



# Methodological Assessment of Quasi-Experimental Designs in Rural Clinics Systems within Ethiopia: An Evaluation of Clinical Outcomes Contextualized Within an African Forensic Medicine Framework

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## Abstract

Rural clinics in Ethiopia face challenges in delivering consistent quality healthcare due to resource limitations. A systematic review was conducted using electronic databases (PubMed, Scopus) for relevant studies published between and . Studies were included if they employed quasi-experimental designs to evaluate clinical outcomes in rural clinics within Ethiopia, with methodological quality assessed using a predefined checklist. Analysis revealed that nearly half of the reviewed studies used matched-pair design for their quasi-experiments, reflecting a common approach but also indicating potential risks related to selection bias. The review highlights the need for standardization in reporting and methodological rigor across rural clinic evaluations in Ethiopia. Future research should prioritise transparent reporting of methodologies and robust statistical analyses to enhance comparability and reliability of results. Quasi-experimental design, Rural clinics, Clinical outcomes, Methodological assessment, Ethiopia Treatment effect was estimated with  $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^{-1} p X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** African, Ethiopia, Quasi-experimental, Design, Methodology, Clinical, Outcomes

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