



Health Literacy of Caregivers of Children with Type 1 Diabetes: a Pilot Study on Impact on Glycemic Control in an Arabic-speaking Population

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Introduction

- Health literacy has been linked to poorer diabetes control and outcomes.
- Caregivers with poor health literacy may fail to comprehend various elements of diabetes education leading to poor glycemic control of their children.
- No studies to date had investigated the link between caregivers' health literacy and their children's glycemic control in an Arabic-speaking population.

Objective and hypothesis

- Our aim is to study the link between caregivers' health literacy level and their children's glycaemic control.
- We hypothesise that children of caregivers with poor health literacy will have poorer glycaemic control.

Methods

- This is a cross-sectional study.
- A pilot of caregivers of children with type 1 diabetes was selected in a Diabetes centre in Kuwait.
- Health literacy was assessed through administering the Arabic version of the Newest Vital Sign (NVS) tool Figure.1.
- The NVS tool is a screening tool for health literacy, based on a nutrition label from an ice cream container. Patients are given the label and then asked 6 questions about it.
- Score of 0-1 suggests high likelihood (50% or more) of limited literacy, 2-3 indicates the possibility of limited literacy, and 4-6 almost always indicates adequate literacy.
- The child's glycaemic control was measured through the level of HbA1C within 3 months of the test administration.
- Caregivers with Arabic as their first language and children with more than 1 year history of T1D were recruited.
- Children with co-morbid conditions or medications affecting HbA1C were excluded (e.g malabsorption syndromes, Hemoglobinopathies, and B-blockers). Caregivers with visual or learning difficulties were excluded.

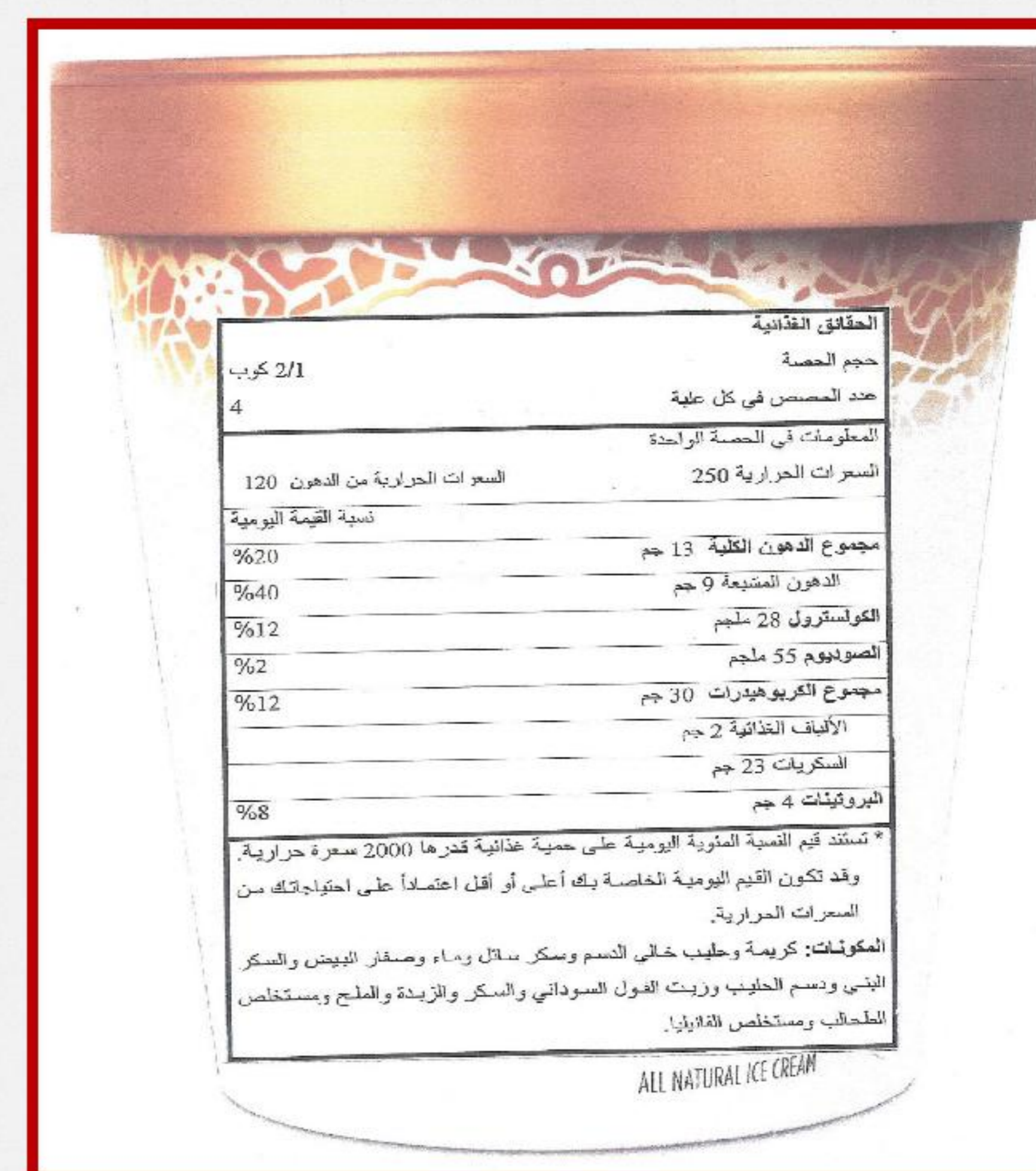


Figure.1

Results

- Twenty caregivers were recruited.
- Table 1 describes baseline characteristics of the recruited caregivers.
- After controlling for caregiver's gender, age, child's age and duration of diabetes ; children of caregivers with high likelihood of limited health literacy had poorer glycaemic control compared to those without (HbA1C 9.3, and 8.3 respectively, $P = 0.018$)

Variable	Value
Female, n (%)	14 (70.0%)
Caregivers age years, median (IQR)	37.0 (I35.5, 41.5)
Child age years, median (IQR)	8.9 (6.2, 11.1)
Child BMI, median (IQR)	0.6 (-0.5, 1.7)
Child HbA1C, median (IQR)	8.6 (7.8, 9.2)

Table 1

Conclusion

- This study highlights the possible link between caregivers' health literacy and their children's glycaemic control in Arabic-speaking populations.
- This should be confirmed in future studies with larger samples.



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