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Written Research Proposal

The Impact of Socioeconomic Inequalities on Stroke Recovery Outcomes in the UK

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1. Title of the Proposed Research

The Impact of Socioeconomic Inequalities on Stroke Recovery Outcomes in the UK

2. Prevalence of the Problem

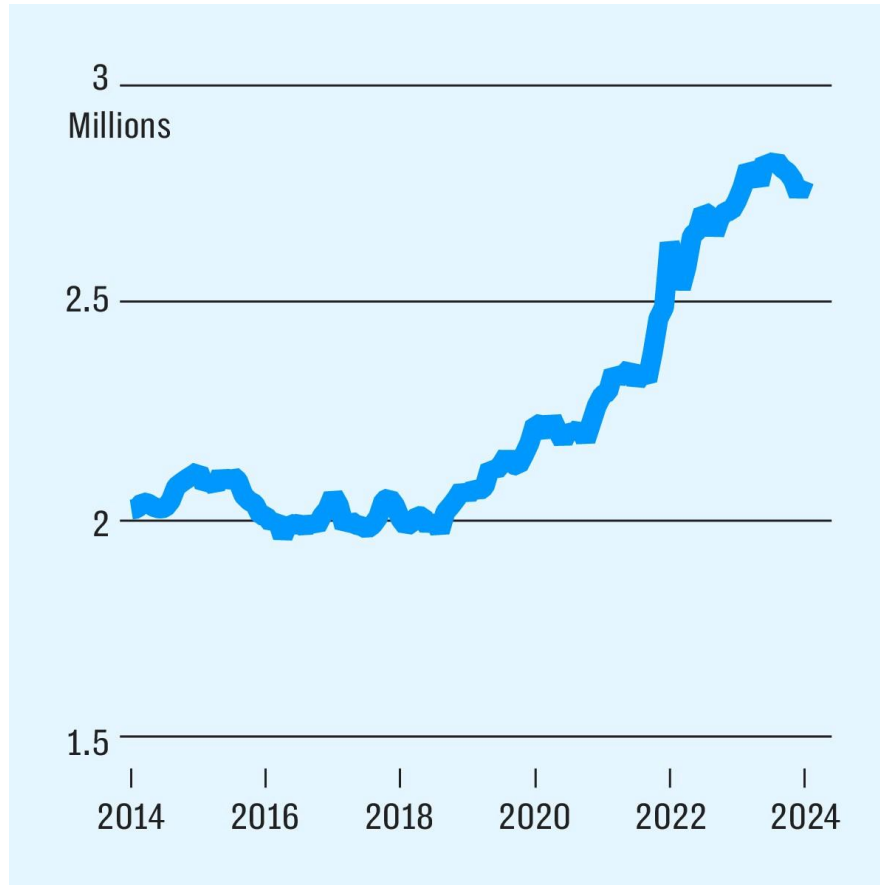


Figure 1: Stroke Cases in Britain

(Source: Donnelly, 2024)

Stroke is a significant disease which can cause death. It causes 38,000 deaths every year due to stroke, making it the fourth leading cause of death in the UK (Donnelly, 2024). Poor socioeconomic status contributes to a higher chance of stroke among individuals at a young age. These issues are important because they can improve the quality of care offered to patients who have had a stroke and the accomplishment of equal health outcomes across communities.

3. Introduction and Literature-Based Background

3.1 Introduction

Stroke is also a leading cause of death in the UK. The rise in the number of stroke admissions in England is reported in the NHS England data to 111,137 in 2023/24 against 87,069 in

2004/05 (England NHS, 2024). The recovery from stroke can be involved with many factors, including health services, rehabilitation and social services. This study will help to analyse the challenges to see the SES circumstances in the stroke recovery procedure. This study will help provide a suitable treatment method for all stroke patients, regardless of their socioeconomic status.

3.2 Literature-Based Background

3.2.1 Socio-economic Inequalities and Stroke Recovery

One of the greatest risks that slower stroke recovery is low socio-economic status (SES) (Adeniji and Fagbemi, 2025). People of low social status are expected to experience strokes at a younger age and face more challenges during recovery. Such factors as poor living conditions, unhealthy lifestyle, and access to preventive care are factors that promote stroke, especially in low SES. Karia, Zamani and Akrami (2021) explained that the socio-economic factors also influence access to healthcare services, which may delay the diagnosis and treatment of neurological conditions such as stroke. Low-income earners can have difficulty accessing rehabilitation services, using medicines or other medical prescriptions, and interpreting medical guidance because of reduced health literacy. These are some of the obstacles that lead to unequal recovery and the necessity of more inclusive stroke care.

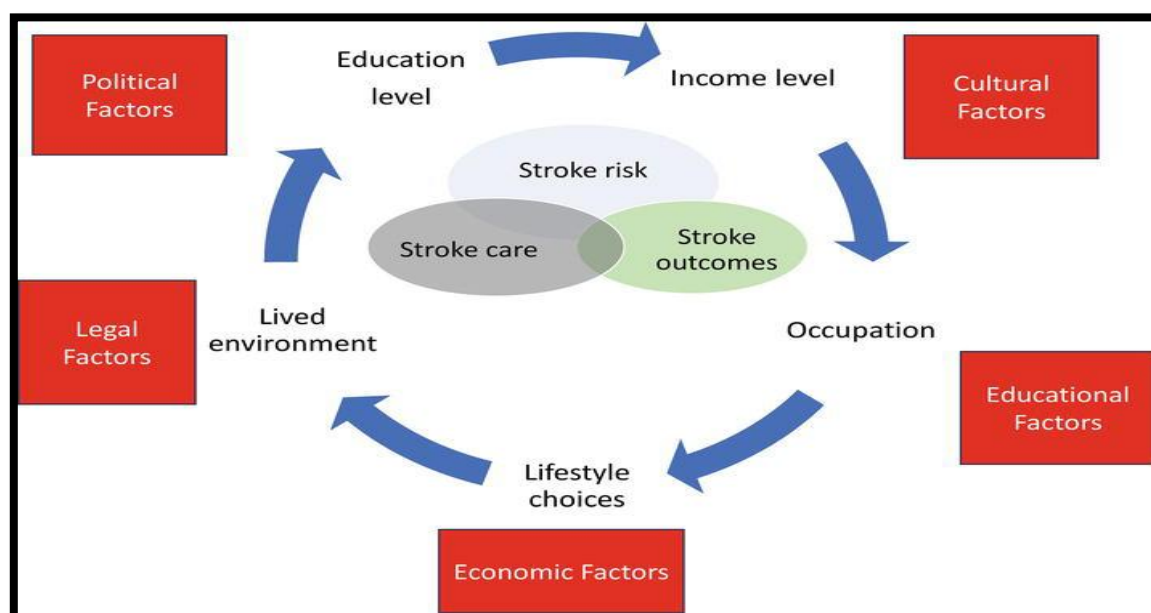


Figure 2: The Interaction Between Structural and Intermediate Determinants of Health and Stroke Risk, Stroke Care and Outcomes

(Source: Adeniji and Fagbemi, 2025)

3.2.2 Barriers to Equitable Rehabilitation and Support Service

A poor referral system can delay access to timely care, even in those cases when stroke survivors may need care immediately or without delays or when they may need a diagnostic test (Michael *et al.*, 2025). The hospitals, the general practitioners and the rehabilitation teams may have communication breakdown resulting in missed appointments, follow-ups and misinterpretation of the treatment plans. Not all people have equal access to the recovery services for stroke. Geographic, racial, and socioeconomic disparities continue to pose a risk that unfavourably affect the entire area of stroke care. It may also result in the rise of morbidity and fatality rates among the patients with low socioeconomic status in cultural settings (Ifejika *et al.*, 2025). The less developed or rural community may not have sufficient rehabilitation centres, travel time and access to special care. These challenges could delay the recovery process and the quality of life of the stroke survivors. In addition, other individuals may not be able to receive the offered services because of language and cultural barriers.

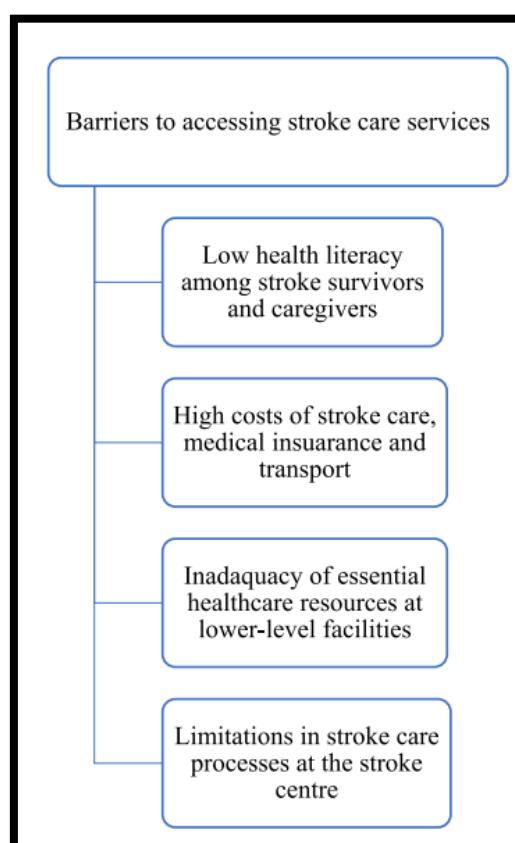


Figure 3: Barriers to Accessing Stroke Care Services

(Source: Michael *et al.*, 2025)

3.2.3 The Role of Social Factors on Recovery Outcome

Education, income and socioeconomic status (SES) are the social determinants of post-stroke recovery and health outcomes. Availability of higher education and a consistent level of income can help them have access to medical services and enhance information regarding medical prescriptions, as well as empower the systems. The effects of social determinants of education, income, and socioeconomic status (SES) not only influence the overall health outcomes and mortality rate across the world (O'Halloran *et al.*, 2024). On the other hand, people who have lower educational knowledge and low income are struggling for better care, housing and a better-quality life. Social support is also important in enhancing recovery effects. Group exercises facilitated stroke-specific group interventions, provided social support in terms of group encouragement, positive reinforcement and motivation, confidence boosting, and mood enhancement (Towfighi *et al.*, 2023). Group activities also make stroke survivors feel less alone and more willing to go through with their rehabilitation. It is also a community-forming experience, and this aspect may help boost emotional well-being and confidence. These results indicate that social conditions and support networks are significant to successful stroke recovery.

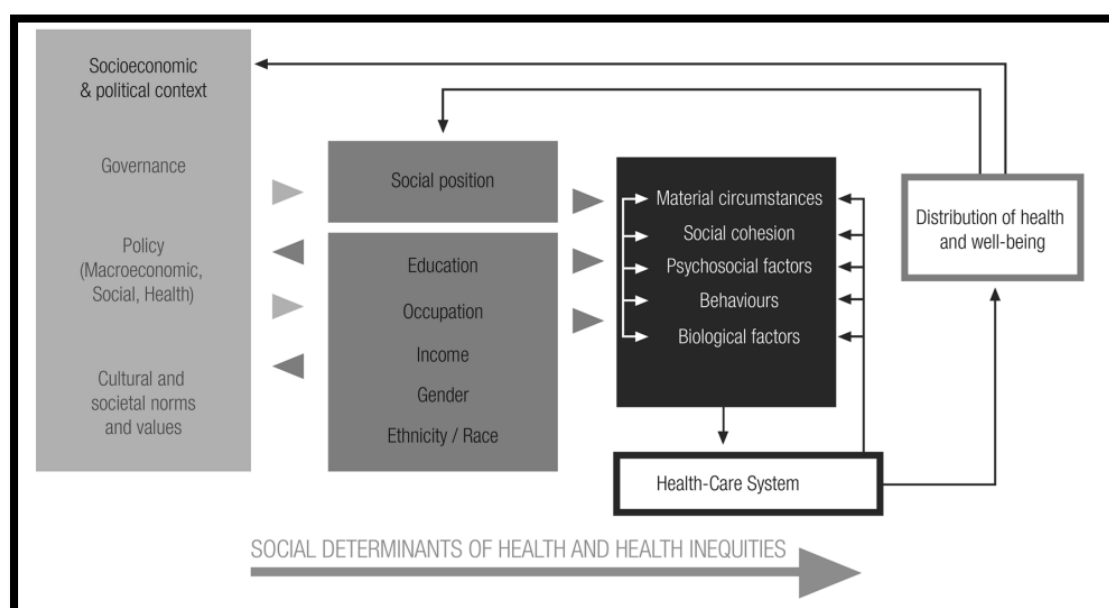


Figure 4: Commission of Social Determinants of Health conceptual framework

(Source: O'Halloran *et al.*, 2024)

3.2.4 Theoretical Framework

The Health Belief Model (HBM)

One of the most used models in healthcare is the Health Belief Model (HBM), which is used to guide health education in an attempt to help participants train, adopt, and sustain healthy behaviours (Liu *et al.*, 2024). HBM can be used in stroke recovery since it helps to understand why not all individuals might adhere to the rehabilitation procedure or consultations. Low health literacy, fear or lack of motivation may be factors that can affect recovery behaviour.

Social Determinants of Health (SDH) Theory

The Social Determinants of Health (SDH) theory is centred on non-medical factors, forces, systems and/or conditions under which people are born, grow, work and live that contribute to conditions of everyday life that affect health outcomes (Windsor *et al.*, 2022). It assists in understanding the impact of income, education, housing, and employment on stroke recovery. Lower socioeconomic populations have many obstacles in the way of receiving care, health education, and long-term recovery. The theory facilitates the purpose of the study to delve into the connection between social and economic circumstances and stroke outcomes.

SDH focuses on the external factors, including income and housing; on the contrary, HBM explains the influence of beliefs on the health behaviours that may be applied to clarify the inequalities and problems of recovery. The two theories, SDH and HBM, can highlight the complicated nature of the social circumstances, personal beliefs and outcome relation in stroke recovery.

4. Research Rationale, Question, Aims and Objectives

4.1 Research Question

How do socioeconomic inequalities influence the recovery of stroke in the UK?

4.2 Research Aim

The study aims to analyse the effects of socioeconomic differences on recovery from stroke in the UK. It will also identify the obstacles and offer solutions to make the healthcare environment better in a fair way.

4.3 Research Objectives

- To examine the relation of socioeconomic status and stroke recovery outcomes.
- To determine some of the challenges encountered by people due to socioeconomic status in stroke recovery.

- To suggest ways of improving the recovery process among people with low-income backgrounds.

4.4 Research Rationale

As socio-economic status can affect a person's recovery, the study will find barriers caused by socio-economic status that affect the recovery of stroke patients at diverse socio-economic levels to promote fair treatment.

5. Research Methodology Section

5.1 Research Design

The systematic literature review (SLR) study design will be adopted in this research to examine the impact of socioeconomic inequalities on stroke recovery outcomes in the UK. The SLRs help create research backgrounds, classify information gaps, and explain scholarly review (Paul, 2025). The study will utilise secondary research by examining published studies as opposed to primary research to gather new data. These methods aim to discuss society's systematic and real-world issues and involve realistic and explanatory approaches to diverse subject matters (Taherdoost, 2022). It is both an easier and cost-effective method of researching sensitive health issues (Taherdoost, 2021). It will be based on a qualitative research approach with an interpretivist philosophy that seeks to know social experiences and patterns based on the available evidence.

A structured search strategy is going to be created in order to direct the review process based on the PICO/PEO statement. The PRISMA protocol to evaluate the methodological value of reviews (Sarkis-Onofre *et al.*, 2021). The relevant literature will be identified using the academic databases. There will be inclusion and exclusion criteria that will be used to filter the studies, and a PRISMA flow chart will be employed to record the selection process. The design will assist in determining the important themes, barriers, and recommendations of past studies that will help in an improved comprehension of the role of social and economic determinants on stroke recovery outcomes in the UK.

5.2 Recruitment, Sampling and Study Participants

A systematic literature review will be employed in this research, and therefore, there will be no direct participant recruitment. The research study will not involve collecting new information from people, but rather it will be based on an analysis of the available research papers, which have already examined stroke survivors in the UK. Nevertheless, in the selection of studies to be incorporated in the review, a purposive sampling technique will be applied. Purposeful

sampling is the selective sampling of information to study deeply (Nyimbili and Nyimbili, 2024). It involves selecting the studies that help to find relevant answers for the research question and give elaborate details on the impact of the socioeconomic factors on the recovery of stroke.

The chosen studies will involve stroke survivors with various socioeconomic statuses, including low-income populations, low-education populations, and deprived populations. Such diversity will assist the review in obtaining a large range of experiences and challenges. The selection of the studies will rely on apparent inclusion criteria, including the publication date, which will be between 2020-2025, and the studies must be concerned with the socioeconomic disparities in stroke recovery. Through purposeful sampling in the literature, the study will be able to make the results relevant, specific, and practical to comprehend the impact of social and economic factors on recovery efforts.

5.3 Materials/Data Collection Method(s)/procedure

This study will involve a systematic literature review of the available research on stroke recovery and socioeconomic inequalities in the UK. Data collection will be done in accordance with PRISMA protocol, Preferred Reporting Items for Systematic reviews and Meta-Analyses, to improve the quality of systematic reviews (Prisma Statement, 2025a). It offers an organised and clear procedure for selecting and reviewing research. It will be presented in a PRISMA flowchart that will indicate the identification, inclusion or exclusion of studies, with reasons for exclusions (Prisma Statement, 2025b). This would assist in guaranteeing transparency and consistency during review. A PICO/PEO statement will be the search strategy, as it assists in formulating the population, intervention, comparison, and outcome or Population, Exposure, Outcome, that may be applied to the research question (Hosseini *et al.*, 2024).

To identify relevant studies, academic databases like PubMed and Web of Science will be utilised. The search terms shall encompass combinations, such as “stroke recovery”, “socioeconomic status”, “health inequalities”, and “the UK”. The inclusion criteria will involve articles published since 2020 and written in English, and research on stroke recovery with emphasis on the socioeconomic determinants. Research will not be included in the study that is either not based in the UK or where there is no clear information as to the socioeconomic impact. This will be the only method that will allow only high-quality and relevant literature to be included in the analysis.

5.4 Proposed Data Analysis Technique

Data obtained on the basis of the selected studies will be thoroughly analysed to identify the trends and concepts associated with the recovery of stroke and socioeconomic differences.

Thematic analysis involves the recognition of trends in terms of themes (Lochmiller, 2021). The method helps in categorising the complex information into meaningful clusters that reflect the issues in real life. Codes will be grouped under broad themes that may reflect global issues and determinants related to socioeconomic status and stroke recovery. Based on the themes, the impacts of different social and economic circumstances on the experience of recovery will be explained. One of the themes can be restricted access to rehabilitation, financial crises, or social support. It will be analysed based on the 6-step model developed by Braun and Clarke (Ahmed *et al.*, 2025). These are familiarisation, coding, development of themes, review, defining and naming themes, and reporting (Ahmed *et al.*, 2025). It will also increase the validity of the research findings.

5.5 Ethical Considerations

The ethics will be incorporated into the planning of all ethical procedures that will be conducted before the commencement of the review to ensure that the research will uphold privacy, fairness, and academic honesty. It also ensures responsible use of the sources. Despite the fact that the research will be based on secondary data, it will adhere to the UK GDPR and the Data Protection Act 2018 to carry out the research in an ethical manner (ICO, 2025; Legislation, 2018). The research will also adhere to the UK Copyright, Designs and Patents Act 1988, where all published resources will be ethically used and referenced properly (Legislation, 1988). There will be no collection of personal data, and all the studies will be managed with scholastic integrity. The ethical consciousness will be upheld during the process to safeguard intellectual property and maintain the quality of the research.

6. Implication of Research

Through a systematic literature review, the study will provide credible evidence of previous research to justify its findings. This approach assists in outlining trends, obstacles, and solutions in several studies, thereby increasing the reliability of the findings and their applicability to decision-makers. The study will assist in enhancing awareness of the impact of socioeconomic disparities on stroke recovery in the UK. This information can be used by professionals in the field of governmental health, policymaking, and service providers on the necessity of more inclusive and balanced recovery services. It is also possible to design interventions to address the health disparity and improve the outcomes of the disadvantaged populations with the help of the study. The acquired knowledge can be utilised to assist in contributing towards research on how to plan future studies, improve the rehabilitation planning and come up with new policies that have a higher probability of promoting fairness and improved quality of life to all stroke survivors.

7. Plan of Work and Time Schedule (Gantt Chart)

Phase/ Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Select the Topic																	
Introduction and Literature Review																	
Rationale and Research Question, Aims and Objectives																	
Select Methodology																	
Data Collection																	
Data analysis																	
Complete the proposal																	
Submission																	

Table 1: Gantt Chart

(Source: Self-Created)

Reference List

Adeniji, O.A. and Fagbemi, A. (2025) 'Socio-Economic Inequalities in Stroke: A Global Perspective'. Available at: DOI: 10.5772/intechopen.1010685

Ahmed, S.K., Mohammed, R.A., Nashwan, A.J., Ibrahim, R.H., Abdalla, A.Q., Ameen, B.M.M. and Khedhir, R.M. (2025) 'Using thematic analysis in qualitative research', *Journal of Medicine, Surgery, and Public Health*, 6, p.100198. Available at: <https://doi.org/10.1016/j.glmedi.2025.100198>

Donnelly, L. (2024) *NHS alert over 'shocking' rise in strokes in middle age*. Available at: <https://www.telegraph.co.uk/news/2024/11/16/stroke-middle-aged-50s-warning-nhs/> (Accessed: 07 November 2023).

England NHS (2024) *Hospital admissions for strokes rise by 28% since 2004 – as NHS urges the public to 'Act FAST'*. Available at: <https://www.england.nhs.uk/2024/11/hospital-admissions-for-strokes-rise-by-28-since-2004-as-nhs-urges-the-public-to-act-fast/> (Accessed: 07 November 2023).

Hosseini, M.S., Jahanshahloo, F., Akbarzadeh, M.A., Zarei, M. and Vaez-Gharamaleki, Y. (2024) 'Formulating research questions for evidence-based studies', *Journal of Medicine, Surgery, and Public Health*, 2, p.100046. <https://doi.org/10.1016/j.glmedi.2023.100046>

ICO (2025) *The UK GDPR*. Available at: <https://ico.org.uk/for-organisations/data-protection-and-the-eu/data-protection-and-the-eu-in-detail/the-uk-gdpr/> (Accessed: 07 November 2023).

Ifejika, N.L., Awosika, O.O., Black, T., Duncan, P.W., Harvey, R.L., Katz, D.I., Kimberley, T.J., Lutz, B., O'Neil, F., Stein, J. and Yallapragada, A.V. (2025) 'Improving access to stroke rehabilitation and recovery: a policy statement from the American Heart Association/American Stroke Association', *Stroke*, 56(9), pp.e218-e233. Available at: DOI: 10.1161/STR.0000000000000493

Karia, A., Zamani, R. and Akrami, M. (2021) 'Socio-economic disparities in access to diagnostic neuroimaging services in the United Kingdom: a systematic review', *International Journal of Environmental Research and Public Health*, 18(20), p.10633. Available at: <https://doi.org/10.3390/ijerph182010633>

Legislation (1988) *Copyright, Designs and Patents Act 1988*. Available at: <https://www.legislation.gov.uk/ukpga/1988/48/part/II/chapter/II/crossheading/introductory> (Accessed: 10 November 2023).

Legislation (2018) *Data Protection Act*. Available at: <https://www.legislation.gov.uk/ukpga/2018/12/section/1> (Accessed: 07 November 2023).

Liu, Z., Sun, X., Guo, Z.N., Sun, Y., Yang, Y. and Yan, X. (2024) 'Effects of a planned web-based Educational intervention based on the Health Belief Model for patients with ischemic stroke in promoting secondary Prevention during the COVID-19 Lockdown in China: quasi-experimental study', *JMIR mHealth and uHealth*, 12, p.e44463. Available at: <https://doi.org/10.2196/44463>

Lochmiller, C.R. (2021) 'Conducting thematic analysis with qualitative data', *The qualitative report*, 26(6), pp.2029-2044. Available at: <https://doi.org/10.46743/2160-3715/2021.5008>

Michael, N.A., Mselle, L.T., Bureta, C.A., Mkoka, D.A. and Cao, Y. (2025) 'Barriers and facilitators to accessing stroke care services in Tanzania: an explorative qualitative study among stroke survivors, caregivers and healthcare providers', *BMC Health Services Research*, 25(1), p.848. Available at: <https://doi.org/10.1186/s12913-025-13026-8>

Nyimbili, F. and Nyimbili, L. (2024) 'Types of purposive sampling techniques with their examples and application in qualitative research studies'. Available at: <https://doi.org/10.37745/bjmas.2022.0196>

O'Halloran, R., Renton, J., Harvey, S., McSween, M.P. and Wallace, S.J. (2024) 'Do social determinants influence post-stroke aphasia outcomes? A scoping review', *Disability and Rehabilitation*, 46(7), pp.1274-1287. Available at: <https://doi.org/10.1080/09638288.2023.2193760>

Paul, J. (2025) 'Crafting impactful systematic literature reviews: Thumb rules and suggestions', *International Journal of Consumer Studies*, 49(5), p.e70103. <https://doi.org/10.1111/ijcs.70103>

Prisma Statement (2025a) *Welcome to the PRISMA website*. Available at: <https://www.prisma-statement.org/> (Accessed: 10 November 2023).

Prisma Statement (2025b) *PRISMA flow diagram*. Available at: <https://www.prisma-statement.org/prisma-2020-flow-diagram> (Accessed: 10 November 2023).

Sarkis-Onofre, R., Catalá-López, F., Aromataris, E. and Lockwood, C. (2021) 'How to properly use the PRISMA Statement', *Systematic reviews*, 10(1), p.117. <https://doi.org/10.1186/s13643-021-01671-z>

Taherdoost, H. (2021) 'Data collection methods and tools for research; a step-by-step guide to choose data collection technique for academic and business research projects', *International Journal of Academic Research in Management (IJARM)*, 10(1), pp.10-38. Available at: <https://hal.science/hal-03741847v1/file/Data%20Collection%20Methods%20and%20Tools%20for%20Research%20.pdf>

Taherdoost, H. (2022) 'What are different research approaches? Comprehensive review of qualitative, quantitative, and mixed method research, their applications, types, and limitations', *Journal of Management Science & Engineering Research*, 5(1), pp.53-63. Available at: <https://doi.org/10.30564/jmser.v5i1.4538>

Towfighi, A., Boden-Albala, B., Cruz-Flores, S., El Hussein, N., Odonkor, C.A., Ovbiagele, B., Sacco, R.L., Skolarus, L.E. and Thrift, A.G. (2023) 'Strategies to reduce racial and ethnic inequities in stroke preparedness, care, recovery, and risk factor control: a scientific statement from the American Heart Association', *Stroke*, 54(7), pp.e371-e388. Available at: DOI: 10.1161/STR.0000000000000437

Windsor, L.C., Jemal, A., Goffnett, J., Smith, D.C. and Sarol Jr, J. (2022) 'Linking critical consciousness and health: The utility of the critical reflection about social determinants of health scale (CR_SDH)', *SSM-population Health*, 17, p.101034. Available at: <https://doi.org/10.1016/j.ssmph.2022.101034>