Assessing the Impact of a Comprehensive Care Model on Reducing A1c Levels Compared to Primary Care Alone: A Comprehensive Study

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Introduction: Diabetes significantly challenges the Rio Grande Valley (RGV), especially in low-income rural areas where prevalence and mortality rates are higher than in urban regions. Limited access to routine healthcare and specialists exacerbates these issues, delaying medical attention and reducing diagnostic testing and management adherence. Early diagnosis and lifestyle modification interventions show promise, but objective evaluation of these models by local organizations in the RGV. Further analysis is needed to assess their effectiveness in reducing diabetes prevalence and improving health outcomes in the RGV.

Methods: This retrospective study aims to evaluate the Comprehensive Care Model (CCM) on Improved Health Outcomes (IHO) in diabetes patients at three Area Health Education Clinic (AHEC) locations in the RGV. Patients will be categorized by A1c levels (≥6.5%) over a year and reassessed after at least three months. Stratification will be based on the number of interventions received, with changes in A1c levels serving as the metric for IHO assessment.

Hypothesis: The hypothesized results suggest a positive correlation between the number of interventions and changes in A1c levels, indicating improved health outcomes. Greater A1c changes are expected in patients receiving primary health services, diabetes education, and additional support like community health workers and lifestyle education.

Conclusion: In conclusion, diabetes severely impacts the Rio Grande Valley (RGV), with higher prevalence and mortality rates than urban areas, worsened by limited healthcare access in rural, low-income regions. Implementing the Comprehensive Care Model (CCM) in Area Health Education Clinics (AHECs) addresses these challenges by integrating interventions targeting A1c levels, BMI, and emergency visits.

Key words:

Diabetes, Rio Grande Valley (RGV), Low-income rural areas, Healthcare access, Diagnostic testing, Lifestyle modification, Comprehensive Care Model (CCM), A1c levels, Interventions, Health outcomes