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The practicability of adapting a cardiovascular rehabilitation programme for  
Transient Ischemic Attack and mild stroke patients.

Lawal, Muili ORCID logoORCID: <https://orcid.org/0000-0002-1502-3884> (2025) The practicability of  
adapting a cardiovascular rehabilitation programme for Transient Ischemic Attack and mild stroke  
patients. Evidence based nursing.

**This is the Accepted Version of the final output.**

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**Author's declarative title:** The practicability of adapting a cardiovascular rehabilitation programme for Transient Ischemic Attack and mild stroke patients.

**Commentary on:** Walton L, De Mendonca J, Preston E, et al. Transient Ischemic Attack and Mild Stroke participant perspectives on barriers and enablers to participation in cardiovascular rehabilitation: A qualitative study guided by the Theoretical Domains Framework and Capability, Opportunity, Motivation and Behaviour Model. *Journal of Cardiovascular Nursing* 2024;00: 00.

## **Commentary**

### **Implications for practice and research**

- Cardiovascular rehabilitation is a suitable prevention training for patients with coronary heart disease including those with TIA or mild stroke.
- Further research on how best to adapt existing cardiovascular rehabilitation programmes for other cardiovascular diseases with similar modifiable risk factors would be valuable.

### **Context:**

Effective implementation of appropriate evidence-based cardiac rehabilitation programmes (CRP) reduces the risk factors and reoccurrence of coronary heart disease. The Department of Health Cardiovascular Disease Outcomes Strategy recommends the use of existing CRP for people after TIA and mild stroke<sup>4</sup>. Consequently, this study<sup>1</sup> explored the barriers and facilitators to cardiovascular rehabilitation programme participation and strategies to enhance engagement among people with TIA and mild stroke. Walton et al (2024) correlate the barriers and enablers to cardiac rehabilitation attendance with theoretical domains framework and capability, opportunity, motivation, and behaviour model to identify strategies to enhance engagement<sup>1</sup>.

### **Methods:**

This qualitative study was run alongside a 2-arm randomized controlled trial<sup>2</sup>. Semi-structured interviews were conducted with people who had received a diagnosis of TIA or mild stroke (within the previous 12 months or longer) and had participated in either the cardiovascular rehabilitation training or usual care group of the trial. Participants for the qualitative study were required to have attended at least one cardiovascular rehabilitation training session. A purposive sample of participants across different gender, diagnosis, number of sessions attended, and marital status of consented people were selected. Twenty participants aged 49–88 years who had attended five out of the six programme sessions within the trial narrated their views. Thematic analysis was used, and two independent researchers coded and analysed the transcripts and later met to agree the subthemes and major themes<sup>1,3</sup>.

### **Findings:**

The six key themes that emerged from the study highlighted the barriers and motivating factors to engagement coupled with measures to aid participation. These themes were mapped to the Theoretical Domains Framework and capability, opportunity, motivation, and behaviour model<sup>1</sup>. The barriers to participation include lack of resources, stroke severity, and poor referral system. Lack of engagement also

resulted from distance, functional impairment leading to minimal benefits, safety concern during exercise, education design and delivery method. The motivators are family support, ability to drive, group sessions associated with shared peer learning, fear of recurrent events, and perceived benefits of the programme.

### **Commentary:**

The broader literature shows that appropriate referral of patients with cardiovascular disease to secondary prevention programs promotes positive lifestyle behaviour change<sup>1</sup>. The study added to the findings of earlier research<sup>4</sup> indicating that the barriers and motivating factors to attendance amongst people with TIA and stroke were similar to those found among people with coronary disease<sup>4</sup>. Therefore, the authors argued that existing CRP may be suitable for people with TIA and mild stroke.

The strategies that may influence attendance at a cardiac rehabilitation programme include measures to enhance the referral pathways with a consideration for electronic referral approach and provision of accessible programme locations<sup>1,3</sup>. The strength of the study includes lack of previous relationship with the participants, reflexivity, independent coding and analysis plus the participant validation of the data. However, the study presents some methodological weaknesses which include lack of inclusion of non-attenders and potential subjectivity biases. Nevertheless, the application of a framework and model add meaning to the interpretation of the findings.

This study emphasized the importance of lifestyle-based secondary prevention programme in promoting health ownership. Factors impacting engagement varies and ranges from patients and professionals' factors to organizational issues<sup>1,3</sup>, therefore, measures geared towards addressing these barriers are essential to improve the quality of service and patient experience throughout the entire disease journey. Whilst these findings align with several other previous research evidence on this topic<sup>1</sup>, this study provides clinical insight and suggests direction for future service improvement for patients with stroke and TIA.

### **References**

1. Walton L, De Mendonca J, Preston E, et al. Transient Ischemic Attack and Mild Stroke participant perspectives on barriers and enablers to participation in cardiovascular rehabilitation: A qualitative study guided by the Theoretical Domains Framework and Capability, Opportunity, Motivation and Behaviour Model. *Journal of Cardiovascular Nursing* 2024;00: 00.
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3. Lawal, M (2016) Implementation of diabetes education policy: prospects and barriers. Germany: Lambert Academic Publishing.
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5. Department of Health (2013) Cardiovascular Disease Outcomes Strategy: Improving outcomes for people with or at risk of cardiovascular disease. London: DH.