INPLASY

INPLASY202570020 doi: 10.37766/inplasy2025.7.0020 Received: 5 July 2025

Published: 5 July 2025

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A Systematic Review on Rapid Transit or Fixed Route Capacity Bus Integration with Paratransit or Feeder Services in the Global South

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ADMINISTRATIVE INFORMATION

Support - Regional Transport Research and Education Centre Kumasi (TRECK).

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202570020

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 5 July 2025 and was last updated on 5 July 2025.

INTRODUCTION

R eview question / Objective To identify existing models on integrating Bus Rapid Transit with paratransit or feeder services.

Rationale As the world evolves, the Bus Rapid Transit (BRT) system has transformed into a contemporary solution to ease traffic congestion, driven by population growth and increased vehicle usage. This evolution has created mobility challenges in developing cities.

Condition being studied Integration of Bus Rapid Transit.

METHODS

Search strategy PICO Framework.

Participant or population Bus Rapid Transit.

Intervention Integration.

Comparator Paratransit or Feeder services.

Study designs to be included The review included different indicators such as autonomous vehicle, ride haling, structured survey etc.

Eligibility criteria

Articles published from 2000 to 2024 All articles with topics relating to Bus Rapid Transit Integration All articles with topics relating to strategies of integration Peer-reviewed articles English Language.

Information sources

ScienceDirect Taylor and Francis Transportation Research International Documentation (TRID). **Main outcome(s)** The key themes in the quality of service in public transportation have transitioned from efficiency to user satisfaction and perceptions. However, there is limited literature on public transport integration in the global south, especially in Africa. The review aimed to identify existing models on integrating BRT with informal public transport.

Quality assessment / Risk of bias analysis Two reviewers independently carried out the screening process to ensure a reliable and transparent selection. These reviewers worked separately to minimize potential biases and confirm that the final selection process was appropriate for the synthesized studies on integrating BRT with paratransit or feeder services.

Strategy of data synthesis The reviewers screen the articles by reading the title, abstract, and the full text.

Subgroup analysis The review is on qualitative synthesis.

Sensitivity analysis The review combine previous findings on paratransit or feeder services integration with BRT.

Language restriction Articles written in English language were included.

Country(ies) involved Ghana.

Keywords Bus Rapid Transit OR fixed route capacity bus AND Integration AND Paratransit OR Feeder Services.

Contributions of each author

Author 1 - Odunayo Oladunjoye - Download the articles, screening of the articles, drafted the manuscript.

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Author 2 - Charles Adams - Contributed to the development of the selection criteria, review and edit.

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