

MSc Public Health and Social Care in Practice

Component 2- Written Research Proposal

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Research proposal

1-Proposed title of research: The impact of type 2 diabetes on the physical and mental health and wellbeing of adults ages 65 and above in the UK: A systematic literature review

2-Prevalence of diabetes among older adult population:

The risk of an individual to be diagnosed with diabetes increases as they get older (Yan *et al.*, 2023). This is because as the human body decreases there is impairment of energy homeostasis and changes in carbohydrate metabolism (Mordarska and Godziejewska-Zawada, 2017). Along with physiological changes, older adults are also more likely develop diabetes due to sedentary lifestyle which will increase insulin resistance (Chentili, Azzoug and Mahgoun, 2015).

In the UK, over 4.3 million have been living with diabetes (Xie *et al.*, 2026). Older adults aged 65 and above, make 16% of cases of the disease in the UK (see Figure 1). This percentage is forecasted to increase due to the increase in aging population. Older adults are projected to make up 4.9% of the UK population by mid-2049 (ONS, 2026). This means that more people will be exposed to diabetic risk factors as age increases. For example, Body Mass Index (BMI) is more likely to increase with age (NHS Digital, 2024). This means that they will be more likely to develop obesity which then can lead to diabetes (Klein *et al.*, 2023). The increase in prevalence causes the health and social care sector to have longer waiting lists and there will be increase in burden.

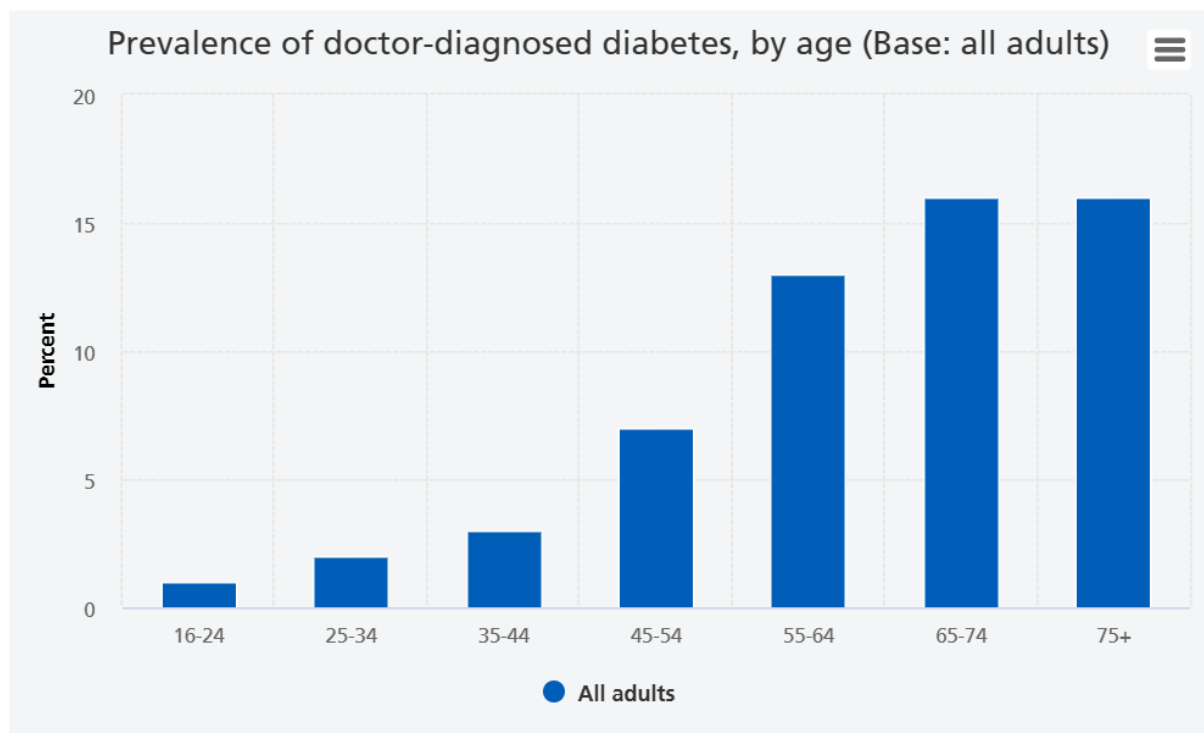


Figure 1: Prevalence of diabetes diagnosed by doctors. This graph compares the percentage of diabetic populations by age groups. The groups with lower prevalence are aged between 16-24 meaning that they are more likely to be active meaning that their metabolism is faster and is functioning compared to the age groups aged 65 and above where they have higher prevalence due to likely decrease of active lifestyle and metabolism speed (NHS Digital, 2026).

3-Introduction:

This research proposal is made to highlight the key points of the research project. The key points highlighted in this proposal include the background of diabetes which is a disease-causing increase burden in the healthcare sector and is a growing public health concern. This disease was found to lead diabetic older patients to develop symptoms of depressions (Beverly *et al.*, 2016), meaning that it creates a strong negative impact on their emotional wellbeing. Past research also found that there is risk for older diabetic patients to develop other diseases and syndromes which create challenges in their lives (Kalra and Sharma, 2018). Having this knowledge will assist in analysing the issues in current policies and interventions so improvements can be suggested. The research proposal also includes methods of research to allow the project to be replicated by other researchers investigating diabetes or similar topics.

4-Rationale:

Diabetes is a metabolic disorder that affects how the body processes blood glucose (Ojo *et al.*, 2023). This disease occurs through the body's resistance to insulin due to increased abdominal fat (Johnson and Olefsky, 2013) or lack of production of insulin due the destruction of beta cells in the pancreas (Antar *et al.*, 2023). These different causes lead to different types of diabetes.

Type 2 diabetes is caused by the resistance of the insulin (Galicia-Garcia *et al.*, 2020). This causes are originated through modifiable factors such as poor diet, sedentary lifestyle, smoking and excessive alcohol consumption (Yang *et al.*, 2022).

It is important to discuss diabetes among older adult population in the UK as it is a growing public health concern that many people are not aware about. The older adults in the UK are facing various crisis such as loneliness. Currently, there are 1.2 million older adults living in chronic loneliness in the UK (Puyan   *et al.*, 2020). This type of crisis will affect their mental health negatively which can impact their physical health causing them to be at higher risk of developing diabetes (Akhaury and Chaware, 2022). By discussing diabetes, linked issues which worsen or might increase the risk of diabetes will also be discussed to increase

awareness about them and to assist in decreasing the prevalence of the disease among the age group. This research is conducted to identify the additional issues that is challenging the lives of older patients suffering from diabetes and raise awareness of them to readers and researchers so they can be further discussed in future research. By finding new issues which diabetic older patients might be facing, it means that new interventions might be implemented to address the negative impacts that the diabetic older adults are facing mentally and physically.

5-Research Question and its aims:

Research question: What are the negative impacts of type 2 diabetes on the health and wellbeing within the older adult population above the age of 65 in the UK?

To answer the above research the following aim will be utilised: Exploring the impact of diabetes on health and wellbeing among older adults aged 65 and above in the UK.

The objectives created to answer the above are:

- 1- To identify major physical health impacts and complications linked with type 2 diabetes in the UK among adults aged 65 and above.
- 2- To identify impacts of type 2 diabetes in older adults to their mental health, independence and wellbeing.
- 3- To analyse the policies and management methods available to address type 2 diabetes for older adults aged 65 and above.
- 4- To recommend best practices for managing impact of type 2 diabetes in older adults in the UK by identifying gaps in the health and social practice.

6-Research methodology:

For this research, systematic literature review will be utilised. Systematic literature review is a method that is utilised to synthesise different types of evidence to create an eligibility criteria for the research (Brignardello-Petersen, Santesso and Guyatt, 2025), to assess the quality of the studies included for the research. To assist, the Critical Appraisal Skills Programme (CASP) tool used to analyse the quality of articles will be utilised. CASP will identify the strengths and limitations of the chosen resource through a checklist (Long, French and Brooks, 2020). If the material meets the requirements, it will be used in the research.

To collect data for this research, secondary research will be used to collect qualitative data and quantitative data if required. Secondary research is a collection method that utilises existing data made by different researchers to answer newly created research questions

(Kelly, Martin-Peters and Strohm Farber, 2024). This method is suitable for this project as it does not contain participants or collects data in first hand.

6.1-Research design:

This research will contain seven chapters containing information which will contribute to the answering of the research question. Chapters are used to maintain the flow of information and allow readers and other researchers to read in a logical manner that will lead them to understand the research as a whole and not only the answer for the research question. The first chapter of the research will be the introduction. This chapter will contain the rationale, aims and objectives of the research so readers and researchers can understand the context which will assist them into understanding and interpreting the findings and recommendations (Tavakol and O'Brien, 2023). This chapter will also include the background of the research topic which is diabetes. Diabetes context at global and at national levels to explain how this is a serious on growing problem which is now affecting the older adult populations and is forecasted to increase in prevalence. The second chapter of this research is literature review is where data will be synthesised to create research eligibility criteria by evaluating existing studies. The third chapter will present the methodology utilised to answer the research question through the aim and objectives. Presenting methodology is important mainly for researchers as it shows understanding of methods and systems utilised, reliability and shows that research is repeatable if one decides to investigate the same topic (Garg, 2016). Following this, the fourth chapter will include data evaluation. Data evaluation is the process of assessing if pieces of information are of high quality, relevance and reliability. A sign that indicates that the data contain these factors is if they are peer reviewed. This is one of the aspects that are going to be analysed. The next chapter is containing the data analysis and synthesis. These are important so readers and researchers can understand how all information was broken down and processed to ensure that they are associated with the research question. The sixth chapter is discussion. This will elaborate on an answer for the research question. As the answer is elaborated, policies and current interventions to address diabetes in older adult population in the UK will be explored. To sum up all findings, the seventh chapter will include recommendations which will target current policies or strategies used in this growing public health problem that may not be effective, and it will suggest new methods that could be applied to assist on the problem.

The seventh chapter will be followed by references which have different sources from different authors for additional reading and shows good quality of work. It is important to have this section in research as it shows that there is additional information on the research which solidifies arguments and increases the credibility of the work (Santini, 2018).

6.1.1-PEO:

PEO (Population, Exposure and Outcome), is a framework utilised in qualitative research that assists in formulating research questions (Capili, 2020). Population refers to those that are the centre focus in research, exposure is the focus of an area of interest, and the outcome refers to individual's or a group's experience with the exposure. For this research the PEO is the following:

Population: Older adults in the UK aged 65 and above

Exposure: Living with type 2 diabetes

Outcome: physical and mental health and quality of life

6.2-Data collection:

To obtain different reliable resources, databases are going to be utilised. Databases are collections of different types of data or resources stored in a computer (Berrington, 2017). Databases are reliable to find sources as they provide different types of sources which are peer-reviewed. Peer-reviewed materials are crucial as it ensures that the information on the resources is truthful and accurate. For correct information in sources, peer review is carried out by experts in the same area of the researcher (Ali and Watson, 2016).

The databases that are going to be utilised to find books, e-books, articles and journals include PubMed, Google Scholar and UWTSD library as these are credible to find materials related to the research topic.

To demonstrate the process of data collection, PRISMA follow chart following the 2020 guidelines will be utilised. This is important because it shows transparency in the review of articles through the process of reporting (Page *et al.*, 2021). This will also show the quality of the research by showing the process of studies selection through show the number of identified records, duplicates removed, screened studies, studies assessed and of excluded records with reasoning (Rethlefsen and Page, 2022).

To find definitions, policies and statistics, the materials that will be used are from credited organisations such as the National Health Service (NHS), World Health Organisation (WHO) and the National Institute for Health and Care Excellence (NICE). These resources will allow the comparison approaches towards diabetes as WHO gives a global data overview and the NHS and NICE are UK focused.

6.2.1-Search terms and Boolean operators:

To make this research specific 'Booleans operators' (AND, OR and NOT) will be used to ensure that the resources obtained are focused on the desired research topic by removing or combining different concepts through keywords (MacFarlane, Russel-Rose and Shokrane, 2022).

Key words: type 2 diabetes, UK , older adults, policies and NHS

6.2.2-Inclusion and Exclusion criteria:

Inclusion and exclusion criteria are research features that assist in targeting a specific group in population (Patino and Ferreira, 2018). These features help determine which group is the focus of research. The exclusion criteria indicate characteristics and factors that are not desirable for the research.

For this research, the inclusion criteria is the following:

- Older adults aged 65 and above
- Diagnosed type 2 diabetes
- Resources in English
- Resources focused in the UK
- Peer reviewed resources due to high reliability
- Resources from 2010 to 2026

For this research, the exclusion criteria is the following:

- Resources published in languages other than English
- Non-peer reviewed materials as they are less reliable
- Studies focused outside of the UK
- Resources focused on diseases other than diabetes
- Resources older than 2010 would be too old for the focus of this research

6.3-Proposed data analysis:

Thematic analysis is a method utilised to identify and analyse common themes within the data gathered (Ahmed *et al.*, 2025). Thematic analysis starts by reading the different types of resources to understand the content, following this, coding is done by labelling different concepts that are relevant to the topic of research. The last step is theming where common themes are finally identified based on the previous steps (Saunders *et al.*, 2023). The benefits

of using this method of data analysis are that it is flexible meaning that it can be adjusted to any studies, it is easy to learn and to apply to studies. Additionally, this method leads to researchers being organised with their data as it summarises key information (Nowell *et al.*, 2017). In this research the Braun and Clarke's six-stage thematic analysis framework will be utilised. The steps of this framework are familiarisation with data where researchers identify the important sections; generating initial codes to highlight key features of the studies; searching for themes, this step gathers data for each potential them; reviewing themes, this step verifies with the themes are correlated to the initial codes; defining and naming themes, this process is where analysis and specification of themes occur; and writing the report, where a final analysis occurs to relate to the research question (Braun and Clarke, 2006).

7-Ethical considerations:

Ethical considerations are values followed by researchers as a moral compass in research (Hasan *et al.*, 2021). Ethical considerations were created with the purpose of protecting the dignity, rights and wellbeing of participants in research (WHO, no date).

The ethics specifically followed by the researcher are the 'Research Ethics & Integrity Code of Practice' from the University of Wales Trinity Saint David to ensure that good academic research practice was applied and no misconduct occurred (University of Wales Trinity Saint David, 2022). The ethics applied included honesty through referencing authors throughout the work as their research assisted in supporting argument, transparency by carrying out an effective and correct data analysis. This also prevents the occurrence of plagiarism which is a poor academic practice where someone presents someone's work as their own or presenting their work without proper acknowledgement such as plagiarism (Lalwani, 2025). By preventing plagiarism, it shows that the research followed good academic practice, shows that the research is original and that all data was correctly collected and synthesised, increasing the reliability of the research.

8-Implications of research:

This research aimed to address the subject of diabetes amongst the older adult population in the UK. Since this topic is not as discussed or explored there are risks of resources being limited since the main group on this investigation is older adults. By just focusing on this group, it means that secondary resources are at risk of being limited and outdated. This means that the research findings could be applied to a past complication of the public health sector while addressing diabetes in older adults rather than current and future situations. To ensure that this potential resource issue does not affect the findings, deep research among the different databases must occur to certify that all data is accurate and up to date.

The findings of this research will impact future investigations about this case as the findings are only limited to older adults. Future investigations might use the finding to compare to other age groups to then investigate diabetes within the whole population. This would lead to the implementation of specific strategies to tackle the disease and prevent the increase of prevalence.

9-Plan of work and time schedule:

A Gantt Chart was created to ensure that all tasks are done effectively (see Table 1). This gives a visual layout of research processes. This chart is effective as it allows to track time, identify what tasks are missing and which are more urgent. The benefit of using this is that it assists reaching goals while balancing with tasks unrelated to the research. From the below Gantt chart, it is seen that each task has a starting date and a deadline, this is to ensure that the whole research is completed before the deadline so the remaining time can be used to add the final details and corrections of the research. As chapters are being worked on, the references will simultaneously be worked on to ensure that all sources of information are cited correctly and that they are listed correctly. For further organisation, the chapters estimated to have a larger amount of content will be prioritised by having a longer deadline compared to other chapters.

Table 1: Research Gantt chart. This chart contains the beginning and deadline for the tasks required to complete the research on time.

Tasks	WEEKS (September-December 2026)																September	October	November	December	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Deadline				
Rationale																	07/09/2026				
Aims and objectives																	07/09/2026				
Historical background																	14/09/2026				
International context																	21/09/2026				
National context																	28/09/2026				
Data collection																	12/10/2026				
Inclusion criteria																	19/10/2026				
Exclusion criteria																	26/10/2026				
Data analysis																	16/11/2026				
Ethical considerations																	16/11/2026				
Results																	01/12/2026				
Thematic analysis																	07/12/2026				
Discussion																	14/12/2026				
Recommendations																	21/12/2026				
Conclusion																	21/12/2026				
References																	21/12/2026				

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