Evaluating the Impact of a Collaborative Care Model in Diabetes Management in a Primary Healthcare Setting in Qatar Using Real-World Data

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Background
• Diabetes is a chronic, debilitating illness of an escalating prevalence worldwide.1
• The current prevalence of diabetes in Qatar is 15.5%, which is projected to increase to 29.7% by 2035.2
• Diabetes management is still challenging despite healthcare advancement, warranting the need for a comprehensive Collaborative Care Model (CCM).3
• CCM assures the integration of knowledge, skills, values, and attitudes that aid team working within and among professions, and with patients and their families to improve health outcomes.4
• Therefore, we aim to evaluate the impact of CCM on diabetes-related outcomes at a primary healthcare setting in Qatar.

Objectives
I. To characterize the clinical profile including diabetes-related comorbidities and complications of patients with DM attending an ambulatory diabetes care clinic at a primary healthcare center.
II. To evaluate the impact of CCM on glycemic control (glycated hemoglobin A1c (HbA1c), fasting plasma glucose (FBG), and random blood glucose (RBG)) among these patients.
III. To evaluate the impact of the CCM on other disease-related outcomes comprising lipid profile, BP, and body mass index (BMI).

Methods
• Study design: Retrospective observational study.
• Outcome measures: HbA1c, FBG, BMI, blood pressure (BP), and lipid profile.
• Statistical analysis: Descriptive and inferential statistics.

Results

Figure 1. Glycemic control parameters

Figure 2. Final mean HbA1c distribution at 17 months

Figure 3. Lipid profile parameters

Figure 4. Anthropometric parameters

Results (Cont’d)
• There were no statistically significant differences at baseline or at 17 months in the medication regimens and types of medications.
• The most commonly prescribed medication regimen was oral monotherapy.
• More patients in the intervention group received metformin than the control group at baseline and at 17 months.

Limitations
• There is a high heterogeneity among the primary studies as a result of the variations in original studies setting, number of patients, type of pharmacist’s interventions, and outcomes measures.
• Each systematic review stratified the primary studies differently (based on study setting, disease, outcome, or not stratified).

Conclusion
• CCM provision improved HbA1c, RBG, LDL-C, TC, weight, and BMI significantly in patients with diabetes within 17 month in a primary healthcare setting.
• Future studies should determine the long-term impact of CCM in this setting.
• The findings highlight the positive impact of the integration of different healthcare professionals into the healthcare team in primary care settings on tangible health outcomes.

References