

Integrating Cultural and Psychosocial Insights in Diabetes Prevention: A Systematic Review and Meta-Analysis of Intervention Programs Among the Arab Population

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INTRODUCTION

Certain population subgroups are at higher risk of acquiring diabetes, including minority groups such as the Arab community in Israel. However, Israeli Arabs do not always receive adequate diabetes care due to barriers such as linguistic differences and religious, health, and illness beliefs.

OBJECTIVES

To compare goals, methods and success rates of diabetes prevention and intervention programs in Arab communities

METHODOLOGY

JB1 methodology for scoping reviews

Hand and electronic databases:

- Scopus
- Pubmed
- Web of Science
- CINAHL
- PsychINFO
- Proquest
- Al Manhal
- Haifa University Hebrew database

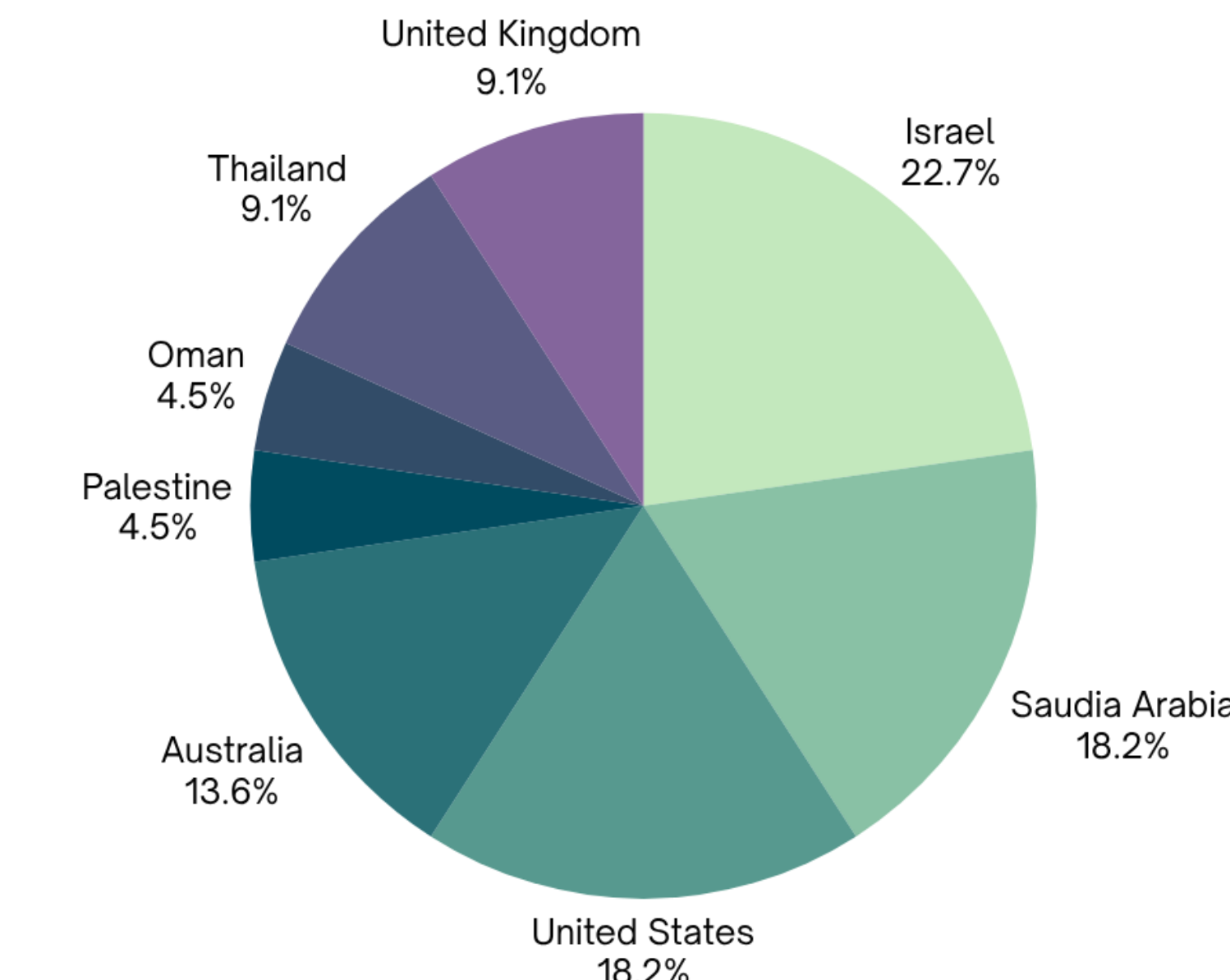
Search strategy: Keywords and indexed terms, unlimited by language or date

- Diabetes
- Interventions
- Arabs

Exclusion criteria:

- People under age 18
- Case reports
- Review studies

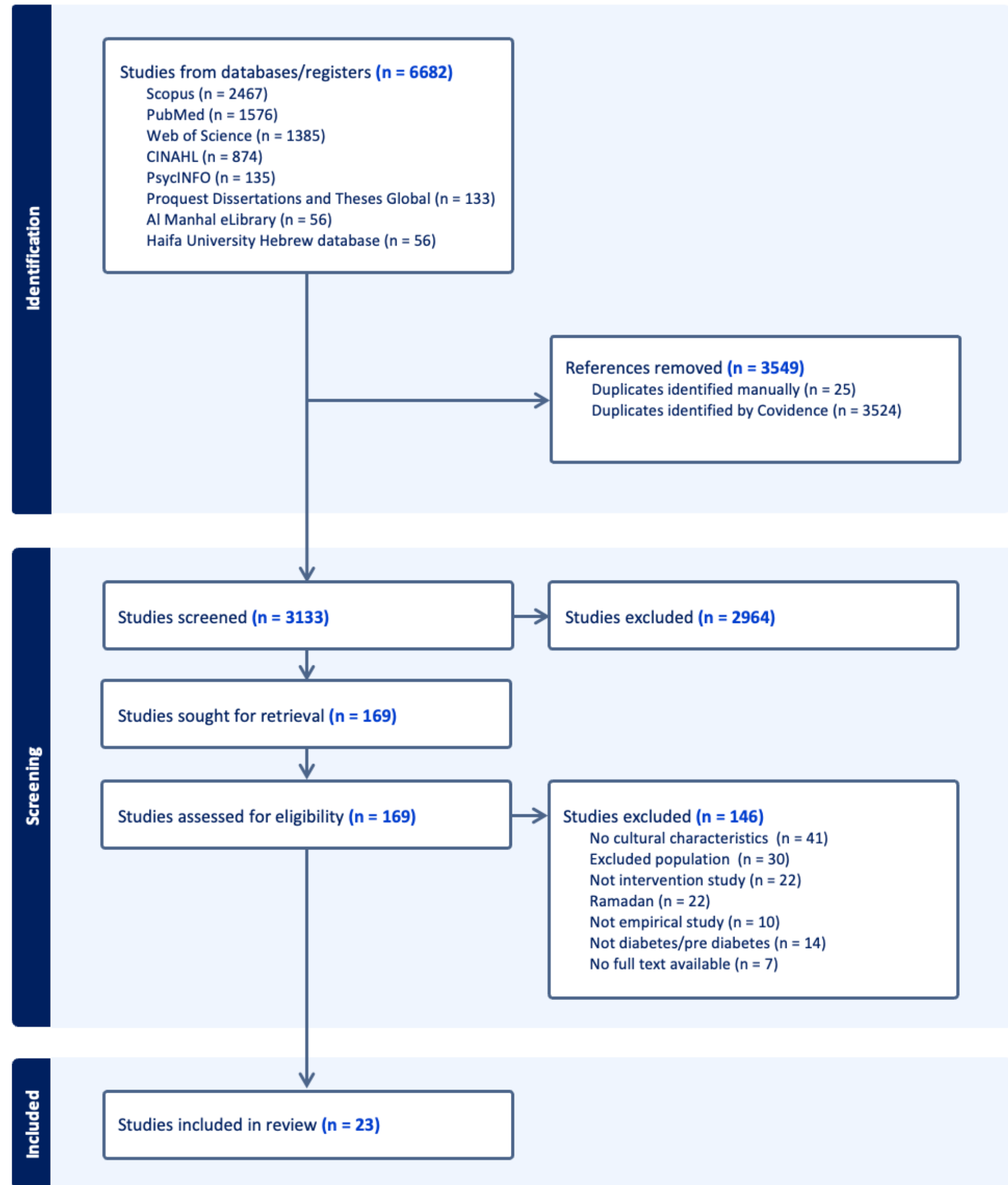
Screening and extraction: Covidence systematic review manager (Veritas Health Innovation), using a template designed specifically for this review.



Findings from the review are based on 23 articles:
13 quantitative articles and 10 qualitative articles.

Results divided into 4 categories:

1. People with diabetes
2. Professionals
3. Community key figures
4. Policy makers - Ministry of Health.



RESULTS/FINDINGS

Main findings

- Culturally tailored interventions significantly improved HbA1c levels (between-group effect: $d = -0.70$, $p < .001$; within-group effect: $d = -0.32$, $p = .004$). Knowledge scores also improved (between-group: $d = 1.36$, $p < .001$; within-group: $d = 1.01$, $p < .001$).
- Effective programs incorporated religious considerations, Arabic-language materials, and community-based delivery. Healthcare provider involvement and peer-supported models enhanced engagement and behavioral change.

People with diabetes

Prevention programs

- Effective programs prioritize cultural sensitivity, including language adaptation
- Family support is an integral part of diabetes prevention
- Peer-led training within the community is crucial
- Small group meetings are emphasized in effective programs
- Training manuals designed for patient groups can be tailored for the Arab population in Israel.

Intervention programs

- Diverse intervention programs for Arab diabetic patients, ranging from short sessions to extended courses, significantly improve health metrics and quality of life, emphasizing the importance of adherence to guidelines
- Programs should include comprehensive psychosocial education, with activities, counseling, and instructions in the native language, ensuring every individual attends at least one awareness session.

Healthcare professionals

Offer culturally tailored education and counseling on diabetes management to Arab patients, covering symptoms, treatment, and comprehensive self-care, led by culturally similar professionals.

Community key figures

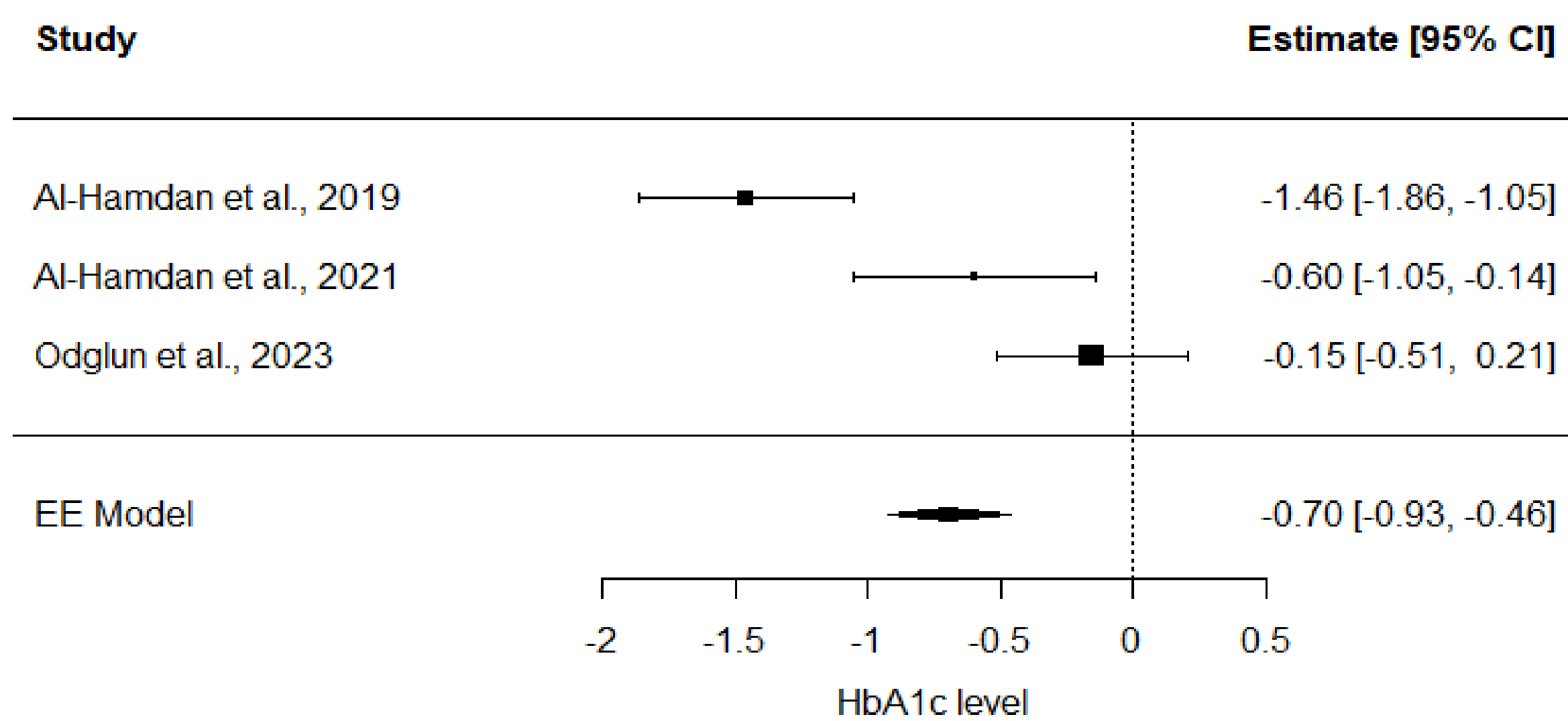
Findings

- Diabetes education in Arab societies should incorporate cultural interventions
- Some countries in the Arab world view weight and fat as signs of abundance
- Diabetes education programs must address this cultural perception by directing community key figures to emphasize the importance of health maintenance religiously and medically.

Recommendations

- Utilize community key figures to raise awareness about diabetes.
- Adapt guidelines culturally and linguistically, considering cultural and religious beliefs, linguistic needs
- Provide simplified guidelines tailored to the health literacy level of patients and their families.

Forest plot of post-intervention differences between the intervention and control groups in HbA1c values



Ministry of Health policy makers

Recommendations

- Diabetes education should be a cornerstone in the treatment of diabetic patients in Arab society, targeting both patients and their families
- Education can occur in various settings such as workplaces, community institutions, and health services.
- Increasing self-management of the disease should be a goal of all intervention programs, as it is crucial for controlling blood sugar levels.
- Gender adjustments should be made in education programs, considering factors like a woman's role at home with access to food.
- The Ministry of Health should conduct culturally tailored diabetes specialization training for nurses from the Arab society.
- Specialized training should address clinical, social, cultural/linguistic, and mental aspects of diabetes treatment
- Nurses are suitable candidates for this training due to their accessibility and continuous connection with patients in the community.

CONCLUSION

This study provides insights for reducing diabetes-related health inequalities in the Israeli Arab community. Findings highlight unique cultural factors that promote health. Culturally tailored interventions are effective in improving clinical outcomes and self-management behaviors. Programs aligned with cultural norms, beliefs, and language show greater impact. Expanding community-based, provider-supported interventions may reduce health disparities and enhance diabetes care in underserved populations.