

PHYSICAL ACTIVITY AND DIET IN THE MANAGEMENT OF INDIVIDUALS WITH TYPE 2 DIABETES MELLITUS: A REVIEW OF INTERVENTIONS AND POLICIES IN GHANA, SUB-SAHARAN AFRICAN AND LOWER-MIDDLE INCOME COUNTRIES

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INTRODUCTION

Background

Type 2 Diabetes Mellitus (T2DM) is increasing in prevalence, with over 3 in 4 adults living with diabetes found in low- and middle-income countries¹. Lifestyle changes can help improve health outcomes^{2,3}, yet physical activity and diet in the management of T2DM patients in Ghana appears to be underutilised.

Objective

To examine physical activity and dietary interventions and policies in the management of people with T2DM in Ghana, in Sub-Saharan Africa (SSA) and lower-middle income countries (LLMIC)* to make recommendations for improving health outcomes in Ghanaian patients.

*Sub-Saharan African and lower-middle income countries were included as these have comparable health system structures, resources and contexts with the Ghanaian health system



Figure 1: Map of Ghana

Conceptual Framework

An adapted innovative care for chronic conditions (ICCC) framework⁴ was used to analyse findings under the micro, meso and macro levels of a health system. The adaptation highlighted sociocultural and socioeconomic factors in the management of T2DM (Figure 2)

METHODS

Data Collection and Analysis

- PubMed, Embase and the Vrije Universiteit (VU) library were searched for interventions in Ghana, SSA and LLMIC where physical activity or diet was used on a patient-, community- or population-based level as an intervention for management of the disease in individuals. Grey literature (from national and international health system websites) was also searched and included. Search was limited to literature before 2019.

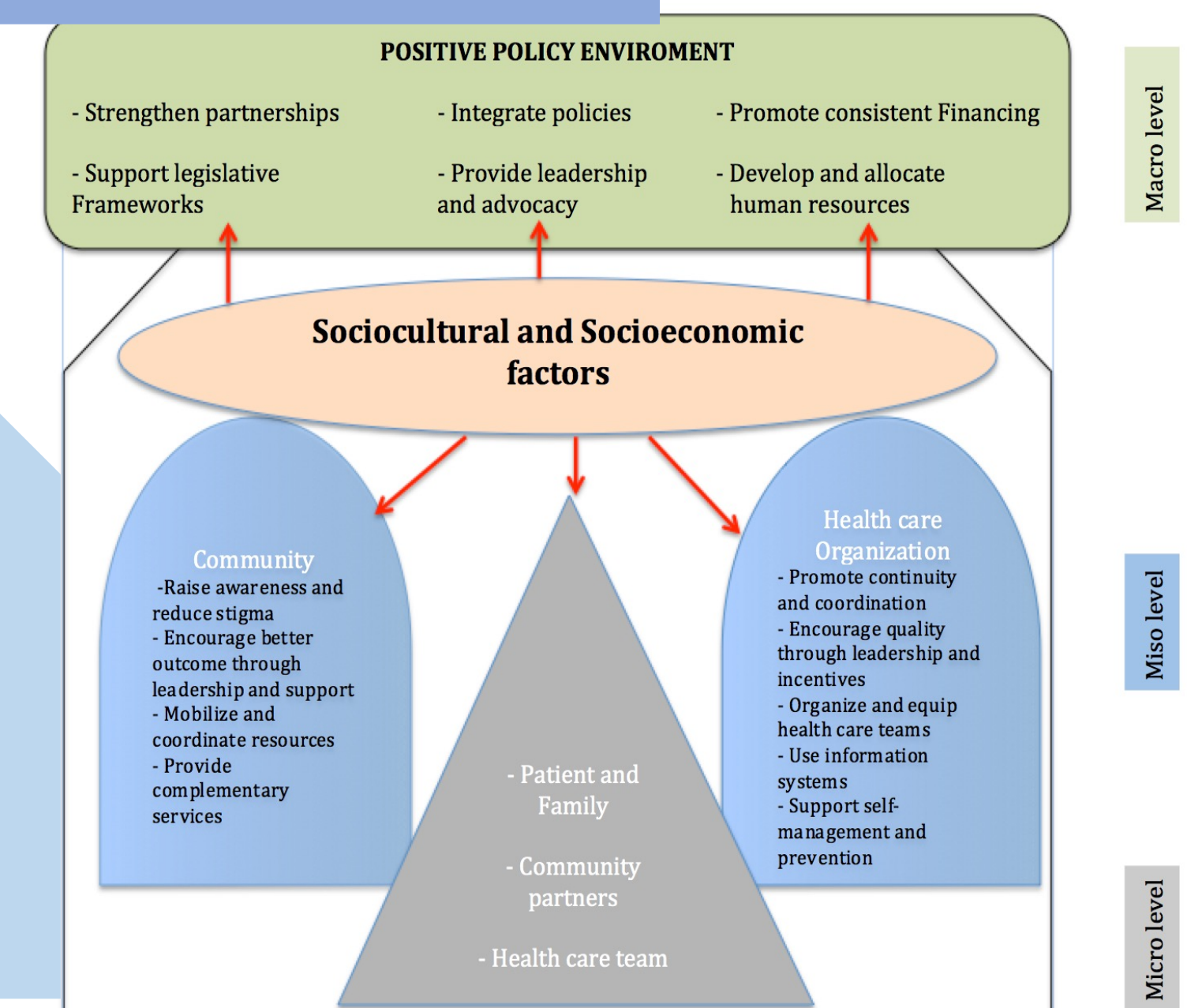


Figure 2: Adapted innovative care for chronic conditions (ICCC) framework

RESULTS

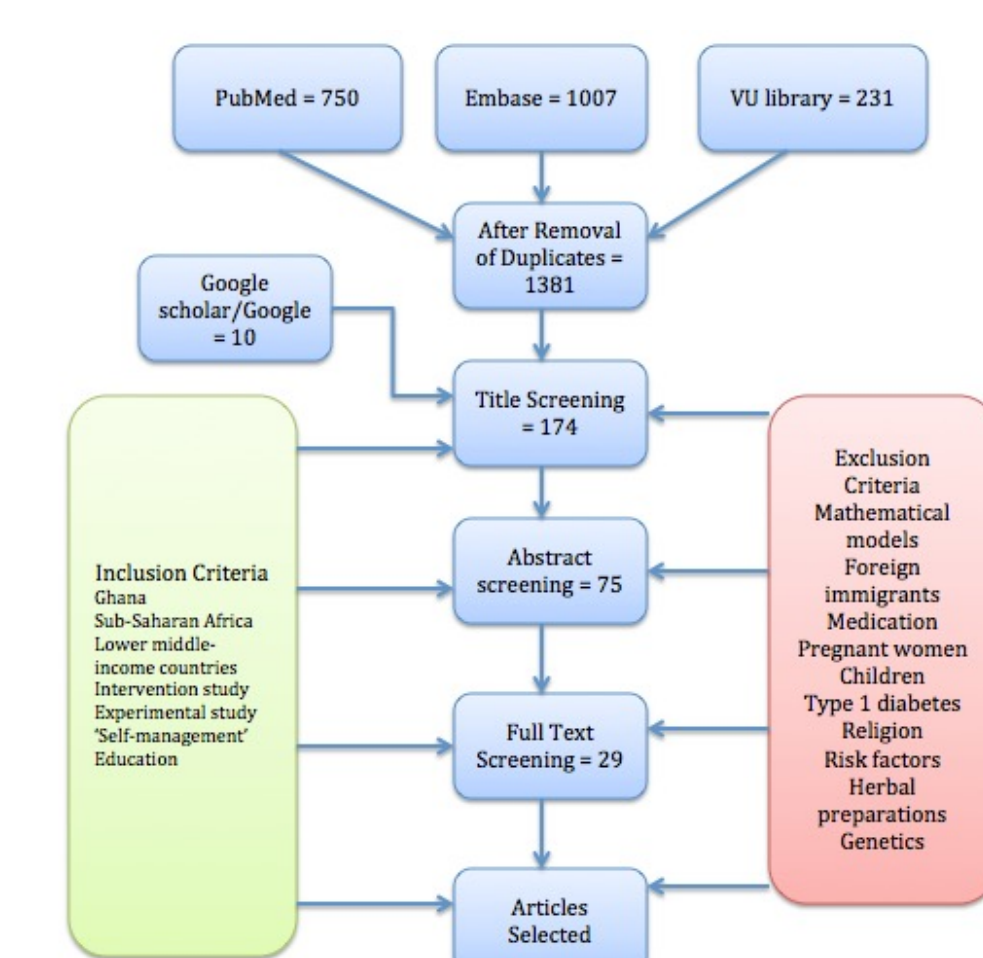


Figure 3: Flowchart of Selection Criteria

Results

- 29 intervention studies were found for ten countries (Figure 3)
- Interventions in Ghana are few (Figure 4), but there is focus on development of human resource in health. There is less focus on implementation of policy recommendations or provision of context-specific guidelines for physical activity and diet.
- In SSA and lower middle-income countries, education interventions, community-based and culturally appropriate interventions appear to improve health outcomes. Policies exist in most countries, but many policies appear to lack implementation, and few provide financing options, legislation and inter-sectorial partnerships.

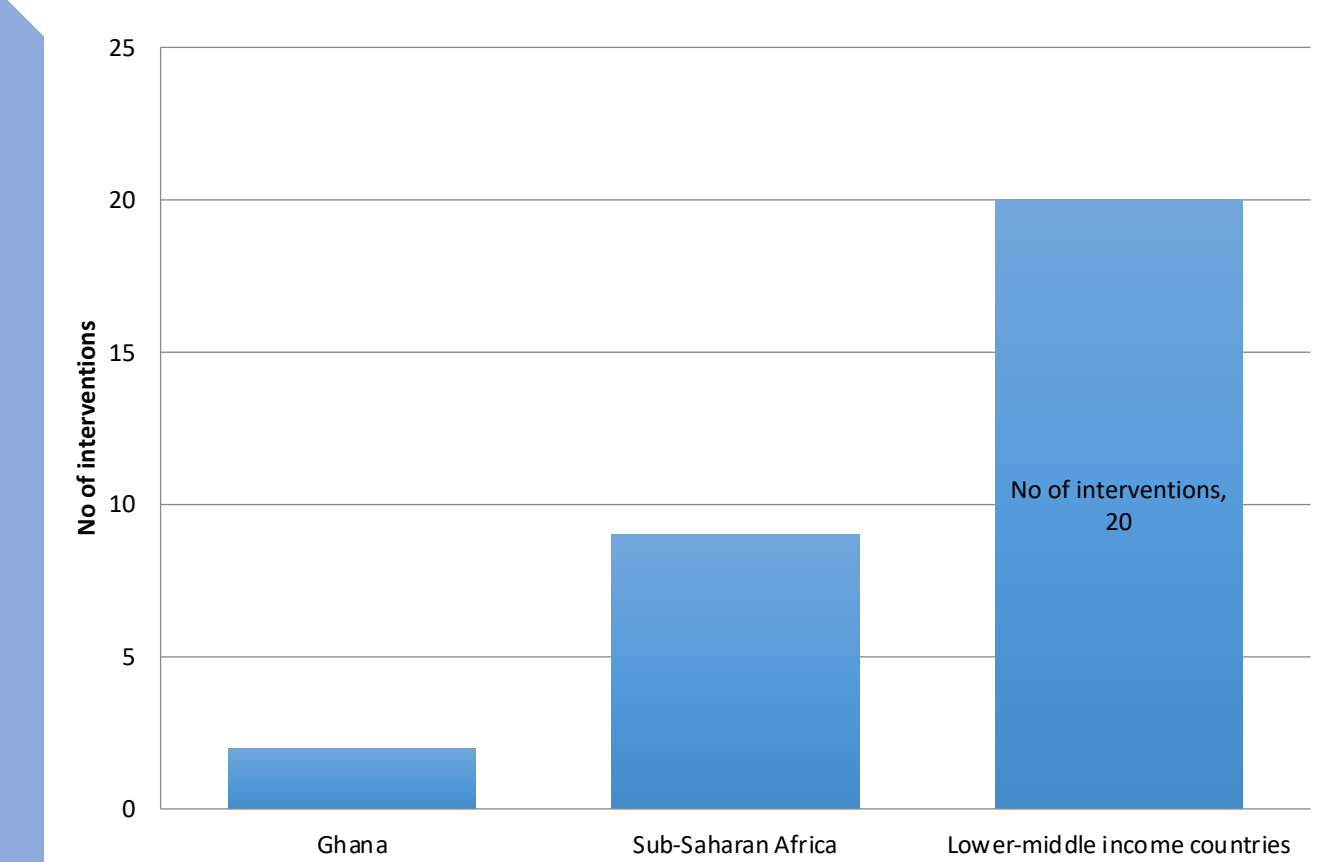


Figure 4: Graph of Number of Interventions per Location of Study

Lessons Learned

Recommendations

- Effective interventions and policies exist in SSA countries and LMICs, which can be applied to the Ghanaian context
- Ghana's Ministry of Health, and other custodians of the health system, must initiate context specific dietary and physical activity interventions, while adopting culturally appropriate policies which prioritise implementation enforcement.

Acknowledgement

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