

Title: Assignment component 1
Individual Presentation Research Proposal

**PREVALENCE OF PHYSICAL
ACTIVITY AMONG STUDENTS IN A
PUBLIC UNIVERSITY**

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Module LCHS7001: Practice
based research

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AIM & OBJECTIVES OF THE RESEARCH PROPOSAL

AIM: To research the discrepancy and difference in the prevalence of physical health among a sample of individuals who derive from a range of ethnic backgrounds and are of different ages and genders.

OBJECTIVE: To compare these findings of physical health depending on selected independent variables.



INTRODUCTION

- Carrying out physical activity is fundamental to maintain one's well-being. This research proposal is key, as by understanding the current state of physical activity amid university students, interventions can be developed to promote healthier lifestyles and to overall enhance student well-being.
- The acknowledgment of importance of physical activity for optimal health has led to an increased pursuit and interest in assessing levels of physical activity behaviour. (U.S Department of Health & Human Services).
- Universities provide a catered, unique setting with a range of well-being/fitness & sports facilities. This is relevant to carry out an investigation for the prevalence of physical activity among students depending on their access to various resources within the institution and their diverse population.
- The following literature reviews aims to explore, critique and compare already existing studies on the prevalence of physical activity among students in the university setting. It will help highlight key findings, methodologies and implications for future research.



BRIEF LITERATURE REVIEW

One literature review was conducted with a comprehensive search utilising academic databases (PubMed & Google Scholar). The following keywords: "students" "exercise" "university" were used to identify relevant articles (from 2010 – 2023). Criteria was studies focusing on university students and the **aim** was to assess the prevalence of physical activity, this was done by reporting and analysing quantitative data found.

Results:

- Gender Differences: Research often demonstrates gender discrepancies in participation of physical activity among university students. Studies showcase that females tend to occupy less physical activity contrasted to male students. Factors such as societal expectations/body image concerns may contribute to these gender inequalities
- Socioeconomic factors play a role in underpinning and determining the prevalence of physical activity amongst university students. Students from lower socioeconomic backgrounds may face barriers, such as limited access to sports facilities or have more time commitments due to work, this can impact their ability to engage in frequent or a lot of physical activity.
- The university campus environment influences the prevalence of physical activity in universities. Due to accessibility of sports facilities and physical activity-related programs impact students' choices and maybe the lack of opportunities for exercising. Studies have shown that universities with well-designed crafted environments promote higher levels of physical activity.



BRIEF LITERATURE REVIEW

Another previous study had the aim to investigate the physical activity & dietary habits (along with health conditions) among 80 medical students (in 2nd year). This study also compared and drew the relationship of the level of physical activity with the implications of health and fat amount on body.

The physical activity prevalence was considered to be an independent risk factor for coronary heart disease, as lifestyle and dietary habits are largely established by this stage of adulthood. The physical fitness, diets and body compositions of the sample of 80 medical students were examined.

A questionnaire that reviewed the physical activity of the students, was returned by a total of 69 out of the eighty students (89%). 50% + reported none or demanding physical activity on a weekly basis, including weekends.

The body composition & cardiovascular fitness were assessed for 20 subjects, who were selected at random from the 69.

5 of 15 men had greater -than-desirable body fat, which again shows the gender differences as supported in the first literature study review and developments found in the study.



BRIEF LITERATURE REVIEW CONTINUED

- ***Why medical students?*** These students and this medical field was chosen due to the presumption that they would be well informed regarding exercise and having suitable diets (due to the influence they are expected to have over their patients in their future careers as doctors). This literature study is effective as it aims to remove biases and assumptions, which may be believed, to play a role in physical activity levels
- ***Similar trends?*** Only 33.3% of men had more body fat than women, if this is due to the amount of physical activity, this highlights the gender differences as supported in the first literature study review and in my hypothesis, suggesting it is a recurring factor for the difference in physical activity prevalence within many university populations.
- ***Issue?*** Those with greater body fat may be as a result of genetics, not only lifestyle and dietary routines, this may not be a suitable factor to associate with physical activity levels and its prevalence, also due to individual differences.



RESEARCH METHODOLOGY

My study is a form of empirical research which is based on measurable and observable studies by acquiring knowledge from testable experience, rather than only from statistics and theories.

Descriptive statistics will be utilised to analyse my data.

The findings should be able to be reproduced and recreated by others to increase the reliability of my study and research.

I intend to carry out a study with quantitative research through the process of sampling a target population to observe physical health among students, I will do this by getting the students to complete surveys regarding their physical activity levels. Surveys are efficient as it obtains responses over a larger geographical area (the different campuses and university locations) and it strives to source secure information about current practices, lifestyles and conditions

The survey will include:

-15 students filling out details and answering questions about their age group, ethnic background, university facilities, awareness of physical activity and the recommendations and proximity of events (e.g. if facilities are local) and their genders (independent variables) and about the amount of physical activity carried out within a time frame, which will outline a correlation between these factors, this information will remain confidential due to protection of privacy and ethical concerns.



HYPOTHESIS

- A **directional hypothesis** suggest if there is a positive or negative correlation between two different variables
- I hypothesise the knowledge that students have regarding physical activity recommendations will impact how much exercise they carry out; hence this will be one of the questions included in the survey/questionnaire that I will distribute.
- My directional hypothesis is that an increase in age among university students will result in a decrease in physical activity, which in turn may result in poorer health conditions. Whereas younger university students may partake in a higher number of physical activities, although this does depend on the individual's lifestyle, as there may be other implications and factors limiting the student from carrying out physical exercises.
- I also hypothesise that there will be a significant difference for the prevalence of physical activity among females and males due to self perception and societal expectations because many literature -based research demonstrates gender differences for physical activity as mentioned.



RESEARCH DESIGN, ETHICAL CONSIDERATION

As a researcher, it is crucial to understand and employ secure, valid practices, for example I will be securing approval (e.g., from the institutional review board, the university and students), I will be controlling all variables that may be anticipated that might affect my results and ensuring I manage students' data and keeping it confidential, also using an appropriate statistical method for analysis to evaluate and interpret my data.

To avoid ethical issues, I will be controlling all variables in order to eliminate bias and reduce effects of any unanticipated variables on the research data and results, failure to adequately control variables suggests a lack of research design, which will lead to invalid data and will present or publish invalid data which is unethical.

Also, all participants in the research will be fully debriefed beforehand, for example before agreeing to or actually completing the survey and submitting their personal information as this is a breach of privacy and their rights.

Violating any of these, whether it is with intention or not can be considered highly unethical.



SAMPLING & RECRUITMENT OF PARTICIPANTS

Population: The number of the entire set group of individuals, the group can comprise a nation /group of people with a common particular characteristic.

Sample: a small fraction/quantity that is intended to represent what the whole set's nature and what it is like

My target population, the pool of individuals from which the statistical sample is drawn for a study, includes 50 students from the universities of London. My sample frame is 15 students, 15 out of the 50 participants from the population will be researched. The inclusion/ exclusion criteria will be randomly sampled (eg. Drawing names out of a box/ volunteers)

Recruitment for study participants will involve me going face to face and leveraging my personal network to source volunteers from public universities by outlining the aim of my research to them.



SAMPLING TECHNIQUES

Stratified sampling: I aim to make a survey/questionnaire/poll to know what physical activity people in local universities engage in in their spare time. We may presume that elder people may not have the same activities than middle-aged people as with the youth. I am investigating to receive all this information to try to find a more representative sample by including all the groups to complete my poll. I am intrigued in getting all these defined groups (strata) represented in my sample.

My population of size N can be divided into subpopulations (stratus)

Advantages of stratified sampling includes:

- I can obtain more precise information inside the subpopulations about the variables I am studying.
- precision can be increased of the estimators of the variables of the whole population.

Random sampling is another technique that eliminates bias.



RESEARCH DESIGN

This is the overall strategy that I will use, I will integrate the different several components of the study in a logical way, ensuring to effectively address the proposed research of 'the prevalence of physical health among university students'. My strategies and research design will include and comprise the following:

- **Causal-Comparative/Quasi-experimental Research:** as I aim to establish the link between the cause and effect of relationships and correlations among the variables that affect levels of physical activity carried out by students and the prevalence of said activity.



RESEARCH TIMELINE

Research phase	Objectives	Deadline
1. Background research and literature review	• Meet with supervisor for initial discussion • Read and analyze relevant literature • Use new knowledge to refine research questions • Develop theoretical framework	Week 1:
2. Research design planning	• Design questionnaires • Identify channels for recruiting participants • Finalize sampling methods and data analysis methods	Week 2:
3. Data collection and preparation	• Recruit participants and send out questionnaires • Conduct semi-structured interviews with selected participants • Transcribe and code interviews • Clean data	Week 3:
4. Data analysis	• Statistically analyze survey data • Conduct thematic analysis of interview transcripts • Draft results and discussion chapters	Week 4:



RESEARCH SCHEDULE

Work schedule – Gantt chart

	July				August			
Identify research area								
Formulate research questions								
Formulate research strategy, research design and select methods		7th						
Write research proposal			8th					
Negotiate access			12th					
Literature review			10th					
Data collection								
Data analysis								



RESEARCH BENEFIT AND IMPORTANCE

- Globally, the mortality rates have changed greatly during the 20th century worldwide, with a decrease in the occurrence and frequency of infectious diseases and rather, concerningly, an increase in more lifestyle-related diseases can be seen and noticed. This phenomenon has changed the focus of epidemiological research as the risk factors that are associated with chronic diseases have been investigated in numerous studies
- These studies have provided evidence of the importance of physical activity as a preventative factor for such diseases, hence why investigating the prevalence and lack of physical activity is significant to detect the areas and communities (particularly among university students) in which more activity/exercise must be promoted and carried out for the well being of individuals and society as a whole.



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