Evaluating Integrated NCD-MH Primary Care Services for Type II Diabetes: A Retrospective Quantitative Study in Conflict-Affected Settings in Iraq and Nigeria

PRESENTER:
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BACKGROUND:

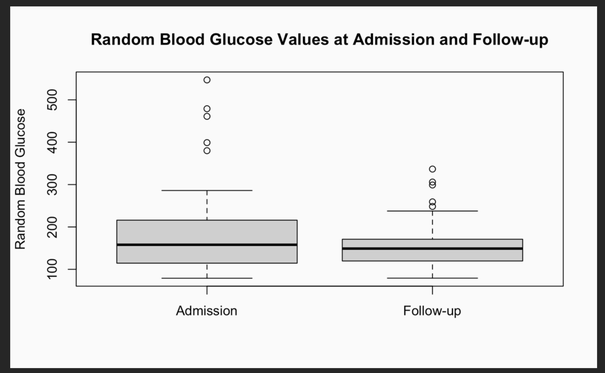
- **Problem**: Type 2 Diabetes Mellitus (T2DM) with 9% prevalence globally,
  - 81% occurring in low- and middle-income countries
- **Burden of disease** particularly high in conflict-affected settings where access to adequate care is lacking.
- **Rationale**: Non-communicable diseases (NCDs) and mental health (MH) conditions are related:
  - Shared risk factors
  - High comorbidity
  - Similar treatment process
- **Addressing this gap** with an integrated NCD-MH intervention implemented in primary care centers in Iraq (1) and Nigeria (2)
- **Model of delivery**: NCD-MH screening, lifestyle and MH counseling, and medication
- **Study objective**: Evaluating whether T2DM patients enrolled in the intervention show improvements in clinical outcomes (baseline vs. last follow-up)

METHODS

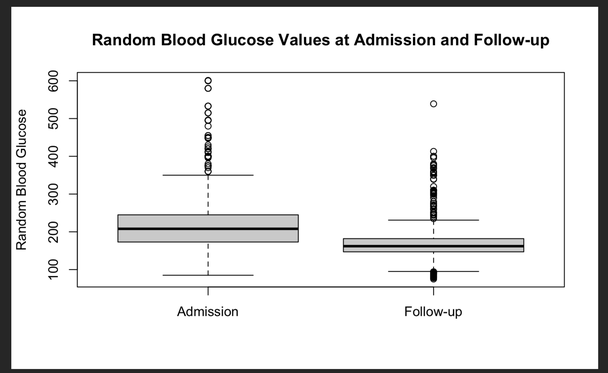
- **Retrospective quantitative study** using routine patient data in Iraq and Nigeria
- **Data collection** from
  - Jan 2021 – Oct 2023 in Iraq
  - Nov 2022 – Oct 2023 in Nigeria
- **Inclusion criteria**: Adult T2DM patients enrolled for at least 3 months in the NCD-MH intervention
- **Measures**:
  - Socio-demographics
  - Duration of enrollment in intervention
  - Attrition rate
  - Primary outcome: control in random blood glucose (RGB) (Controlled RGB ≤ 200 mg/dL)
- **Mc Nemar's test** assessing proportions with improved and non-improved clinical outcomes between baseline and follow-up

Integrated NCD-MH care services on primary care level have potential to **improve Type 2 Diabetes Outcomes** in volatile settings.

Diabetes Outcomes Nigeria



Diabetes Outcomes Iraq



RESULTS

	Nigeria	Iraq
Socio-Demographics	73% female; 81% unemployed; moderate/high health behavior	75% female; 77% unemployed; moderate/high health behavior
Attrition rate	~38%	~25%
T2DM Prevalence in sample	20% of enrolled patients (N=43)	37% of patients enrolled (N=999)
Comorbities in sample	8% with hypertension 0.7% with MH	12% with hypertension NA with MH
Primary Outcomes	Mean RBG decline of –33.5 mg/dL; non-significant ($p = .182$; OR = 3.5, 95% CI: 0.73–16.9)	Mean RBG decline of –78.2 mg/dL; significant improvement ($p < .001$; OR = 12.9, 95% CI: 7.3–22.5)

DISCUSSION

- The NCD-MH **intervention showed effectiveness** in Tel afar, Iraq, significantly improving the RGB levels of patients with T2DM
- In Konduga, Nigeria, a positive trend was observed, effectiveness could not be proven statistically – likely due to a small sample size (N = 43)
- **Nigeria and Iraq contexts differ** in the basic prevalence of T2DM (7% vs. 13% respectively), potentially influencing divergent outcomes per context
- Overall, this study provides evidence for the effectiveness of integrated NCD-MH services on primary care level in improving patients' T2DM outcomes.
- **Study limitations** include:
  - relatively high loss to follow-up,
  - use of RBG rather than more reliable effectiveness measure (e.g., HbA1c)
- **Future research directions**:
  - Explore context-specific needs and patient experiences to improve services in each setting.
  - Apply more robust measures for clinical outcomes to more reliably monitor clinical outcomes.

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