

Practice based research (LCH7001)

RESEARCH PROPOSAL

DATE: 18 JULY 2023

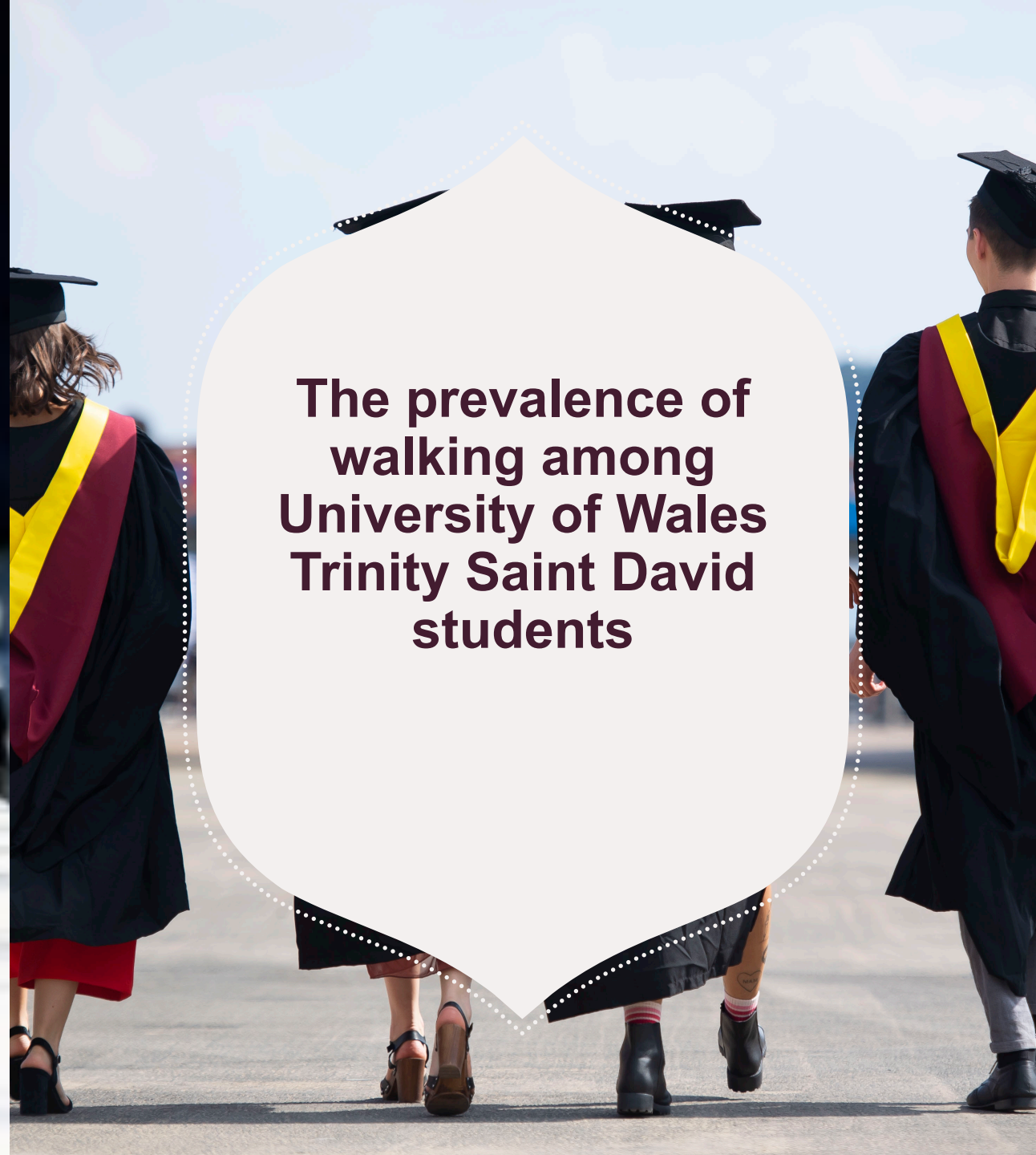


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**The prevalence of
walking among
University of Wales
Trinity Saint David
students**

Introduction

- Walking represents the most natural form of exercise that is advised for the population's health. It can be done anywhere by anyone (O’Kane, et al., 2020).
- WHO (2020) suggest that people between the ages of 18 to 64 years old should moderately exercise 150-300 minutes weekly.
- The Department of Health and Social Care (2019) on the other hand suggests that people aged 19 to 64 years old should moderately exercise 150 minutes weekly.



Introduction

Meeting the recommended physical activities guidelines can improve:

- Physical health by preventing/decreasing obesity; maintaining/straightening muscles; preventing/managing chronic diseases (Public Health England, 2017).
- Mental health by reducing/managing stress, anxiety, motivation, self-esteem (Mind, 2020).
- Social by decreasing isolation and enhancing social interaction (Shvedko, et al., 2020)
- Environmental by reducing pollution (Marmett, et al., 2020).
- Societal by save treatments costs for NHS; increased academic performance (BMA, 2019).



Image source: https://www.nicepng.com/ourpic/u2e6r5t4u2w7t4i1_icons-walking-tour-walking-tour-png/

Background

- Nowadays in the UK, there are approximately 2.4 million students registered in tertiary schools with 69.2% aged between 18 and 24 years old and 11% aged between 25-34 years old (British Active Students Survey, 2020).
- 16.5% of the age group of 18-24 and 21% of the age group of 25-34 years old do not meet the minimum physical activities recommended (British Active Students Survey, 2020).
- Students argue that the pressure of homework, exams and assignments is frequently an impediment to exercise (Yusefzadeh, Iranagh and Nabilou, 2019).

	 Inactive <30 mins	 Active 150 mins+
Survey population	14%	76%
AL (16–24 years)	17%	74%
AL (25–34 years)	21%	67%

Image source: <https://www.bucs.org.uk/static/f352c43b-621d-44ae-8a44cfeb2196771c/BASS-2019-HE.pdf>

Background

- Physical activity discipline in adulthood starts from childhood routines (Telama, et al., 1997).
- Primary and secondary schools have introduced mandatory two hours per week of physical education (WHO, 2016).
- Between 2019 and 2020 in the UK “*Walk to School Outreach*” initiative has improved walking to school by 40% (Heaton-Harris, 2021).
- Therefore, in 2021 UK’s government invested £2.1 million in the “*green initiative*” aiming to facilitate youths to walk to schools (Heaton-Harris, 2021).



Image source: https://www.shutterstock.com/search/go-to-school-icon?image_type=vector

Literature review (secondary research)



Literature Review (database collection)

- Databases used: Google Scholar.
- Inclusion criteria: university students older than 18 years old, studies conducted only in the UK, studies conducted only on the prevalence of walking among students, studies done in the last 10 years, only primary quantitative research.
- Exclusion criteria: studies with participants younger than 18 years old, studies done before 2013, studies done anywhere else in the world except the UK, qualitative studies.
- Key words used alongside Boolean operators “OR” and “AND”: prevalence, commonness, frequency; students, undergraduate, postgraduate; walking; commute; university, college.
- Initial search has generated 17.000 journals, 10 journals have been selected for abstract screening then only 5 were considered relevant for thorough reading.

Journals and publication year	Methods used	Sample size	Location
Journal 1. (2017)	Cross-sectional online survey	8122 Undergraduates students 50.9% women, 49.1% man aged between 18-35 years old	Ireland
Journal 2. (2019)	Cross-sectional questionnaire	250 full time University students aged between 18-30 years old	United Kingdom
Journal 3. (2015)	Cross-sectional study	1049 University students	Students of 17 universities from UK and Ireland
Journal 4. (2019)	Semi-structured interviews mixt method, quantitative and qualitative	384 University students	Multiple Universities in Bristol

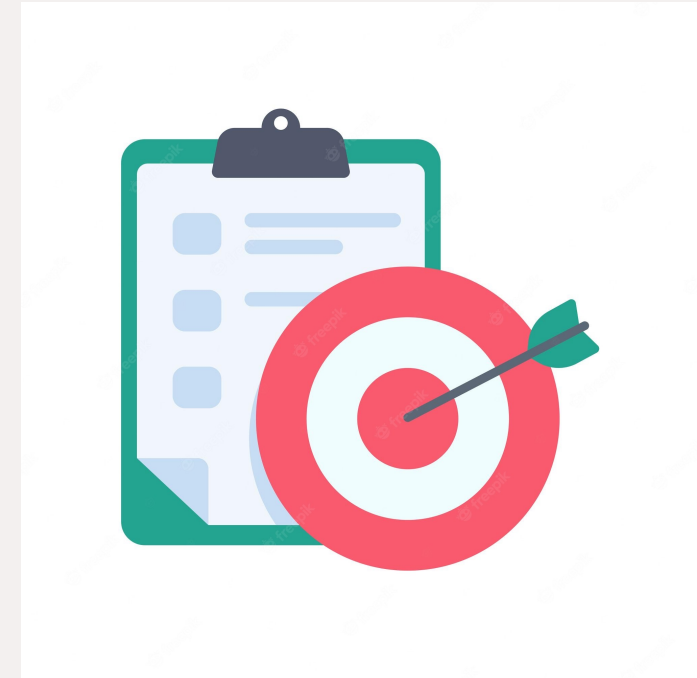
Literature review

- The journals reviewed for this research are indicating that the choice of walking is influenced by numerous factors such as:
- Financial statue, students that choose walking as a commute did not have a high income.
- Family situation, females' mothers did not have enough time.
- Behavior choice, students moved so they can be within a walking distance from the universities, or they choose to walk because they did not like waiting in the busy traffic.
- The gaps identified in the literature that require further research on the older group of female students, attitudes and social factors such as dangerous walking routes and clean walking pathways (Murphy, et al., 2017; Davison, Ahern and Hine, 2015; Hagggar, Whitmarsh and Skippon, 2019, Bornioli, Parkhurst and Morgan, 2019)



Aim and objectives

- Aim: To find out walking prevalence and the factors that contribute to the choice of walking among students.
- Objective 1: To determine the prevalence of walking as commute among students to the university.
- Objective 2: To determine if gender/sex, attitudes and social factors are contributors to the choice of walking among students.
- Objective 3: To identify areas of improvement for promoting walking as a form of commute.



Research question

- How many students at University of Wales Trinity Saint David engage in walking as a form of activity?



Research rationale

According to WHO (2021), approximately 1.4 billion adults are not physically active, and it has not changed since 2001.

Between 2001-2016 poor physical activity has raised by 5% in developed countries (WHO, 2021).

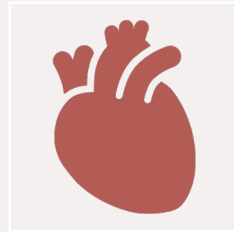
Insufficient levels of physical activity among people impacts negatively the healthcare system, climate, economic evolution, individual well-being and life quality (WHO, 2021).

Despite being the only country in the world to have physical activities guidelines for all ages (WHO, 2016), the UK's physically active adult population is only 61.4% and that has not changed in the past six years (GOV.UK, 2022).

Research rationale



Moreover, in 2016 cardiovascular disease was the worlds leading cause of death, killing 17.9 million people (WHO, 2023).



Being physically active can improve the overall performance of the heart, therefore, diminishing exposure to cardiovascular diseases (Samuel, et al., 2020).



Also, depression and anxiety were the leading reason for the international mental health-related burden in 2020 (Santomauro, et al., (2021).



According to Pascoe, et al. (2020), physical activity not only reduces symptoms of anxiety and depression but can also prevent it.

Research methodology

$$\frac{m_1 m_2}{d^2}$$

$$\psi = \hat{H} \psi$$

$$\phi(x) = \frac{1}{\sqrt{2\pi\sigma}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$$

$$E = mc^2$$

$$ds \geq 0$$

$$\frac{df}{dt} = \lim_{h \rightarrow 0} \frac{f(t+h) - f(t)}{h}$$

Hypothesis

Null Hypothesis:

The female students that are mothers will not commute by walking to the university.

Experimental Hypothesis

Students that are living within walkable distance between the university and their home will commute by walking.

Research Paradigm

Positivism is a philosophical model that leans on measurement and justification, that learning is indicated from an unbiased and quantifiable statement of action or response (Shanks and Bekmamedova, 2018, p. 199).

The nature of the problem is prevalence of walking among students

The research problem will be studied using a quantitative data collection from the students.

The data will be communicated using quantifiable data (numbers).

Research design

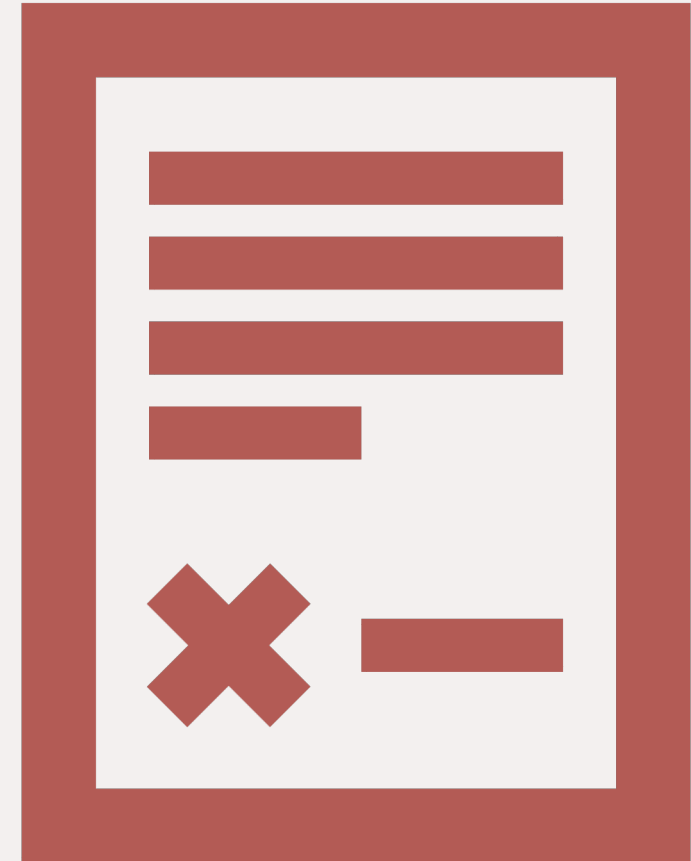
- Data collection: Primary cross-sectional survey, quantitative approach.
- Data analysis: Descriptive statistics will be collected from participants separately (Men/Female), the important differences between man and females in commuting by walking will be analyzed with the statistical software STATA to understand if the gender differences plays a role on the choice of walking.
- Sample: All students at University of Wales Trinity Saint David (5 765).
- Sampling methods: Probability sampling method, simple random sampling (every student will have a chance of being selected).
- Limitations: Because the sample is relatively large a complete list of the students may not be available in time and minorities subgroups within the university students might not be selected.

Ethical consideration

- Researchers' awareness of Research ethics is an important part of planning research because it demonstrates to both the reader and the participants that the research has been carried out with full disclosure without exposing participants to any danger (Cacciattolo, 2015, p.55).
- The purpose of the study should increase advantages for people and communities and decrease danger and damage (UK Data Service, 2023).
- In research, Ethics is a method that guides the study's composition and procedures including unforced participation, informed approval, anonymity, confidentiality, possibility for disadvantage and outcomes communication (Fleming, 2018).

Ethical consideration

- In this research, every participant will be handed a paper form to which they have to consent. The form will inform them that they are free to choose to participate, there will be no names mentioned, the data collected will be stored in confidentiality, and the probabilities of harm will be well described.



Research implications

- The implications of a research project are conclusions drawn from the study results (CORE, 2015).
- The implications of this ongoing research will inform policymakers, universities and the government that more efforts regarding studying mothers, and distance from the university to students' home places must be taken into consideration when promoting walking.





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Timetable

Week 1	Week 2/3	Week 4	Week 5/6	Week 7	Week 8/9	Week 10	Week 11	Week 12
1) Background research on the prevalence of walking among students.	2) Developing the research questionnaire for the survey 3) Contacting possible participants and sending the questionnaire	4) Transcribing the questionnaire data	5) Questionnaires data analysis 6) Writing survey results draft	7) Revising draft 8) Sending a form for ethical approval	9) Writing background and information's about the research (methodology)	10) Writing and analyzing the results	11) Writing a discussion and conclude the research	12) Revise all research

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