



# Methodological Assessment of Quasi-Experimental Designs in South African District Hospitals: A Scoping Review

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## Abstract

Quasi-experimental designs are commonly used in healthcare research to evaluate interventions without random assignment but with controlled conditions. In South African district hospitals, these designs have been employed to assess clinical outcomes following various health programmes. A comprehensive search strategy was conducted using databases such as PubMed, Embase, and Cochrane Library. Eligible studies were identified based on predefined inclusion criteria and assessed for methodological quality using the Newcastle-Ottawa Scale (NOS). The review identified a total of 25 quasi-experimental designs applied in South African district hospitals over the past decade, primarily targeting interventions related to maternal health and child nutrition. Analysis revealed significant variability in study design quality. Findings suggest that while these studies have provided valuable insights into healthcare outcomes, there is room for improvement in methodological consistency and transparency. Future research should prioritise standardisation of quasi-experimental designs to enhance comparability and generalizability across different contexts. Increased reporting of study methods will also improve the reliability of findings. Treatment effect was estimated with  $\text{logit}(\pi) = \beta_0 + \beta_1 X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *Sub-Saharan Africa, quasi-experimental design, healthcare evaluation, clinical effectiveness, intervention studies, non-randomized trials, outcome measurement*

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