t-test find no significant relationship between the students' level of knowledge about the benefits of physical exercise and their engagement in regular physical exercise ($p = 0.515$), failing to reject the null hypothesis. The finding that knowledge is not a significant facilitator of exercise adherence suggests that health promotion interventions must shift to behavioural strategies that address motivation, time management, and overcoming mental and physical fatigue.

***Keyword*:** regular physical exercise, barriers, facilitators, undergraduate law students

TABLE OF CONTENTS

List of Tables

List of Figures

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Physical exercise or workout refers to a range of bodily activities that are organised and repeated with the aim of improving or maintaining physical fitness, general health and wellness. These activities may be engaged in to not only improve health and fitness but for other purposes like transportation. These activities involve medium to high energy expenditure by the skeletal muscles for an extended period of time so they count as physical exercise (Miller, 2020). Padhan and Mohapatra (2023) define physical exercise as a class of planned and structured physical activity that is intentionally engaged in for the benefit of promoting health and maintaining physical fitness. It is important to note that physical exercises are important for attaining good health. In fact, the Canadian Society for Exercise Physiology (CSEP) (2024) recommends that moderate exercise should be done for at least five hours a week by every able adult.

Over the years there has been an increased awareness about the importance and benefits of exercise. However, research shows that 31% of adults and 80% of adolescents do not meet the recommended levels of physical exercise (World Health Organisation [WHO], 2024a). Research done by Okeke et al. (2020) to assess the level of physical exercise among undergraduate law students in South-east Nigeria showed that majority of the students (86%) had good knowledge and attitude towards engaging in physical exercise but only 3.8% exercised 3-5 times a week.

Currently there are limited studies that show the correlation between physical exercise duration, academic performance, mental health, physical fitness and cognitive abilities. However numerous studies have shown that engaging in regular physical exercises promotes academic performance among students. A study on Chinese students by Liu et al. (2023) revealed that maximum

improvement in academic performance was recorded when males exercised for 2 hours and females exercised for an hour daily. This result enables students to engage in physical exercise to improve cognitive abilities based on scientific rationale, and it backs up the results of a study done earlier (Coe et al., 2006) that showed that engaging in physical exercises outside physical education class significantly impacts academic performance. Regular exercise regulates the internal body clock to promote healthier sleep patterns and optimal sleep quality which in turn improves mental abilities, including sharper problem solving, focus, and memory (Zhao et al., 2020; Wang, 2021). Other benefits of exercises are weight control, improved gut health, strengthened immune system, reduced risk of developing cardiovascular disease, improved quality of life and life expectancy, improved mental health and overall wellbeing (Miller, 2020; Ibrahim, 2023; Gholamalishahi et al., 2023).

Presently health conditions associated with lack of physical exercise such as obesity and overweight affects at least one-third of the global population and is predicted to affect more than half of the global population by 2030. Along with lack of regular physical exercise, these conditions are also attributed to increased rate of unhealthy eating and improper stress management which are common features of the lifestyle of undergraduate students especially those in departments associated with perceived high academic stress (Kumar et al., 2022; Gosse et al., 2023).

Studies have shown that there is an increasing prevalence in the level of unhealthy lifestyle behaviours that increase the risk of developing non communicable diseases (NCDs) among the youths of low and middle-income countries of which Nigeria is among (WHO, 2024b). The major risk behaviours observed among undergraduate students are lack of regular physical exercise followed by unhealthy dietary habits, alcohol consumption and tobacco use. These, in the long run, are linked to the development of chronic NCDs such as hypertension, diabetes, cancers, heart attacks, stroke, chronic obstructive pulmonary disease (COPD) that lead to increased morbidity and mortality

rates which can overwhelm the already burdened Nigerian health care system (Onwasigwe et al., 2024).

According to Deel (2024), there are 3 main hurdles to be overcome in order to become a lawyer. They are: getting into law school, getting through law school and passing the bar exam. However, getting into law school in Nigeria requires earning and obtaining a Bachelor's degree in Law (LL.B.) in an accredited university first, then applying to a Law school. University students in Nigeria often experience high levels of stress mainly as a result of academic demands and expectations, financial issues, and social and adjustments challenges in the university environment. The students may not be able to manage these issues properly and may develop anxiety, depression and other mental health disorders that can affect their wellbeing and academics (Obilade et al., 2024).

1.2 STATEMENT OF THE RESEARCH PROBLEM

Undergraduate students represent a critical population that is targeted for promoting lifelong health behaviours, yet they face unique challenges in maintaining adequate levels of physical exercise which is essential for good health. Studies indicate a stealthy increase in sedentary behaviours and lack of physical exercises among adolescents and youths globally as many of them fail to meet the recommended physical exercise guidelines (Guthold et al*.,* 2020; WHO, 2024a).

There is an increasing incidence in the diagnosis of type 2 diabetes in young adults. Kim et al. (2025) reports that the prevalence rate of type 2 diabetes mellitus among young adults from 2010 to 2020 increased significantly from 1.02% to 2.02% ($p<0.001$) and the prevalence rates were consistently higher in men (1.22%). Although this trend is less prevalent in rural regions of the world like India and Nigeria, lifestyle behaviours common among young adults especially in stressful environments like the university play an undeniable role in increasing the risk of developing type 2 diabetes even

while in their youth. Some of these behaviours are lack of regular physical exercise, consuming processed foods that are high in fat, sugar, and sodium (fast food and snacks), and lack of adequate sleep (Murtaza et al., 2024).

Individual factors such as gender, age, health status along with lack of time, level of motivation, cultural expectation of physical appearance, and body image may influence participation in exercises as a barrier or facilitator. For instance, male students show more involvement in physical exercises than the females (Kumar et al., 2022). This research investigates the multifaceted nature of these facilitators and barriers to provide a holistic understanding of the challenges and opportunities to promote physical exercise among undergraduate Law students of the University of Benin.

1.3 OBJECTIVE OF THE STUDY

The broad objective of the study is to identify the barriers and facilitators to engaging in physical exercise among undergraduate Law students of the University of Benin (UNIBEN), Benin City, Edo State.

Specific Objectives

1. To assess the knowledge of undergraduate Law students of the University of Benin towards engaging in physical exercise.
2. To assess the attitude of undergraduate Law students of the university of Benin towards engaging in physical exercise
3. To identify the barriers that prevent undergraduate Law students of the University of Benin from participating in regular workout sessions.
4. To determine the facilitators that promote the engagement of undergraduate Law students of the University of Benin in regular physical exercise.

1.4 RESEARCH QUESTIONS

1. What is the level of awareness of benefits of engaging in regular physical exercise among undergraduate Law students of the University of Benin?
2. What percentage of undergraduate Law students of the University of Benin engage in regular physical exercise?
3. What are the barriers that hinder undergraduate Law students of the University of Benin from engaging in physical exercise?
4. What are the facilitators needed by undergraduate Law students of University of Benin to engage in physical exercise?

1.5 RESEARCH HYPOTHESIS

1. The level of knowledge of the benefits of participating in physical exercise is not a significant facilitator to engaging in physical exercises among undergraduate Law students of the University of Benin.

1.6 SIGNIFICANCE OF THE STUDY

Research has tended to focus on the benefits of physical exercise and the percentage of people that engage in physical exercise rather than identifying the factors that affect people's engagement in physical exercise. This study will add to the body of knowledge of the nursing profession and other health-related profession by identifying the barriers and facilitators that influence undergraduate students' engagement in physical exercises. By identifying the barriers and facilitators to engaging in physical exercise, nurses and other healthcare providers are able to plan and implement appropriate strategies for the provision of primary level of care, health promotion to undergraduate students. The University of Benin can also utilize the knowledge derived from this study to establish measures to

ensure that students of the institution attain and maintain healthy living by engaging in regular physical exercise.

1.7 SCOPE OF THE STUDY

This study seeks to discover the facilitators and barriers that influence second year to final year undergraduate Law students of the University of Benin (UNIBEN) engagement in regular physical exercise.

The research is limited to the aforementioned institution within Benin City, Edo State, Nigeria.

1.8 OPERATIONAL DEFINITION

Attitude: is what the students think and how they feel about regular physical exercise.

Barriers: refer to a group of factors that hinder undergraduate law students from engaging in regular physical exercise.

Facilitators: refer to factors that motivate undergraduate law students to engage in regular physical exercise.

Physical exercise: is any activity or combination of activities intended to improve physical fitness and health.

Regular physical exercise: refers to engaging in 150 to 300 minutes of moderate intensity physical exercise or 75 to 150 minutes of vigorous intensity exercise per week.

Undergraduate Law students: are second year to final year students enrolled in the department of Law, University of Benin to obtain the Bachelor of Law degree (LL.B.).

CHAPTER TWO

LITERATURE REVIEW

This chapter explores the existing body of knowledge regarding the barriers and facilitators that influence physical exercise engagement among undergraduate law students. This review of literature related to the study is under the following headings: conceptual review, theoretical review and empirical review.

2.1. Conceptual Review

2.1.1 Concept of Physical Exercise

Physical exercise encompasses bodily activities that enhance or maintain physical fitness and overall health. Regular physical exercise is important for good health and well-being because of its numerous benefits which include improved mental abilities including sharper problem solving, focus, and memory; better stress management, and healthier sleep patterns (Zhao et al*.,* 2020; Wang, 2021).

Types of Physical Exercise

According to Miller (2020), there are three forms of physical exercise based on the involvement of the muscles and the bodily effects. They are:

1. Aerobic exercise: also referred to as endurance or cardio, is any physical activity that involves using the body's large muscles for sustained low intensity activities such as swimming, bicycling, brisk walking, roller skating, dancing, hill or staircase climbing. The muscles involved are known as slow twitch or type-I muscles fibres. They are highly efficient at using oxygen to generate energy and resist fatigue for prolonged muscle contractions.
2. Anaerobic exercise: also referred to as strength training, resistance training, or muscle strengthening exercise, is any physical activity that involves maximum muscle contractions for a relatively short duration such as push-ups, sprinting, jumping, squats, weight lifting. The white fibres, fast twitch, or

type-II muscle fibres are responsible for these activities, which require bursts of power and speed. They however rely on anaerobic metabolism, and thus experience fatigue easily.

3. Flexibility exercise: refer to physical activities that stretch the muscles, improve the range of motion or flexibility of joints, tone the muscles, and enhance body alignment and balance. These exercises include yoga, stretching, Pilates, ballet dancing.

Another type of physical exercise is bone strengthening activity. This is also known as weight bearing or weight loading exercise and it is any physical activity that puts stress on the bone by causing the body's weight and muscles to push against the bones by activities such as jumping, weight lifting, squats, brisk walking, stair climbing, team sports like basketball and volleyball. The impact of these activities on the bone stimulates the bones to grow denser and stronger, and thus prevent primary osteoporosis (Chang et. al., 2022).

According to the United States of America Centers for Disease Control and Prevention (CDC) (2023), physical exercise can be further categorized into moderate intensity or vigorous intensity depending on how hard your body works during the activity.

1. Moderate intensity exercise: This kind of exercise consists of activities that cause you to breathe hard and may cause sweating and allow talking but not singing while doing them. Some of these are brisk walking, swimming, roller skating, cycling, slow dancing, stretching and table tennis.
2. Vigorous intensity exercise: This comprise of activities that cause you to breathe harder, sweat a lot, increase your heart rate. These activities are marked by breathlessness and the need to catch a breath to be able to speak more than a few words as intense energy is required for these activities. Jogging, running, skipping, swimming laps, jumping, weight lifting and sports like football are examples of vigorous intensity exercise.

2.1.2 Benefits of Physical Exercise to Undergraduate Law Students

1. Aerobic exercise plays an essential role in both primary and secondary prevention of cardiovascular diseases (CVD) by improving cardiorespiratory fitness and reducing metabolic risk factors for noncommunicable diseases (NCDs).

Primary Prevention:

Risk factor reduction: Aerobic exercise helps to control and reduce the metabolic risk factors of cardiovascular diseases which are raised blood pressure, elevated blood lipids, increased blood glucose, and obesity, thus reducing the risk of developing CVDs (Lee et al., 2021, Brown et al., 2021).

Improved Cardiorespiratory Fitness: Aerobic exercise causes the lungs to deliver more oxygen while eliminating carbon (IV) oxide as the heart pumps more blood, causing an increase in breathing rate and intensity, and heart rate. This, with consistency over time, enhances coronary circulation, improves the endurance and health of the lungs, heart, and circulatory, and reduces vascular inflammation. This contributes to improved cardiorespiratory fitness and a healthier cardiovascular system.

Secondary prevention:

Cardiac Rehabilitation: Cardiac rehabilitation programs include exercise rehabilitation to help improve quality of life, control cardiac risk factors and reduce the risk of cardiovascular events in patients with CVD. Exercise can reverse endothelial changes associated with CVD, enhance vascular production of nitric oxide (NO), promote angiogenesis (formation of new blood vessels) and most importantly lower blood pressure and improve lipid profile (Patel et al., 2021).

Improved Metabolism: Exercise improves insulin sensitivity and glucose uptake, which are importa nt for managing blood sugar levels and reducing the risk of diabetes, a major factor of CVD.

Reducing recurrence: In individuals diagnosed with CVD, physical exercise slows down the progression of various cardiovascular diseases and improve event-free survival (Gerber et al., 2025).

2. Studies have shown that engaging in regular physical exercise promotes academic performance among students. Exercise can improve attention, memory, and executive functions, such as planning and problem-solving (Liu et al., 2023). Exercise is thought to increase blood flow to the brain, stimulate neurogenesis (creation of new brain cells), and release neurotropic factors that promote neuronal health and function throughout development and in the adult brain (Anderson & White, 2021).
3. Beyond its physical advantages, regular physical exercise exerts significant positive effects on mental health and well-being. Numerous studies have demonstrated its efficacy in reducing symptoms of stress, anxiety, and depression. Engaging in physical activity releases endorphins, neurochemicals that have mood-boosting and pain-relieving effects (Garcia & Miller, 2021). Regular exercise also improves sleep quality, reduce feelings of fatigue, and enhance overall energy levels, further contributing to improved psychological well-being. Moreover, exercise related activities provide opportunities for social interaction, which can combat feelings of loneliness and isolation, particularly when engaging in team sports or group fitness activities (Chen et al., 2021). There is usually a sense of motivation to keep engaging or participating in physical exercises to achieve and maintain physical fitness. This sense of accomplishment and improved self-esteem that often accompanies achieving fitness goals can also have a positive impact on mental health.
4. Weight management is another crucial physical health benefit of regular exercise. Stress causes hormonal changes such as the release of neurotransmitter dopamine that can increase blood sugar levels and blood insulin levels, causing students to crave foods high in calories, fat, and sugar. This eventually leads to weight gain and obesity. Too much cortisol can also be released by the body in

response to stress, leading to weight gain, acne, trouble sleeping, headaches, and digestive problems. Engaging in physical exercise helps with stress management, which in turn helps in reducing stress-induced weight gain (Kumal et al., 2022). Physical exercise also helps to maintain a healthy body weight and prevent or reverse weight gain and obesity because it increases energy expenditure and rate of fat and glucose metabolism. This is why combining exercise with a balanced diet is often recommended for effective and sustainable weight management (Brown et al., 2021).

Although physical exercise does not produce equal benefits in everyone, probably due to genetic differences in the structure and function of the human body. It is important to note that regular physical exercise is necessary for good health.

5. University students with long sitting times are vulnerable to mental disorders with anxiety, depressive symptoms and stress symptoms being very common. Research shows that acute bouts of physical exercise such as aerobic exercise readily produce stress-buffering and mental health alleviation effects on students. Certain exercise interventions such as yoga were found to be effective in changing emotional processing of perceived stress and influencing cardiac activity thus, increasing psychological and physiological well-being immediately after the exercise (Herbert, 2022).

2.1.3 Concept of Regular Physical Exercise

According to WHO (2020), exercise is a class of planned, structured and repetitive bodily movements that require energy expenditure for the purpose of improving or maintaining physical fitness, physical performance or health. To engage in regular physical exercise as an adult is to engage in at least 150 to 300 minutes of moderate intensity exercise or at least 75 to 150 minutes of vigorous intensity exercise, or an equivalent combination of both categories of exercise throughout the week. The exercise should be spread evenly over 4 to 5 days a week, or every day of the week.

This can be achieved by planning and engaging in several short sessions of moderate or vigorous intensity exercise, or a combination of both kinds of exercise throughout the day until the weekly target is achieved. For additional health benefits, the students may engage in exercise for longer hours than the recommended time and incorporate anaerobic exercises like squatting and sit ups to strengthen all major muscle groups for at 2 least days a week (WHO, 2020).

2.1.4 Barriers to Engaging in Regular Physical Exercise

Currently there is a lack of direct studies on undergraduate Law students of the University of Benin however, parallel research done among undergraduate academic communities, local and abroad reveals recurrent themes. Exploring these themes illuminate points for fostering exercise engagement among students within UNIBEN's Faculty of Law.

As existing literature was reviewed, a range of barriers that impede university students' participation in regular physical exercise was identified. These barriers can be broadly categorized into individual-level factors, social and environmental constraints, and academic and time-related issues.

1. Individual-Level Barriers: A significant barrier reported by studies done in university students is the lack of motivation and willpower to engage in physical exercise. This compounded with feelings of fatigue and a lack of energy to exercise, often stems from the demanding academic workload and other commitments that characterize university life. This causes students to prioritize academics over health goals rather than complement physical exercise with school work to achieve academic goals. Furthermore, some students express a preference for other, more sedentary leisure activities or simply do not find enjoyment in exercise itself, probably due to its fatiguing nature. This makes exercising only under external pressure (controlled motivation) fail to sustain long-term engagement in physical exercise. Body image concerns and feelings of self-consciousness about exercising in front of others also represent individual-level barriers for some students. Lack of belief in their own

ability to be active, meet or manage their fitness goals can be demotivating. These internal psychological factors, such as motivation and perceived energy levels, appear to be salient challenges for university students, potentially intensified by the pressures of their academic environment (Odunaiya et al., 2021, Brown et al., 2024). The mental and emotional toll of rigorous university studies can directly impact students' inclination and capacity to prioritize and engage in physical activity. Some other students refuse to engage in physical exercise for fear of getting injured or having a previous bad experience about physical exercise. Poor health conditions including poor mental health and pain also present as individual-level barriers to students

2. Social and Environmental Barriers: The social and physical environment surrounding university students can also present significant obstacles to regular exercise. A lack of social support from friends and family members who are also physically active as well as feeling self-conscious or uncomfortable exercising in public due to their weight or appearance can hinder participation. Poorly maintained sports facilities, limited hours, limited availability and access to convenient exercise facilities, both on and off campus is another key barrier. Safety concerns, particularly among female students, can also deter them from exercising, especially during certain times or in particular locations. Additionally, a lack of awareness among students regarding the availability of exercise resources or programs offered by the university can prevent them from taking advantage of these opportunities. The university environment itself lacks the necessary infrastructure and culture that actively supports and encourages physical exercise, thereby inadvertently presenting barriers to student engagement (Odunaiya et al., 2021).
3. Academic and Time-Related Barriers: Consistently, time constraints due to the heavy academic workload, including assignments, lectures, and examinations, are cited as the most substantial barrier to regular physical exercise among university students. Students often report difficulty in effectively

managing their time to carve out dedicated slots for exercise within their already packed schedules. Furthermore, the stress and anxiety associated with academic performance also act as a deterrent to physical activity, either by consuming time that could be used for exercise or by negatively impacting students' motivation and energy levels. The demanding academic nature of university life limits scheduling flexibility often forcing students to make difficult choices about how to allocate their limited time and potentially leading to the prioritization of academic tasks over physical well-being (Brown et al., 2024, Odunaiya et al., 2021).

4. Socio-Cultural Barriers: Some female students face cultural restrictions that limit physical exercise levels. This could be in the form of familial and disapproval of working out as related to body image or engaging in mixed-gender sport settings (Chaabna et al., 2022).

2.1.5 Facilitators to Engaging in Regular Physical Exercise

Alongside the barriers, recent research has also identified several factors that facilitate undergraduate students' engagement in regular physical exercise. These facilitators span individual characteristics, social and environmental influences, and university-based initiatives.

1. Individual-Level Facilitators: Self-discipline and a strong sense of intrinsic motivation to be active are key facilitators to engaging in regular physical exercise. Prior positive experiences with exercise and finding enjoyment in workouts can also significantly increase the likelihood of regular participation. Furthermore, a clear awareness and appreciation of the numerous health benefits associated with physical exercise such as weight control and improved appearance can motivate students to work out regularly. The appearance and health motivation were found to be the main motivation of female students to exercise regularly. Setting personal fitness goals and having a sense of competence in performing physical activities can also encourage sustained engagement. These internal factors, such as a positive attitude towards exercise, self-motivation,

and a belief in one's ability to be physically fit are fundamental in enabling students to overcome barriers and prioritize exercise (Liu et al., 2023).

2. Social and Environmental Facilitators: The social and physical environment surrounding university students can significantly influence their levels of physical activity. Strong social support networks, including friends, family, and peers who also engage in exercise, provide encouragement and companionship, thereby facilitating participation. The availability and easy access to well-maintained on-campus and community exercise facilities, such as gyms, sports fields, and swimming pools, makes it convenient for students to be active. Facilities and fitness programmes that accommodate extended closing hours can encourage students to overcome time constraints as a barrier to engage in physical exercise. Opportunities for social interaction and participation in group exercise activities, such as fitness classes or sports teams, can also enhance motivation and enjoyment especially for males whose main motivation is to improve their social interaction. A general environment that is perceived as safe and supportive for physical activity encourages students to feel comfortable and confident in being active. The presence of these supportive social connections and accessible facilities are key enablers that can significantly impact students' ability and willingness to exercise regularly (Brown et al., 2024).
3. University-Based Facilitators: Universities themselves play a vital role in fostering a culture of physical activity among their students. University-sponsored or faculty sponsored programs and initiatives, such as intramural sports, fitness classes, and recreational clubs, provide structured opportunities for routine regular physical exercise. Integrating sport activities into the academic curriculum, either as mandatory physical education courses or as extracurricular activities that earn academic credit, can also increase student participation. Applying health motivation as an extrinsic factor with these programs that emphasize personal improvement and skill development

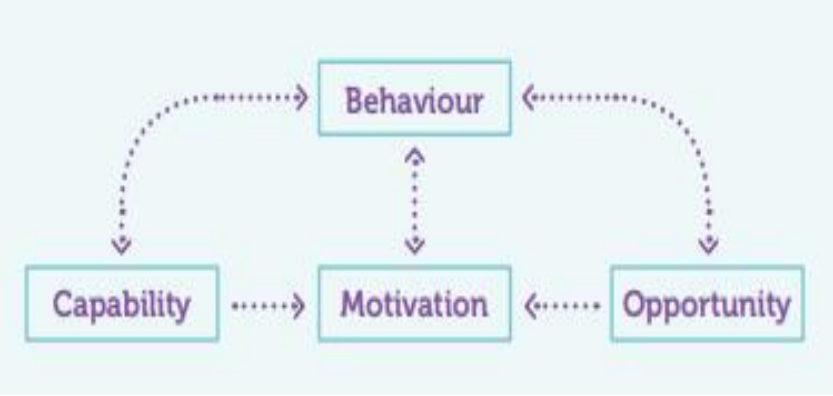
while guided by the educational concept of "Health First", rather than solely focusing on competition, can further encourage engagement. Providing students with readily available information and guidance on how to effectively overcome common barriers to exercise, such as time management strategies or tips for finding enjoyable activities, can also be beneficial. Students can also be educated on how to set realistic goals such as participating in step count competitions and incremental fitness targets to engage students' achievement orientation. By actively creating an environment that provides resources, programs and support for physical activity, universities can significantly contribute to improving the health and well-being of their student population (Li et al., 2022).

2.2 Theoretical Framework

The most suitable theory to support this study is the COM-B model of behaviour.

Figure 1

The COM-B Model of Behaviour Change



The COM-B model is a theoretical framework that explains how behaviour is influenced by Capability, Opportunity, and Motivation (Michie et al., 2011). The model proposes that there are three components to any behaviour: capability, opportunity, and motivation. In order to perform any behaviour (B), one must feel able (psychological ability) and be actually able (physical ability) to do

so (C), have the opportunity to perform the behaviour (O), and prioritize the need to perform that behaviour above all others (M) (Michie et al., 2011).

Capability: This refers to the individual's ability to perform the behaviour. It includes both physical skills (e.g., being able to skate, health status) and psychological skills (e.g., knowing how to plan a route and best time to skate, knowledge of the benefits of exercise).

Opportunity: This encompasses the external factors that make the behaviour possible or facilitate it. It includes physical factors (e.g., availability of roller skates either by renting or buying them, access to sport facilities) and social factors (e.g., having a group of friends to skate with or being involved in a competition).

Motivation: This is the internal drive or desire to perform the behaviour. It can be influenced by a variety of factors, including personal values, beliefs, and social norms. It could be in the form of reinforcing previously established habits, setting goals. By understanding the interplay of capability, opportunity, and motivation, interventions can be tailored to address the specific barriers and facilitators to behaviour change such as engaging in regular physical exercise.

In this study, the independent variables are categorized into three factors: personal/ individual factors (including age, gender, marital status, religion, and class), perceived barriers (such as time constraints, feeling tired, lack or loss of motivation, poor health status or injury, lack of awareness about the benefits of regular physical exercise, feeling self-conscious when exercising in public), and perceived facilitators (such as free time, feeling energetic, social support, health motivation, programs that promote physical exercise). Any of these factors can influence the dependent variables which are the level of engagement as well as the level of participation of students in workout

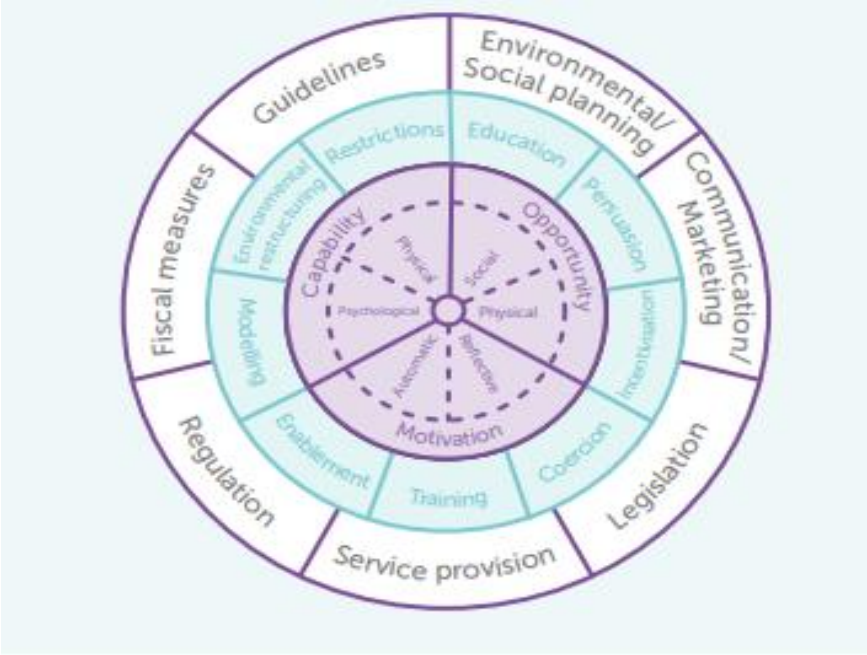
activities. This could generally be as barriers or facilitators to engaging in physical exercise, regularly.

Application of the COM-B Model of Behaviour to the Study

The COM-B model of behaviour change is applied using the Behaviour Change Wheel (BCW) (Michie et al., 2011). Barriers identified through the COM-B analysis can be addressed using interventions designed from the Behaviour Change Wheel (BCW). The BCW provides a framework for identifying intervention functions (e.g., education, persuasion, and incentivization) and policy categories (e.g. guidelines, environmental changes, communication) that can address the identified barriers.

Figure 2

The Behaviour Change Wheel



Examples of interventions:

1. **Education:** Nurses and other health related professionals can organize workshops on the benefits of physical exercise, how to manage potential side effects, what exercise to engage in, how to overcome common barriers (e.g., time management, stress reduction), and how to include regular exercise into students' schedules as interventions that to address non-engagement in regular physical exercise.
2. **Incentivization:**

   Free or subsidized access to sports facilities, organizing group fitness classes, free exercise demonstrations, or creating a rewards system for participation can be integrated into health promotion strategies to encourage students' engagement in regular exercise. The recognition of students who engage in regular physical exercise can also motivate and encourage other students and eradicates the social isolation experienced by students who choose to engage in physical exercise when majority of the students do not.
3. **Environmental changes:**

   The availability, affordability and accessibility of sports facilities and exercise space on campus as well as healthy food promotion in the food court can encourage students to take charge of their health and stay physically fit.
4. **Social Support:**

   Initiate the formation of exercise groups and other initiatives that are centred on exercise as an integral part of a balanced and healthy student life. Organising regular intramural sport competitions and establishing exercise day(s) can also create academic-friendly environment where students can have fun while exercising. Establishing a culture that encourages balance

in student-life rather than prioritizing academic pursuits and viewing other activities as distractions can help address the social barriers of engaging in physical exercise.

5. **Habit formation:**

   Students can be educated on how to incorporate exercise into their daily routines, such as walking to class instead of taking the bus or incorporating short exercise breaks during study sessions. These new exercise behaviours can then be reinforced with continuous health promotion strategies such as cues to action, seminars, and exercise demonstrations, until healthy lifestyle behaviours are formed and common among undergraduate Law students.

By systematically applying the COM-B model and the BCW, nurses and other health workers can develop effective interventions to promote regular exercise among undergraduate Law students as well as other students to the University of Benin, ultimately contributing to student wellbeing and academic success.

2.3 Empirical Review

Alves et al. (2021) carried out a study on a stratified sample of 840 university students in Portugal to determine the relationship between students' knowledge of physical exercise, their perceived barriers, and their practice of physical exercise. The research showed that 35.7% of the participants did not engage in physical exercise and they possessed low levels of knowledge about physical exercise (SD = 0.090). The results of the study also showed that the students perceive lack of time as the most significant barrier to engage in physical exercise, and that female students were less likely to exercise compared to the males ($p = 0.000$, $\beta = 0.578$).

Ezeaku (2022) assessed the knowledge, attitudes, and perception of 100 Nigerian students studying in the University of Jos, Nigeria, and Ukraine on morning exercise. The study showed that 85% of the students were aware of the benefits of physical exercise, 78% agreed that physical exercise is

essential for good health, and 82% believed that exercise boosts mental and academic performance. However, 30% of the participants did not possess adequate knowledge on regular physical exercise, and only 40% of the students engaged in regular physical exercise. The students abroad were seen to engage more in regular physical exercise (60%) than those in Nigeria (20%), and the male students were motivated to exercise more (55%) than the females (25%). The most significant barriers to engaging in regular physical exercise were identified to be lack of time due to academic workload (65%), lack of social support (50%) and unfavorable weather conditions (30%).

A descriptive cross sectional study was conducted on 345 undergraduate students from the faculties of Law, Medicine, and Nursing, University of Enugu, Enugu campus to assess their knowledge, attitude and practice of physical exercise. The study revealed that 86% of the participants believed that regular physical exercise is essential for optimal health but only 3.8% engaged in regular physical exercise. The nursing students were reported to engage in physical exercise the most (14.9%) and medical students exercised the least (3.6%). The research shows that most of the students possessed adequate knowledge of physical exercise but did not engage in regular physical exercise (Okeke et al., 2020).

A study carried out by Ceylan et al. (2021) to examine the motivation of 328 university students to participate in physical activities during the period of the pandemic in Turkey revealed that there was no significant difference in students' motivation to work out according to gender, age, place of residence, or time allocated to them for sports. However, a significant difference was seen in the motivation to exercise as a result of income level ($p < 0.05$). It was determined statistically that students with higher incomes had higher motivation to engage in workout sessions.

In another study conducted among 608 students of the University of Santiago de Compostela, Spain, 37.2% indicated that they engaged in regular physical exercise, with the need to maintain physical

fitness and general well-being as their significant facilitators. These facilitators were associated with the participation of relatives and family members in physical exercise as well as experiencing a sense of satisfaction as a result of enjoying the benefits of physical exercise as taught in physical education class. Lack of time and laziness associated with smoking, time spent studying, feeling despondent, and screen time were identified as the barriers to engaging in physical exercise. Carballo-Fazanes et al. (2020) showed that gender as a variable in this study was only related to the number of minutes physical exercise was practiced, with 25.8% of the males exercising for longer hours. Other facilitators of physical exercises were found to be having fun, making friends, enjoying feeling physically fit and competent, and competition. Barriers could be categorized into reasons for giving up on engaging in physical exercise and reasons for not engaging in physical exercise. While the major reasons for not working out were identified to be lack of time (75.1%), laziness (70.8%), lack of sports facilities or gyms (49.2%), lack of exercise partners (social support) (49.1%), about one-third of the population indicated that working out was not enjoyable for them and they did not feel competent. Time constraints, loss of social support, physical injury, lack of trainers and parental prohibition were identified to be the abandonment motives.

Boonsem et al. (2021) conducted a study to show the relationship between factors affecting exercise behaviours and physical fitness on 370 engineering students at the King Mongkut University of Technology Thonburi, Thailand using causal research design. The result of the study showed that having knowledge of the benefits of physical exercise did not in any way influence the attitude and exercise behaviours of university students. Age and gender were noted to influence exercise behaviours in students, with males demonstrating higher levels of exercise practices than females, in relation to exercise frequency and physical differences ($p < 0.5$). Campaigns and health education were ($p < 0.5$) seen to be an effective facilitator to engage in regular physical exercise in older

students. Social and environmental facilitators as well as the health motivation were also noted to directly influence and increase exercise behaviours of longer exercise duration and physical fitness with a statistical significance of 0.5.

Alecu et al. (2025) carried out a study that focused on motivation for physical exercise and categorised motivation into 4 groups based on external factors such as social approval, internal pressure such as obligation, personal values, and self-satisfaction. The study was carried out on 813 students in their first and second year at Transylvania University. The participants were in the different faculties of the school other than that of Physical Education and Mountain Sports but they all had physical education in their academic curriculum. The results of the study revealed that external factors ($t = 2.065$, $p = 0.039$), individual values placed on physical exercise ($t = 3.280$, $p<0.001$), self-satisfaction gained from working out ($t = 3.967$, $p < 0.001$) motivate women more to work out. This study also revealed that men engaged more in physical exercise, more independently than females and they are motivated more by social approval and recogntion ($t = 2.056$, $p = 0.040$). Age, gender and socio-demographics were not seen to provide any form of motivation.

Another study carried out on 217 students at the University of Ibadan revealed that the facilitators of physical exercise were health motivation (95.4%), social interaction (75.3%), availability of exercise facilities, activities or programs (71.0%), absence of time constraints (62.2%), conducive environment for physical exercise (60.4%), and creating time for physical exercise (56.3%). Health motivation was seen to be the most significant facilitator of physical exercise among males (95.2%) while easy access and availability of low-cost work out facilities or programs motivated the females more to engage in physical exercise. Half of the participants reported the fatigue inducing effect and stressful nature of physical exercises as barriers to engaging in physical exercise. Other barriers were

identified to be tight schedules (46.6%) and inadequate locations for exercise (41.0%) (Odunaiya et al., 2021).

Menakaya and Menakaya (2022) carried out a qualitative study to explore the perceptions, attitudes and practice of healthy lifestyle habits of undergraduate students in Lagos. The study involved 18 students across 3 universities in Lagos. The participants perceived that regular physical exercise is essential for a healthy lifestyle. The participants portrayed positive attitude and possessed adequate knowledge of regular physical exercise however they indicated time constraints due to academic workload as the barrier to engaging in regular physical exercise.

A pilot study conducted on seven students at the University of Bristol by Skinner et al. (2024) revealed that self-discipline, social support, good history of physical exercise, availability of enjoyable activities and increased awareness of the physical and mental health benefits of regular exercise helped students engage in physical exercise and maintain exercise adherence. The barriers reported in this study include lack of motivation or willpower, prioritizing academic activities, bad history with physical exercise, time constraints and unavailable accessible exercise facility as well as affordable exercise options. Lack of knowledge and exposure to gym settings were also seen as barriers to engaging in exercise. This study was specifically carried out to identify and understand the unique factors of exercise adherence in university students with mental health challenges. The research made use of focus group discussions and individual interviews to collect data from the students and organized the perceived exercise facilitators and barriers obtained from the data using the COM-B model.

A quantitative cross-sectional study was conducted on 239 students of the public University of Peru using an adequate instrument called the Barrier to Being Active Quiz (BBAQ) to assess the students' perceived barriers to physical activity. The research showed that the mean of the barriers to physical

activity was 29.12 (SD = 11.517), which was categorized at a moderate level. The main barriers perceived by the students to hinder physical exercise engagement were feeling too tired (M = 4.80, SD = 2.280), lack of exercise facilities and spaces (M = 4.54, SD = 1.985), and time constraints (M = 4.50, SD = 1.951). It was also observed that the female and unemployed participants perceived more barriers to regular physical exercise than the male participants and those who were employed (Estrada-Araoz et al., 2025).

Ghimire and Lamichhanwe (2024) conducted a descriptive cross-sectional study to assess the knowledge and attitude of education students to physical exercise. The research involved 142 students from the four classes in the Faculty of Education, Baneshwor Multiple Campus (BMC), Kathmandu, Nepal. The result of the study revealed that over 90% of the participants were aware of the benefits of physical exercise and more than 80% agreed that physical exercise is essential for optimum health. However, 61.3% of the students thought and believed that exercise was injurious, 28.2% were neutral, and only 10.6% disagreed that physical exercise is injurious. This reflects the impact of a significant lack of adequate knowledge and understanding of physical exercise among the undergraduate students.

A study aimed at assessing the knowledge, attitude and practice of physical exercise among Physiotherapy students in Gujarat, India also revealed a knowledge-practice gap in physical exercise among university students. The study involved 303 undergraduate and postgraduate students from 72 universities across Gujarat, who participated by filling the online questionnaire through Google forms. The data collected revealed that majority of the participants possessed knowledge of the different benefits of physical exercise however, only 54.9% of the respondents engaged in regular exercise with the majority doing moderate intensity exercise (77.8%). Majority of the students that exercised regularly were motivated by their desire to be physically fit (79.4%) and healthy (73.3%),

while 57.2% and 38.6% exercised for the benefits of weight management and improved appearance respectively. The students perceived their barriers to engaging in exercise to be time constraints (33.3%), feeling uninterested in the exercise activities (30.4), academic workload (30.4%), lack of exercise partners (11.6%) and fatigue (6.9%) (Alagappan et al., 2022).

Alhammad et al. (2023) conducted an online survey to assess the practice and barriers to physical exercise among undergraduate students at King Saud University, Riyadh using a cross-sectional research design. The study involved 377 respondents from the College of Applied Medical Science (CAMS) who met the inclusion criteria. Results of the study revealed that 54.6% of the respondents engaged in physical exercise and the most preferred exercise activities were walking (42.7%), gym exercise (37.8%) and football (11.6%), but only 16.2% of the students engaged in regular physical exercise. The students' perceived barriers to physical exercise were reported to be lack of exercise facilities (9.3%), time constraints (51.4%), and lack of interest in physical exercise (29.2%). On the other hand, students were motivated to exercise by their desire to control their weight (33%), improve their mood (26.6%), and improve their physical fitness (24.2%).

2.4 Summary of the Literature Review

The literature review provides a comprehensive knowledge of the concept and benefits of physical exercise, the need for undergraduate Law students to engage in regular physical exercise, and factors that affect the students' exercise behaviours. The literature review also explores the relationship between knowledge, attitude, practice, barriers and facilitators related to regular physical exercise among university students across various academic disciplines and settings.

1. Knowledge, Attitude and Practice of Regular Physical Exercise

   The literature review highlighted a significant knowledge-practice gap among university students in regular physical exercise. Research findings were consistent in revealing that

majority of undergraduate students are aware of the importance and benefits of physical exercise yet low participation levels of the students in regular physical exercise remains.

2. Motivation or Facilitators to Engaging in Regular Physical Exercise

   Recent studies consistently reported students' desire to attain and maintain physical fitness, control their weight and promote their general wellbeing. Other facilitators were reported to be having an exercise partner or social support, health motivation, and availability of easily accessible and available exercise facilities and programs.

3. Barriers to Engaging in Regular Physical Exercise

   Available literature relevant to this study consistently reports time constraints usually due to academic workload, to be the most significant barrier students across the world face to exercise regularly. The other barriers recurrently reported were fatigue, disinterest in exercise activities, and lack of exercise partners or social support.

Based on the empirical review, some gaps in the literature were identified.

1. Inconsistency in Influence of Gender on Physical Exercise.

   Some of the recent studies examined the role of gender in influencing exercise adherence and the research findings have been inconsistent. Alves et al. (2022) and Estrada-Araoz et al. (2025) indicated that gender was a potential barrier to physical exercise as the study findings reported that females were less likely to exercise compared to the males. However, Ceylan et al. (2021) reported that there was no significant difference in students' motivation to exercise according to gender. Research findings of Carballo-Fazanes et al. (2020), Alecu et al. (2025), Ezeaku (2022) and Boonsem et al (2021) align with that of Ceylan et al. (2021) but they also reported that males have increased exercise duration and frequency.

While studies examined the influence of gender as a barrier or facilitator to exercise, some studies highlighted the interplay between gender and motivation in the practice or physical exercise. Alecu et al. (2025) reported that female students are motivate more by the satisfaction they get from working out, the values they place on it, and external factors to exercise than the males. The male students were motivated more by social approval and recognition than female students. Moreover, Odunaiya et al. (2021) found that females were more motivated to exercise when there is access to low-cost exercise facilities and programs.

Conducting a qualitative or mixed-methods study that explores the reason for the observed differences in the influence of gender on exercise participation and motivation is essential in developing in interventions suitable for the male and female students.

2. Knowledge-Practice Gap

Several studies highlight a knowledge-practice gap where students possess adequate knowledge of physical exercise and its benefit but do not engage in physical exercise regularly. Majority of the studies that assessed students' knowledge of regular physical exercise revealed a high awareness rate but a relatively low exercise rate like Okeke et al. (2020) found that more than 86% of the participants possessed knowledge on physical exercise but only 3.8% engaged in regular physical exercise. The findings of Menakaya and Menakaya (2022), & Alagappan et al. (2022) also revealed this gap. Ghimire and Lamichhanwe (2024) found that that lack of adequate knowledge and understanding of physical exercise despite being aware of the health benefits fuel this research gap. Moreover, Boonsem et al. (2021) found that having knowledge of the benefits of physical exercise did not in any way influence the attitude and exercise behaviours of university students compared to the various forms of motivation employed in the study.

3. Repeated Use of Cross-sectional Research Design

   Majority of the literature cited employed a descriptive cross sectional design, which captures a snapshot in time and identifies correlation between variables like those of Alhammad et al. (2023). There is a need for more longitudinal studies to monitor the cause-and-effect relationships of the factors, and the interventions for regular physical exercise. This will help to confirm the direct influence of barriers and facilitators already identified by existing literature, and evaluate the efficacy and sustainability of interventions to increase students' exercise adherence.

4. Limited exploration of Income Factors

   Studies that identified the influence of students' income value on their engagement in physical exercise were cited but they were limited. Even though Odunaiya et al. (2021) reported that the availability of low cost exercise facilities and programs provided motivation, Carballo-Fazanes et al. (2020) reported the students' lack of footwear appropriate for physical exercise as a barrier, and Skinner et al. (2024) reported that the lack of affordable exercise options as a barrier to students. Only Ceylan et al. (2021) directly reported that students with higher incomes engaged more in physical exercise. This necessitates the need to explore deeply the influence of the students' income levels on the students' engagement in physical exercise.

5. Lack of exploration of Students' Disinterest in Regular Physical Exercise

   Some of the literature cited identified lack of interest on physical exercise as one of the barriers of regular physical exercise. The studies of Alhammad et al. (2023), Alagappan et al. (2022) and Carballo-Fazanes et al. (2020) assessed this factor of exercise quantitatively. There is a need for qualitative studies to be carried out to explore this interest and its impact on students' motivation to exercise.

CHAPTER THREE

METHODOLOGY

This chapter describes the methods and procedures used in the study. It is discussed under the following headings, research design, research setting, population target, sample size and sampling techniques, instrument for data collection, validity/reliability of the instrument, method of data collection, method of data analysis and ethical consideration.

3.1 Research Design

A descriptive cross-sectional research design was adopted for this study. A cross-sectional study design is used to observe and collect data within a specific population at specific point in time. The data obtained was analysed to describe the characteristics of the variables to be studied. This cross-sectional research design was employed in the study because it enabled the researcher to observe and obtain data about different characteristics to be studied at once (Simkus, 2023). The descriptive cross-sectional study design was the preferred from of cross-sectional design used in this research because it describes and assesses the prevalence of the characteristics of a population that the researcher intends to study in a quick, easy and easy to conduct way.

3.2 Research Setting

The study was conducted at the Faculty of Law, University of Benin, Benin City, Edo state. The University of Benin (UNIBEN) is a public institution that is owned by the federal government of Nigeria. UNIBEN was founded in 1970 while the Faculty of Law was established in 1981. At undergraduate level, the Faculty of Law offers a program to obtain the Bachelor of Laws (LL.B.) degree. The duration of the full time LL.B. program spans five academic sessions for students admitted through the Unified Tertiary Matriculation Examination (UTME) and four years for those

admitted through direct entry. The Faculty of Law is organized into four departments, each headed by a head of department (HOD) under the leadership of the Dean. These departments are the Department of Jurisprudence & International Law, the Department of Business Law, the Department of Private and Property Law, and the Department of Public Law. There were about 981 admitted undergraduate students of the Department of Law (Faculty of Law [FOL], UNIBEN, 2025).

3.3 Target Population of the Study

A target population is a specific subset within a larger population whose members possess similar characteristics and is the primary focus of a study or intervention. The members of a target population meet certain criteria that are established based on the research objectives (Willie, 2023). The population studied comprised of 784 students of the Faculty of Law, University of Benin from the 200 level to 500 level classes in the 2024/2025 academic session. The inclusion criteria included admitted students above the age 18 at the time of carrying out this study and students in second year of study and above.

3.4 Sample Size Determination

Sample size is calculated using the Taro Yamane statistical formula. The formula is:

$$n = \frac{N}{1 + N\,(e)^2}.$$

Where:

(n) is the required sample size

(N) is the population size = 784

(e) is the margin of error (constant) = 0.05

$n = 784/\ [1+784(0.05)^2]$

= 784/ [1+784(0.0025)]

= 784/ [1 +1.96]

= 784/2.96

n = 265.

The sample size consisted of 265 undergraduate Law students across the four levels.

3.5 Sampling technique

Convenience sampling technique was employed for this study. Convenience sampling technique is a non-probability sampling technique where the sample population consists of members of the target population that is most readily available and easy to meet. This sampling technique, also called opportunity or availability sampling allowed the researcher to select the study participants based on their ease of access (Alex, 2024). It enabled the researcher collect data quickly from available participants.

3.6 Instrument of Data Collection

The research instrument used for this study was a pre-tested self-administered well-structured questionnaire. The questionnaire used to collect data from the respondents was designed in line with the recent literature review. The instrument consisted of five sections:

SECTION A: Demographic Information- This section contained seven items that explored the demographic characteristics of the students.

SECTION B: Regular Physical Exercise Habits and Preferences- This section contained four items that seek to explore the practice of the students' regular physical exercise.

SECTION C**:** Barriers to engaging in regular physical exercise- This section contained nine items regarding the barriers the students face to engage in physical exercise regularly.

SECTION D**:** Facilitators to Engaging in Regular Physical Exercise – This section contained 12 items to identify the factors that encourage the undergraduate Law students to engage in workout sessions regularly.

The modified Likert four-point scale was used to score items on the barrier and the facilitator scale. The points ranged from "not a barrier/facilitator" to "extremely a barrier/facilitator" with "1"- "not a barrier", "2" - "slightly a barrier", "3" - "moderately a barrier", and "4"- "extremely a barrier".

3.7 Psychometric Properties of the Instrument

3.7.1 Validity of Instrument

The research instrument was made to undergo a face and content validity assessment conducted by my supervisor, to ensure a thorough and meticulous examination. Necessary corrections and adjustments were made to the instrument as a result of this scrutiny.

3.7.2 Reliability of Instrument

The researcher employed the Internal Consistency method, utilizing the Cronbach Alpha test to assess the reliability of the pre-study responses gathered through the research instrument used in the study. This indicates how closely related the items in the research instruments are in measuring a single construct. An alpha value between 0.70 and 0.90 is generally considered the standard for a reliable scale for a research. The reliability of the Barrier scale was confirmed with a Cronbach's alpha of 0.74 while the alpha value of the Facilitator scale was confirmed to be 0.70, both indicating acceptable internal consistency.

A pilot study was carried out with a sample size comprising of 20 students from the Faculty of Nursing Science, UNIBEN. The objective was to assist the researcher in identifying any items within the research instrument that could potentially lead to ambiguity in extracting the pertinent information. The results of the pilot study were not included in this study.

3.8 Method of Data Collection

The questionnaire was administered using a self-administered and an online approach. Printed copies of the questionnaire were administered directly to voluntary participants after obtaining their informed consent. The questionnaires were filled with pens provided by the researcher in their lecture theatres, library, halls and relaxation centres during class breaks. The online questionnaire was designed using Google Forms and the link to the questionnaire was shared to the official class group chats of the participants, who filled the questionnaire without coercion. Data collection was conducted in one week from the 24th of September to 2nd October, 2025. The respondents took about five minutes to complete the questionnaire. A total of 208 written questionnaires were distributed to the undergraduate Law students across 200-500 level, and 57 online questionnaires were received. A total of 265 questionnaires were received and they were all completely and properly filled for data analysis. This yielded an overall response rate of 100%

3.9 Method of Data Analysis

The data obtained was analysed with the aid of Microsoft Excel 2010 and Gemini AI (2.5 Flash version). Findings from sections A to D were presented and summarized using frequency distribution and simple percentage in tables and charts. The mean cutoff value for the 4-point scales in sections C and D was calculated to be 2.5. The mean scores of items in the scales were compared to the mean cutoff and the items were interpreted accordingly. The research hypothesis was tested

using the independent samples *t*-test. This statistical testing method is a parametric test that compares the means of two unrelated groups to determine if there is a statistically significant difference between the mean of their population. The result of this grouping is dichotomous, unrelated and independent as an individual cannot be in both groups of "Yes" (exercisers) and "No" (non-exercisers). It is employed when the independent variable is categorized into 2 groups only and the dependent variable is continuous to decide if the observed difference between two distinct groups of data is significant and real or it occurred by chance (Kent State University Library, 2025). The independent or grouping variable is the number of students categorized by engaging in regular physical exercise. The dependent or test variable is the outcome measure that is being compared between the two groups, that is the mean score of the facilitator statement "Having a good understanding of the health benefits of exercise" as measured on a 4-point Likert scale. The data was split into two independent groups based on the "Exercise group" variable and the mean "Knowledge score" was calculated for each group. The test was done assuming the significance level (α) of 0.05.

3.10 Ethical Consideration

The following ethical considerations were observed in the research study.

Permission: A formal letter seeking permission to carry out this research was submitted to the Research Ethics Committee at the School of Basic Medical Science, College of Medical Science, UNIBEN, prior to the commencement of data collection. The ethical approval was secured and the study was issued an approval number: CMS/REC/2024/772. A copy of the ethical approval is attached to the research as appendix I. Official letters of permission to conduct the study were obtained from the former Head of Department of Nursing Science and the Dean of Faculty of Law.

Informed Consent: Prior to administering the questionnaire, informed consent was diligently acquired from all the participants after outlining the purpose of the study and the voluntary nature of the participation.

Respect and Confidentiality: All the participants were treated with utmost respect and dignity, regardless of their age, class level, or tribal affiliation. Furthermore, all information gathered through the questionnaires was handled with strict confidentiality. Anonymity was maintained by not collecting personally identifiable information from the participants through the questionnaire.

Principles of Voluntary Participation: The respondents were not subjected to any form of pressure or coercion to complete the questionnaires. The students' participations were entirely voluntary.

These measures were taken to ensure that the rights of the participants are protected and the ethical standards adhered to.

CHAPTER FOUR

RESULTS OF THE STUDY

This chapter discusses the results of the study. The results are presented across different sections as the questionnaire was structured and the research hypothesis test.

Section A: Demographic Information

Table 1

Demographic Data of the Participants

Variable	Category	Frequency	Percentage (%)
Sex	Male	115	43.4
	Female	150	56.6
Age (years)	18-20	136	51.3
	21-30	125	47.2
	31-40	1	0.4
	41-50	1	0.4
	51 years and above	1	0.4
Class level	Year 2	69	26
	Year 3	63	23.8
	Year 4	52	19.6
	Year 5	81	30.6
Marital status	Single	261	98.5
	Married	4	1.5
Participation in regular exercise for at least an hour every week	Yes	128	48.3
	No	137	51.7

The vast majority of the respondents fell in to the 18-20 years (51.3%) and 21-30 years (47.2%) age brackets. The marital statuses of the participants were overwhelmingly single (98.5%). Only a slight majority of the participants do not meet study's definition of being regular exercisers (51.7%) while 48.3% report engaging in exercise for at least an hour a week.

Section B: Physical Exercise Habits and Preferences

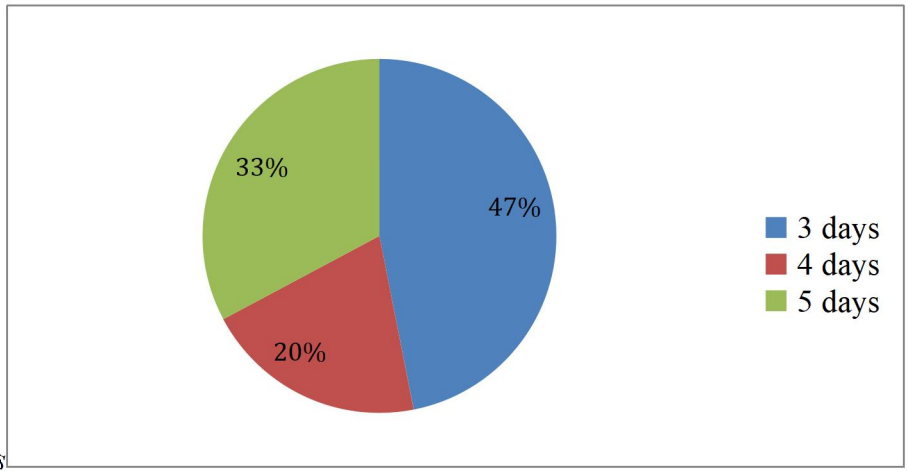
Table 2

Participants' Preferred Exercise

Exercise	Frequency	Percentage
Walking	109	85.2
Running	42	32.8
Team sports	29	22.7
Gym workouts	25	19.5
Dancing	30	23.4
Yoga	16	12.5
Cycling	4	3.1
Skating	2	1.6

Figure 3

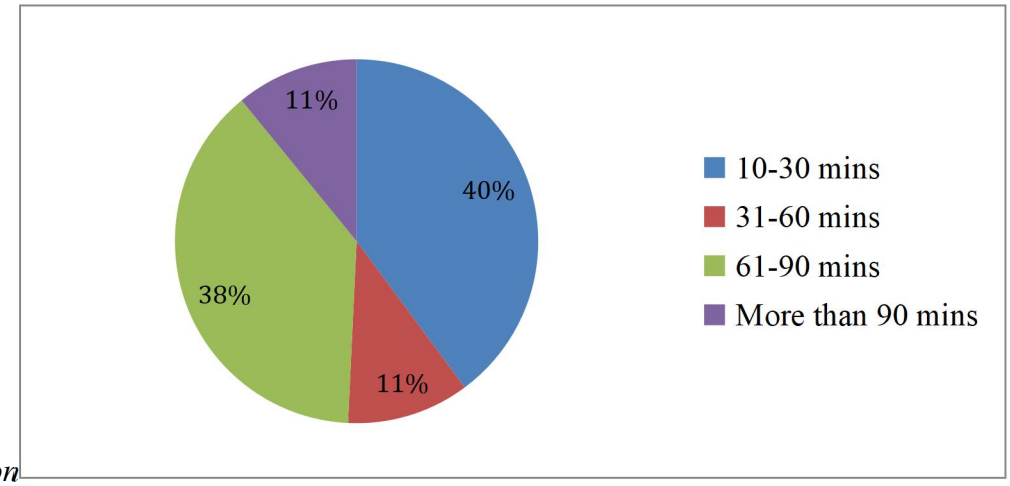
Days of Exercise of



Participants

Figure 4

Participants' Duration of Exercise



Session

Table 3

Participants' Preferred Location of Exercise

Students' exercise location	Frequency	Percentage
At home	54	42.2
Outdoors	98	76.6
Off-campus gym	13	10.2
University gym	6	4.7
UNIBEN sport complex	6	4.7

Walking (85.2%) is seen to be the most frequent exercise engaged in, followed by running (32.8%) and dancing (23.4%). This suggests a preference for easily accessible and low-cost physical activities. The most common frequency is 3 days (46.9%) of exercise per week, followed by 5 days (32.8%). The time spent per workout session was almost equally distributed between 10-30 minutes (39.8%) and 61-90 minutes (38.3%), with fewer participants in the 31-60 minutes (10.9%) and more than 90 minutes' categories (10.9%)

Section C: Barriers to Engaging in Physical Exercise

Table 4

Barriers to Engaging in Physical Exercise

Statement	Not a barrier (%)	Slightly a barrier (%)	Moderately a barrier (%)	Extremely a barrier (%)	Mean	*Remarks
Lack of time due to academic workload	50 (18.9)	73(27.5)	78(29.4)	64(24.2)	2.59	Major
Feeling too tired or lacking energy	44(16.6)	68(25.7)	83(31.3)	70(26.4)	2.68	Major
Lack of motivation or willpower.	49(18.5)	67(25.3)	83(31.3)	66(25)	2.63	Major
Lack of suitable facilities or equipment on campus	81(30.6)	63(23.8)	61(23)	58(21.9)	2.37	Minor
Cost of gym memberships or sports activities.	55(20.8)	43(16.2)	54(20.4)	109(41.1)	2.83	Major
Feeling self-conscious or uncomfortable exercising in public.	103(38.9)	75(28.2)	44(16.6)	37(14)	2.06	Minor
Lack of social support or exercise partners.	98(37)	77(29.1)	66(24.9)	21(7.9)	2.04	Minor
Lack of awareness about the benefits of physical exercise.	163(61.5)	60(22.6)	28(10.6)	14(5.3)	1.6	Minor
Difficulty fitting exercise into my daily routine.	42(15.8)	64(24.2)	65(24.5)	94(35.5)	2.8	Major

Note. ***Mean Cutoff = 2.5**

The statements with the highest mean scores indicating that they are more strongly perceived as barriers to regular exercise are cost of gym memberships or sport activities ($\bar{X}$=2.83), difficulty

fitting exercise into my daily routine ($\overline{X}$=2.80), feeling too tire or lacking energy ($\overline{X}$=2.68) and lack of time due to academic workload ($\overline{X}$=2.59). The statement with the lowest mean score is lack of awareness about the benefits of physical exercise ($\overline{X}$=1.60) with 61.5% of respondents classifying it as "Not a barrier". This suggests that a lack of knowledge is generally not a primary barrier for most students.

Section D: Facilitators to Engaging in Regular Physical Exercise

Table 5

Facilitators to Engaging in Regular Physical Exercise

Statement	Not a facilitator (%)	Slightly a facilitator (%)	Moderately a facilitator (%)	Extremely a facilitator (%)	Mean	*Remark
Having free time	49(18.5)	44 (16.6)	83 (31.3)	88 (33.2)	2.8	Major
Feeling energetic and motivated.	27 (10.2)	50 (18.9)	65 (24.5)	122 (46)	3.07	Major
Having a strong personal desire to be physically active and healthy.	29(10.9)	40 (15.1)	75 (28.3)	121 (45.7)	3.09	Major
Good physical health and absence of injuries.	25 (9.4)	46 (17.4)	88 (33.2)	100 (37.7)	3.02	Major
Availability of accessible and convenient exercise facilities/spaces on campus.	52 (19.6)	66 (24.9)	68 (25.7)	78 (29.4)	2.65	Major
Affordability of exercise options	54 (20.4)	51 (19.2)	58 (21.9)	100 (37.7)	2.78	Major

Statement	Not a facilitator (%)	Slightly a facilitator (%)	Moderately a facilitator (%)	Extremely a facilitator (%)	Mean	*Remark
Feeling comfortable and confident exercising in my environment.	42(15.9)	49 (18.5)	97 (36.6)	73 (27.5)	2.77	Major
Having friends or classmates as exercise partners.	64 (24.2)	54 (20.4)	72 (27.2)	71 (26.8)	2.57	Major
Pleasant weather conditions	54(20.4)	63 (23.8)	79 (29.8)	66 (25)	2.6	Major
Having a good understanding of the health benefits of exercise.	43(16.2)	48 (18.1)	85 (32.1)	87 (32.8)	2.8	Major
Support and encouragement from family, friends, and/or university staff.	86 (32.5)	55 (20.8)	67 (25.3)	56 (21.1)	2.3	Minor
University programs promoting physical exercise	79(29.8)	63 (23.8)	62 (23.4)	61 (23)	2.4	Minor

Note. ***Mean Cutoff = 2.5**

Statements with the highest means score indicating they are the strongest perceived facilitators are having a strong personal desire to be physically active and healthy ($\overline{X}$=3.09), feeling energetic and motivated ($\overline{X}$=3.07) and good physical health and absence of injuries ($\overline{X}$=3.02). This result shows

that internal personal factors like desire, motivation, energy, and good health are the most powerful drivers for physical exercise among the respondents who are also students.

4.1 Hypothesis Testing

The hypothesis tested is a null hypothesis (H_0): the level of knowledge of the benefits of participating in physical exercise is not a significant facilitator to engaging in regular physical exercise. The independent samples t-test was used to test this hypothesis.

Descriptive statistics

Table 6

Knowledge score of the Participants

Group	*N* (Sample Size)	Mean ($\bar{X}$)	Standard Deviation (SD)
Exercisers (Yes)	126	3.14	1.05
Non-exercisers (No)	137	2.88	1.08

From the table above (table 4.8), the mean knowledge score is observed to be slightly higher for the students that engage in exercise ($\bar{X}$=3.14) than for those that do not engage in exercise ($\bar{X}$=2.88).

Table 7

Independent samples t-test

Statistics	Value
t-statistic	1.956
Degrees of freedom (*df*)	261
**p*-value (2-tailed)	.0515

Note. **p* < .05

Since the calculated *p*-value (.0515) slightly exceeded than the significance level (α=.05), the null hypothesis (H_0) was not rejected, though the result was marginal. This indicates that, while students that exercise had a slightly higher mean knowledge score, the level of knowledge about the benefits of exercise is not a significant facilitator for engaging in regular physical exercise. This finding aligns with the barrier analysis, where "Lack of awareness about the benefits of physical exercise" was rated as the least significant barrier.

CHAPTER FIVE

DISCUSSION OF RESEARCH FINDINGS

The research findings are discussed below in line with the research findings that guided this study. This chapter also includes the implication of the result of the study to nursing, the summary of the study, and suggestions for further study.

5.1 Discussion of Findings

5.1.1 Knowledge of the Benefits of Physical Exercise

The first research question sought to determine the students' level of awareness of the benefits of engaging in regular physical exercise.

The analysed data revealed that students who engage in regular physical exercise possessed a slightly higher mean knowledge score exercise ($\overline{X}$=3.14) than for those that do not engage in exercise ($\overline{X}$ =2.88) and the level of knowledge of the benefits of physical exercise is not a significant facilitator of exercise adherence among the undergraduate students (p = 0.0515). The fact that "Lack of awareness about the benefits of physical exercise" was identified as the least significant barrier to regular physical engagement shows that the students are well aware of the benefits of physical exercise. This finding strongly aligns with previous empirical literature that consistently identifies students' high level of awareness of the benefits of physical exercise. For example, Ezeaku (2022) found that majority of the students possessed adequate knowledge of physical exercise. This study therefore reinforces the conclusion that the students are knowledgeable about the benefits of physical exercise.

5.1.2 Practice of Regular Physical Exercise

The second research question sought to determine the percentage of students that engage in regular physical exercise.

The survey revealed that 48.3% of law students participate in physical exercise regularly. This indicates a low rate of regular physical exercise. This finding is consistent across different student populations, even though the specific rates vary across different academic community and setting. Okeke et al. (2020) reported that 3.8% of the students exercised regularly and Alhammad et al. (2023) reported that only 16.2% of the students exercise regularly even though more than half of the student population engage in physical exercise. The literature indicates a low level of regular physical exercise among university students.

5.1.3 Barriers to Regular Physical Exercise

The third research question aimed to identify the barriers that prevent undergraduate law students from engaging in regular physical exercise.

The most significant barrier perceived by the students in this study is “Lack of time due to academic workload” ($\overline{\boldsymbol{X}}$ = 2.59), based on the qualitative analysis of the barriers. Although “Feeling too tired or lacking energy” and “Lack of motivation or willpower” are significant barriers with mean scores of 2.68 and 2.63 respectively, “Lack of time due to academic workload” is the most significant because it also has a high mean score and it is an external factor that is directly related to the unavoidable academic demands of the course of study unlike the former barriers which are perceived as internal barriers (individual-level barriers). Another notable barrier is the financial costs of regular workout programs and facilities with the highest mean score of 2.83. These findings are overwhelmingly consistent with the empirical literature, where time constraint is consistently identified as a significant barrier to exercise regardless of the academic community and setting. Time

constraint was reported to be the most significant barrier in Portuguese students (Alves et al., 2021), Nigerian students in Jos and Ukraine (Ezeaku, 2022), Spanish students (Carballo-Fazanes et al., 2020), Nigerian students in Lagos (Menakaya and Menakaya, 2022), Indian students (Alagappan et al., 2022) and in Saudi students (Alhammad et al., 2023). The findings also show that the stressful and demanding nature of Law's academic program constitute substantial obstacles to regular physical exercise rather than environmental factors and cost.

5.1.4 Facilitators of Regular Physical Exercise

The final research question sought to determine the facilitators undergraduate law students need to engage in regular physical exercise.

Empirical literature revealed individual-level or internal factors such as self-motivation and having a positive attitude to regular physical exercise are fundamental in enabling students to overcome barriers and prioritize exercise. The statements "having a strong personal desire to be physically active and healthy" ($\bar{X}$ = 3.09), "Feeling energetic and motivated" ($\bar{X}$ = 3.07), and "Good physical health and the absence of injuries" ($\bar{X}$ = 3.02) have the highest mean scores. This agrees with existing research that self-discipline and a strong sense of intrinsic motivation are needed to sustain regular exercise (Brown et al., 2024). Odunaiya et al. (2021) revealed health motivation (95%) to be the most significant facilitator to engaging in regular physical exercise in his study. Available literature such as Liu et al. (2023) also notes that self-motivation and the benefits of regular physical exercise such as weight control appear to drive exercise adherence among students, especially female students. Chen and Li (2021) showed that individuals who engage in physical exercise for internal reasons like the health benefits of physical exercise are more likely to maintain exercise adherence than those motivated by external factors like social recognition. This suggests that

students with strong intrinsic motivation and increased psychological capability are more likely to engage in regular physical exercise despite facing significant barriers.

5.2 Summary of the Study

This study assessed the barriers and facilitators that influence undergraduate law students in regular physical exercise. A descriptive cross-sectional survey design was employed for this research. The study population comprised of 265 students selected using convenience sampling technique from the Faculty of Law. A self-administered, structured questionnaire organized into four sections: demographic data, current physical exercise patterns, barriers and facilitators to engaging in regular physical exercise, was the primary and only data collection tool. The analysis of the data collected revealed that lacking energy, lack of motivation, and time constraints due to academic workload were perceived as most significant barriers to engaging in regular exercise. “Lack of awareness” being significant barrier suggested that students were aware of the benefits of physical exercise but struggle with exercise adherence. The most significant facilitators, “Having a strong desire to be physically active and health”, “Feeling energetic and motivated”, and “Good physical health and absence of injuries”, were found to be intrinsic and health-focused. The majority of students that engage in regular physical exercise report walking as their most frequent form of physical exercise followed by running, suggesting a preference low cost exercise that can be integrated in their daily routine. The study also found no significant relationship between the students’ level of knowledge about the benefits of physical exercise and their engagement in regular physical exercise, failing to reject the null hypothesis.

5.3 Implication to Nursing Science

a. Knowledge-behaviour Gap: Nurses often rely on providing health education by simply telling patients about the benefits of a particular action or behaviour. The finding that knowledge is

not a significant facilitator of exercise adherence suggests that health promotion interventions must shift to behavioural strategies that address motivation, time management, and overcoming mental and physical fatigue.

Nurses should learn to assess the intrinsic motivation and perceived barrier in students and patients alike. Interventions should also be tailored to every students or client and should promote accessible exercise activities and focus on managing and substantial barriers.

b. The Nurse as a Role Model: Research indicates that intrinsic motivation is the key driver of exercise adherence. Therefore, nurses must be equipped to be physically active role models. Understanding the practical barriers using insights from this study such as long hours at work can inform policies and programmes that support and promote nurses' fitness. Thus promote their capacity to promote exercise to their clients and patients.

c. Application to Nursing Students: Nursing students also face similar, if not greater academic demands regarding time, physical and mental fatigue related to clinical postings and rigorous academic schedules. This study provides a framework for investigating the barriers and facilitators of regular physical exercise among student nurses, and making adjustments to support the general wellbeing of students including motivating them to work out regularly.

d. Application of the COM-B model of Behaviour Change: The study's confirmation that knowledge alone is ineffective in motivating university students to exercise regularly supports the theoretical framework—the COM-B model of behaviour. The behaviour change wheel (BCW) posits that behaviour is a function of the interplay of capability, motivation and opportunity. The recent findings from this study confirms that a change in behaviour will be seen if capability is enhanced (through health education) in the presence of opportunity (such as having free time) and motivation (such as social support). Thus, there is a need to

incorporate behavioural models such as the COM-B model to plan health interventions, and into the nursing curriculum to teach nursing students to plan effective health promotion activities rather than focus only on traditional knowledge-based health promotion. This allows for a multifaceted approach of academic restructuring, social support, and motivation to target opportunity and motivation as factors of behaviour change, rather than relying on just improving students'capability through education.

e. Foundation for Health Promotion Models: This research provides a practical framework for the development of health promotion models relevant in nursing science for health educating high-stress, educated populations. Findings from this study directly address the roles of nurses in providing education and counseling that address psychological and structural barrier as well include educational approach. This approach ensures the provision of individualised, effective, patient-centred care.

5.4 Limitation of the Study

This study was carried out among the undergraduate students of the Faculty of Law, University of Benin (UNIBEN) in 2024/2025 academic session. The results may therefore apply to similar academic settings characterized by academic rigors and demands. This means that the results and conclusions from this study may not be directly generalizable to less demanding academic settings, different university environment, and the general youth population.

The study employed a cross-sectional survey design to collect the data for the study at a single point in time. Consequently, the research could not establish a cause-and-effect relationship between the variables; instead associations were identified between the variables. For example, the data collected shows a relationship between time constraints due to academic workload and lack of regular physical

exercise, but the study cannot conclude that time constraints due to academic workload is the definite cause of low exercise adherence among undergraduate Law undergraduate students.

Data collection for the study relied primarily on self-administered questionnaire. This approach is susceptible to self-report bias where participants might have distorted their answers to align their answers with expectations of good health behaviour, and recall bias where participants might have their response influenced by memory inaccuracy. For example, a participant may not remember exactly how many minutes of exercise he did the in the previous week. Both forms of bias affect the overall reliability of the self-reported data used in the study.

5.5 Conclusion

This study successfully identified the primary barriers and facilitators to engaging in regular physical exercise among undergraduate Law students at the University of Benin. The findings indicate that while students possess a high level on intrinsic motivation and desire to be healthy, their exercise behaviours are severely curtailed by academic-related constraints. This was evidenced by identifying physical fatigue and lack of time due to academic workload as the most significant factors which override the motivational factors. The study established a crucial finding that the gap between health knowledge and practical action of engaging in regular physical exercise is substantial. The preference for easily accessible activities such as walking and running indicates convenience as a key determinant of regular exercise adherence in an academically demanding environment. This research makes contributions to the existing body of knowledge in public health and health promotion, particularly within the context of tertiary institutions.

5.6 Recommendation and Practical Action of Engaging in Regular Physical Exercise

Based on the findings and conclusion from this study, the following recommendations are suggested.

1. Nurses and other health workers should integrate time management and goal setting in exercise promoting strategies.
2. In encouraging students to engage in regular physical exercise, the COM-B model of behaviour change should be used to motivate students to exercise regularly and enable them, overcome their barriers.
3. Nurses and health workers should provide regular health education to students and lectures alike to emphasize the concept of "Health First" in the academic environment. The health care providers are expected to approach the modification in the behaviour of students with patience and understanding.
4. Proper training should be provided to nurses and other health professional in managing health promotion awareness and campaigns in academic settings.
5. The study indicates that future health promotion efforts should also be allocated to skill-based interventions such as goal setting and time management rather than awareness campaigns only.

5.7 Suggestions for Further Study

These recommendations are based on filling the knowledge and methodological gaps identified in my research.

1. Further study could be done to compare the factors influencing regular physical among undergraduate students in public and private tertiary institution using the same academic community.
2. More studies that involve sampling similarly demanding academic communities such as Faculties of Nursing, Medicine, and Pharmacy should be done to identify the barriers and

facilitators of students unique to each program of to know if the factors are common across the different faculties.

3. A qualitative study is needed to explore university students' disinterest in physical exercise despite being aware of the benefits of physical exercise.
4. Future research should implement and evaluate the effectiveness of the recommendations proposed. A longitudinal design could measure if the effectiveness of recommended intervention to increase students' engagement in regular physical exercise.
5. Studies to examine the influence of the students' income level on regular physical exercise should also be conducted.

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Appendix I

Appendix II

Questionnaire
Faculty of Nursing Science,
University of Benin,
Benin City.

Dear Respondents,

My name is Anene Favour, I am a 500 level student of the Faculty of Nursing in the above named institution and I am carrying out a research on the topic "**BARRIERS AND FACILITATORS TO ENGAGING IN REGULAR PHYSICAL EXERCISE AMONG UNDERGRADUATE LAW STUDENTS OF THE UNIVERSITY OF BENIN".**

Physical exercise is any planned, structured, repetitive activity that is done with the aim of achieving and maintaining physical fitness and general health.

Instruction: Kindly assist me by filling accurately and indicating your opinion where necessary, and note that you can voluntarily withdraw from this study at any time without any negative consequence. This will take about 5 minutes to fill, thank you.

Section A: Demographic Information

1. Sex: Male [ ], Female [ ]
2. Age (on your last birthday): 18-20 years [ ], 21-30 years [ ], 31-40 years [ ], 41-50 years [ ], 50 years and above [ ]
3. Class level: 200 level [ ], 300 level [ ], 400 level [ ], 500 level [ ]
4. Marital status: Single [ ], Married [ ], Divorced [ ]
5. Religion: Christian [ ], Muslim [ ], Traditionalist [ ]
6. Ethnic group: Igbo [ ], Yoruba [ ], Bini [ ], Esan [ ], Urhobo [ ], Others_____

7. Do you currently engage in any form of regular physical exercise (for at least 1 hour a week)? Yes [ ], No [ ]

If you answered "No" to Question 7 in **Section A**, please proceed to **Section C**.

Section B: Physical Exercise Habits and Preferences

1. What physical exercise do you typically engage in? (Tick all that apply) Walking [ ], Running/Jogging [ ], Team sports (e.g., football, basketball, volleyball)[ ], Gym workouts (weightlifting, treadmill)[ ], Dancing[ ], Yoga/Pilates/Stretching [ ] Cycling [ ], Skating [ ]
2. On average, how many days per week do you engage in physical exercise? 3 days [ ], 4 days [ ], 5 or more days [ ]
3. On average, how long do you exercise in a day? 15-30 minutes [ ], 30-60 minutes [ ], 61-90 minutes[ ], More than 90 minutes[ ]
4. Where do you usually engage in physical exercise? (Tick all that apply) UNIBEN sports complex [ ], University gym [ ], Off-campus gym [ ], Outdoors (e.g., fields, roads) [ ], At home [ ].

Section C: Barriers to Engaging in Regular Physical Exercise

Please indicate the extent to which each of the following factors acts as a barrier to your participation in regular physical exercise.

Statement	Not a barrier	Slightly a barrier	Moderately a barrier	Extremely a barrier
1. Lack of time due to academic workload (lectures, assignments, etc.)				
2 Feeling too tired or lacking energy				
3. Lack of motivation or willpower.				

4. Lack of suitable facilities or equipment on campus				
5. Cost of gym memberships or sports activities.				
6. Feeling self-conscious or uncomfortable exercising in public.				
7. Lack of social support or exercise partners.				
8. Lack of awareness about the benefits of physical exercise.				
9. Difficulty fitting exercise into my daily routine.				

Section D: Facilitators to Engaging in Regular Physical Exercise

Please indicate the extent to which each of the following factors facilitates or encourages your participation in regular physical exercise.

Statement	Not a facilitator	Slightly a facilitator	Moderately a facilitator	Extremely a facilitator
1. Having free time				
2. Feeling energetic and motivated.				
3. Having a strong personal desire to be physically active and healthy.				
4. Good physical health and absence of injuries.				
5. Availability of accessible and convenient exercise facilities/spaces on campus.				
6. Affordability of exercise options (e.g., free facilities, low-cost activities).				
7. Feeling comfortable and confident exercising in my environment.				
8. Having friends or classmates as exercise partners.				

9. Pleasant weather conditions				
10. Having a good understanding of the health benefits of exercise.				
11. Support and encouragement from family, friends, and/or university staff.				
12. University programs promoting physical exercise (e.g., faculty games)				

Thank you for your participation!

Appendix III

Reliability of the Instrument

Scale	Items used	Cronbach's Alpha **(α)**	Interpretation
Barrier scale	9 items	0.7431	Good/Acceptable
Facilitator scale	12 items	0.7016	Good/Acceptable

Section C: Barriers to Engaging in Physical Exercise

Items	**Cronbach's Alpha (α)**	**Number of items (*k*)**	**Number of respondents (*N*)**
Barriers to exercise	0.7315	9	20

Item	**Mean**	**Cronbach's Alpha If Item Is Deleted**
Item 1	2.59	0.7162
Item 2	2.68	0.6834
Item 3	2.63	0.7373
Item 4	2.37	0.754
Item 5	2.83	0.7591
Item 6	2.06	0.701
Item 7	2.04	0.7063
Item 8	1.6	0.7431
Item 9	2.8	0.6603

Section D: Facilitators to Engaging in Regular Physical Exercise

Items	**Cronbach's Alpha (α)**	**Number of items (*k*)**	**Number of respondents (*N*)**
Facilitators of exercise	0.7016	12	20

Item	Mean	Cronbach's Alpha If Item Is Deleted
Item 1	2.8	0.6943
Item 2	3.07	0.6795
Item 3	3.09	0.6738
Item 4	3.02	0.6691
Item 5	2.65	0.6983
Item 6	2.78	0.6899
Item 7	2.77	0.6753
Item 8	2.57	0.6981
Item 9	2.6	0.653
Item 10	2.82	0.6772
Item 11	2.35	0.6823
Item 12	2.4	0.701

Comment: The reliability test is done using data collected from the 20 participants of the pilot study. The reliability is reported separately for each scale because the scales measure different constructs in the study. Since the obtained alpha values from both scales exceed the 0.70 threshold, they demonstrate acceptable internal consistency. This confirms that each scale will measure its respective construct respectively to produce results that are valid and replicable.