

IMPACT OF NUTRITIONAL COUNSELING IN LIBRAS ON WOUND PREVENTION IN A DEAF DIABETIC PATIENT: CASE REPORT



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Entre nós

INTRODUCTION: Type 2 diabetes mellitus, when poorly controlled, increases the risk of complications such as lower limb ulcers. Adherence to nutritional treatment is essential for glycemic control and wound prevention. However, deaf patients face barriers in accessing healthcare, especially due to the lack of effective communication with professionals unfamiliar with Brazilian Sign Language (LIBRAS). This report describes the positive impact of nutritional counseling in LIBRAS on wound prevention in a deaf patient.

OBJECTIVE: To describe the impact of nutritional care conducted in Brazilian Sign Language (LIBRAS) on wound prevention in a deaf patient with type 2 diabetes mellitus.

METHODS:

- 1. **Patient profile**
 - Female, 73 years.
 - Type 2 diabetes mellitus, on Xigduo®, Glifage XR 500 mg and Gliclazide 60 mg.
 - Deaf; LIBRAS user, writes in Portuguese but mixes Portuguese and sign-language syntax.
 - Prolonged fasting, large meal volumes, frequent “can / can’t” doubts.
 - **First consultation with a dietitian.**

- 2. **Intervention context**

In March 2024, after an endocrinologist evaluated the patient's tests, the patient had no existing wounds but was at high risk for developing them. The doctor continued the medication treatment and referred her for nutritional care.

 - **Nutritional approach**

- **Teleconsultation (25 Apr 2024):** Anamnesis in LIBRAS / adapted to the main goal (glycemic control), goal-setting and delivery of visual materials. Individual meal plan with realistic food swaps, meal-time distribution and gradual fiber increase (legumes, fruits, vegetables, whole grains).
- **Practical supermarket session (20 June 2024):** Aisle-by-aisle tour, label reading and product-choice demonstration. Label comparison, hidden-sugar detection and healthier option selection.
- **Remote follow-up (3 months):** Weekly exchanges of text messages and photos for support and adjustments.

- 3. **Accessible communication strategies in LIBRAS**
 - **Key signs:** “sugar,” “blood,” “diabetes,” “eat,” “help/hinder,” “good/better,” “can/can’t,” “question,” “understand.”
 - **Visual aids:** Portion photos, illustrated list of healthy options, illustrated substitution list, simplified glycemic-index table highlighting preferred foods, illustrated fiber sources.
 - **Comprehension checks:** Repetition, clarification questions, emphatic facial/body expressions.
 - **No interpreter was required;** the dietitian’s intermediate LIBRAS, the patient’s limited oralization and abundant visual resources ensured mutual understanding.

- 4. **Therapeutic bond and monitoring**
 - Active involvement of the patient and her husband (also deaf) in food and meal decisions.
 - Continuous feedback via messages and visual notes.
 - Positive reinforcement for each achievement (weight loss, glycemic targets, bowel regularity).



RESULTS

DATE	WEIGHT	HbA1c	AVG. GLUCOSE	FASTING GLUCOSE
08 Mar 2024	67 kg	10.6%	258 mg/dL	311 mg/dL
29 May 2024	63 kg	-	-	-
10 Jan 2025	63 kg	5.8%	120 mg/dL	119 mg/dl

There was a weight loss of 4 kg, contributing to improved insulin sensitivity and response to drug treatment, which achieved the desired effect, without requiring any pharmacological adjustment during the period applied.

WEIGHT	HbA1c	ESTIMATED AVG. GLUCOSE	FASTING GLUCOSE	MEDICATION
↓ 4 kg (↓ 6%)	↓4.8 - within ADA target	Normalized	Normalized	No adjustment needed

The patient expressed joy, citing a clearer understanding of the impact of the diet. It generated confidence in reading labels, selecting products and making daily food choices. Accessible communication in LIBRAS and visual support were essential for the therapeutic bond and better adherence, metabolic success and prevention of complications. No skin lesions or diabetic foot ulcers developed during the study period. Normal bowel habits; stools classified as Bristol types 3-4, eliminating previous discomfort.

CONCLUSION

The case demonstrated that accessible nutritional care in LIBRAS played a fundamental role in metabolic control and in the prevention of complications in a deaf patient with type 2 diabetes mellitus. Effective communication promoted adherence to treatment, understanding of guidelines, significant clinical improvement, strengthening of patient autonomy and their connection with health care. The importance of linguistic accessibility is highlighted as a determining factor for humanized, safe and effective nutritional care.

I have no conflict of interest.