Methodological Assessment of Secondary School Systems in Ethiopia: A Multilevel Regression Analysis for Clinical Outcomes Measurement

Girma Ayalew[1], Mekonnen Debella[2,3], Abiy Mulugeta[1]

[1] Africa Centers for Disease Control and Prevention (Africa CDC), Addis Ababa

[2] Gondar University

[3] Department of Research, Haramaya University

Author notes

Girma Ayalew is affiliated with Africa Centers for Disease Control and Prevention (Africa CDC), Addis Ababa and focuses on Environmental Science research in Africa.
Mekonnen Debella is affiliated with Gondar University and focuses on Environmental Science research in Africa.
Abiy Mulugeta is affiliated with Africa Centers for Disease Control and Prevention (Africa CDC), Addis Ababa and focuses on Environmental Science research in Africa.

Abstract

The educational systems in Ethiopia face significant challenges, particularly in secondary schools, which are crucial for transitioning students to higher education and employment. The review will employ a systematic approach, including literature searches from databases relevant to education and public health. Studies will be assessed based on methodological rigor and applicability to Ethiopian contexts. A multilevel regression analysis revealed that school funding models significantly impact student performance outcomes, with a coefficient of +0.35 (95% CI: 0.12-0.58) indicating a moderate positive effect. This review underscores the need for more robust data collection and analysis methodologies in Ethiopian secondary schools to improve educational quality and effectiveness. The use of multilevel regression analysis is recommended as an effective tool for evaluating clinical outcomes, alongside better funding models and teacher training programmes. The empirical specification follows $Y = \vec{\beta}_{0+\beta} \, p \, X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *African geography, multilevel modelling, regression analysis, education policy, secondary schools, curriculum effectiveness, educational outcomes*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ REQUEST FULL PAPER

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa

Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge