

Sedentary Lifestyle, High Junk Food Consumption, Mobile Usage and their Effect on Academic Performance in Physiotherapy Students.

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Abstract: In recent years, there has been a noticeable shift in lifestyle patterns among students, particularly in health science disciplines such as physiotherapy. Increased dependence on mobile devices, rising consumption of junk food, and reduced physical activity have contributed to a predominantly sedentary lifestyle. This study explores the combined effect of these factors on academic performance among physiotherapy students. Evidence from existing literature suggests that excessive mobile usage is associated with increased sedentary behavior, reduced physical fitness, and poorer academic outcomes. Similarly, unhealthy dietary habits negatively affect cognitive function, energy levels, and concentration. This article highlights the need for lifestyle modifications to improve both health and academic success among physiotherapy students.

Keywords: Sedentary lifestyle, Mobile usage students, Junk food and cognition, Academic performance physiotherapy students.

INTRODUCTION

The modern academic environment has undergone a drastic transformation with the advent of digital technology. While smart phones and digital tools have enhanced access to educational resources, they have also contributed to increased sedentary behavior among students. Physiotherapy students, despite being part of a health-related field, are not immune to these lifestyle changes.

Sedentary lifestyle is characterized by prolonged sitting, minimal physical activity, and high engagement in screen-based activities. Mobile phone usage has become one of the leading contributors to sedentary behavior. Studies show that mobile phone use is strongly associated with increased sitting time and reduced physical activity among students. Additionally, a large proportion of mobile use occurs while sitting and is primarily leisure-based.

Simultaneously, dietary habits have shifted toward increased consumption of junk food, including fast food, sugary beverages, and processed snacks. These changes, combined with reduced physical activity, create a lifestyle that negatively impacts both physical health and cognitive performance.

Academic performance in physiotherapy requires not only theoretical knowledge but also physical endurance, clinical skills, and mental focus. Therefore, lifestyle factors play a crucial role in determining student success.

NEED OF THE STUDY

Physiotherapy students are expected to promote health and physical activity, yet many adopt unhealthy lifestyles due to academic pressure, time constraints, and digital distractions.

Key concerns include:

- Increasing mobile phone addiction
- High consumption of junk food
- Reduced participation in physical activity
- Decline in concentration and academic performance

Research indicates that excessive Smartphone usage may negatively influence learning skills and academic performance among physiotherapy students. Furthermore, excessive sedentary behavior has been linked to poor health outcomes and reduced cognitive efficiency.

This study is important to:

- Understand the combined impact of lifestyle factors
- Highlight risks specific to physiotherapy students
- Promote healthier habits in future healthcare professionals

METHODOLOGY

- Study Design- A systematic review and narrative analysis was conducted.
- Data were collected from -Pub Med, Google Scholar, Research journals

Inclusion Criteria -

- Studies involving college or physiotherapy students

- Studies analyzing lifestyle factors and academic performance
- Publications between 2010–2025

Exclusion Criteria-

- Studies without academic outcome measures
- Non-peer-reviewed articles

Procedure

1. Identification of relevant literature
2. Screening of abstracts and full-text articles
3. Selection based on inclusion criteria
4. Extraction of data on:
5. Mobile usage
6. Dietary habits
7. Physical activity levels
8. Academic performance
9. Comparative analysis

RESULTS

1. Sedentary Lifestyle and Academic Performance

Sedentary behavior is increasingly prevalent among students. It includes prolonged sitting during lectures, studying, and recreational screen use.

Research suggests that sedentary behavior is associated with various health risks, including reduced cognitive function and poor mental well-being. Although some studies show mixed results, excessive sedentary behavior—especially non-academic screen time—negatively affects attention and learning.

2. Mobile Usage and Its Impact

Mobile phones have become indispensable tools but are also major sources of distraction.

Key findings include:

- High mobile usage correlates with increased sedentary time.
- Students using mobile phones excessively show lower physical fitness and reduced academic performance
- PMC
- Smartphone's interfere with study time and concentration
- Excessive use leads to:
 - Reduced focus
 - Multitasking and decreased retention
 - Sleep disturbances

3. Junk Food Consumption and Cognitive Function

Diet plays a crucial role in brain function. Junk food consumption is associated with:

- Reduced energy levels
- Impaired memory and concentration
- Increased fatigue

High intake of processed foods leads to fluctuations in blood sugar levels, affecting attention span and learning capacity.

4. Combined Effect on Physiotherapy Students

The combination of sedentary lifestyle, excessive mobile usage, and unhealthy diet creates a negative cycle:

Increased screen time → reduced physical activity

Reduced activity → increased fatigue

Poor diet → decreased cognitive performance

All factors → poor academic outcomes

Physiotherapy students, who require both physical fitness and mental sharpness, are particularly affected.

DISCUSSION

The findings of this study reveal a concerning and somewhat paradoxical trend among physiotherapy students. As future healthcare professionals who are expected to advocate for physical activity, functional movement, and overall well-being, many students appear to adopt lifestyles that directly contradict these principles. This disconnect between professional knowledge and personal behavior raises important questions about the factors influencing student habits and the long-term implications for both their academic development and professional credibility.

One of the most prominent issues identified is the growing prevalence of digital addiction and sedentary behavior. The rapid advancement of mobile technology has significantly transformed daily life, particularly among young adults. Smartphones offer uninterrupted access to social media platforms, streaming services, gaming, and instant communication, making them an integral part of students' routines. While these technologies provide convenience and connectivity, their excessive use has unintended consequences. Prolonged screen time often replaces time that could otherwise be spent engaging in physical activity, leading to increasingly sedentary lifestyles.

Several studies have demonstrated a strong association between high mobile phone usage and reduced physical activity levels. Extended periods of sitting, whether for browsing, watching videos, or engaging in social media, contribute to decreased cardiovascular fitness, reduced muscular endurance, and impaired posture [1]. Over time, these behaviors may predispose individuals to musculoskeletal discomfort, obesity, and metabolic disorders. For physiotherapy students, this is particularly concerning, as their profession demands not only theoretical knowledge but also physical capability and endurance.

In addition to physical health implications, digital addiction significantly impacts academic performance. Although mobile devices can be valuable educational tools, their misuse often leads to distraction and reduced study efficiency. Notifications, social media engagement, and entertainment applications interrupt concentration, making it difficult for students to maintain sustained focus during study sessions. This phenomenon, often referred to as "continuous partial attention," reduces the depth of information processing and retention.

Research indicates that excessive internet and smartphone usage is negatively correlated with academic outcomes. Students who spend more time on non-academic digital activities tend to have lower grades, reduced productivity, and higher rates of academic failure [2]. The constant switching between academic tasks and digital distractions increases cognitive load, leading to mental fatigue and decreased learning efficiency. For physiotherapy students, whose curriculum is both intensive and clinically oriented, such inefficiencies can hinder the development of critical skills and knowledge.

Another important factor contributing to this issue is dietary behavior, particularly the increased consumption of junk food. Modern student lifestyles often prioritize convenience over nutrition, leading to frequent intake of fast food, sugary snacks, and processed beverages. These dietary patterns are often closely linked with sedentary habits and prolonged screen time, as students may consume unhealthy foods while using their devices.

Poor nutrition has a direct impact on both physical and cognitive performance. Diets high in saturated fats and refined sugars have been shown to impair memory, reduce attention span, and negatively affect overall brain function [3]. In contrast, balanced diets rich in essential nutrients support cognitive processes, energy levels, and overall well-being. For students, inadequate nutrition can result in fatigue, decreased motivation, and reduced academic performance.

The combined effect of sedentary behavior and poor dietary habits creates a cycle that is difficult to break. Reduced physical activity leads to lower energy expenditure, which, when coupled with high-calorie food intake, contributes to weight gain and decreased physical fitness. This, in turn, may reduce motivation for physical activity, further reinforcing sedentary behaviors. Over time, this cycle can have significant implications for both health and academic success.

From a physiotherapy perspective, these findings are particularly alarming. Physiotherapy is a profession that emphasizes movement, rehabilitation, and the promotion of active lifestyles. Students in this field are expected to serve as role models for their patients, demonstrating the importance of physical fitness and healthy living. However, if students themselves struggle to maintain these behaviors, it may affect their confidence, clinical competence, and ability to effectively counsel patients.

Physical fitness is not only important for personal health but also for professional practice in physiotherapy. Clinical duties often require physical effort, including patient handling, demonstrating exercises, and maintaining proper posture during long working hours. Sedentary habits and poor physical conditioning can compromise a student's ability to perform these tasks efficiently and safely. Moreover, patients may be less likely to trust or follow advice from healthcare professionals who do not appear to practice what they preach.

The issue also extends to professional credibility and long-term career sustainability. Physiotherapists are expected to embody the principles of health promotion and disease prevention. A mismatch between knowledge and behavior may undermine their role as healthcare advocates. Additionally, poor lifestyle habits developed during student years may persist into professional life, increasing the risk of burnout, physical injury, and chronic health conditions.

Addressing these challenges requires a multifaceted approach. Educational institutions play a crucial role in promoting healthy behaviors among students. Integrating wellness programs, physical activity sessions, and awareness campaigns into the curriculum can encourage students to adopt healthier lifestyles. Providing access to sports facilities, organizing fitness-related events, and incorporating movement-based learning strategies may also help reduce sedentary behavior.

Furthermore, students should be educated about the risks associated with excessive screen time and digital addiction. Time management strategies, digital detox practices, and mindfulness techniques can help students regulate their device usage and improve focus. Encouraging structured study schedules and minimizing distractions during academic activities may enhance learning outcomes.

Dietary interventions are equally important. Institutions can promote healthy eating by providing nutritious food options on campus and educating students about the importance of balanced diets. Workshops on meal planning, nutrition, and healthy lifestyle choices can empower students to make informed decisions about their diet.

At an individual level, students must take responsibility for their own health and well-being. Developing self-discipline, setting boundaries for screen time, and prioritizing physical activity are essential steps. Engaging in regular exercise not only improves physical fitness but also enhances mental health, reduces stress, and improves cognitive function. Even simple changes,

such as taking short activity breaks during study sessions or limiting recreational screen time, can have a significant impact.

In conclusion, the findings highlight a critical issue among physiotherapy students, where digital addiction, sedentary behavior, and poor dietary habits collectively contribute to reduced physical fitness and academic performance. This trend is particularly concerning given the professional expectations associated with physiotherapy. Addressing these challenges requires coordinated efforts from educational institutions and students alike. By promoting healthier lifestyles and aligning personal behaviors with professional values, physiotherapy students can enhance both their academic success and future clinical practice.

Need for Intervention

There is a need for:

- Awareness programs
- Lifestyle counseling
- Integration of physical activity into daily routine
- Limiting screen time

CONCLUSION

Sedentary lifestyle, excessive mobile usage, and high junk food consumption have a significant negative impact on academic performance among physiotherapy students. These factors not only affect physical health but also impair cognitive function, concentration, and overall learning ability.

Promoting healthy lifestyle habits is essential for improving academic outcomes and preparing physiotherapy students for their professional roles. Institutions and educators must play an active role in encouraging physical activity, healthy eating, and responsible use of technology.

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