

Reasons for Insulin Refusal among Patients with Uncontrolled Type 2 Diabetes and Impact of Patient-Centered Education on Insulin Acceptance

*Hasan MR¹, Hannan MA², Alam MF³, Quraishi M⁴

¹Md. Rakibul Hasan, Associate professor, Department of Endocrinology, Medical college for women and Hospital, Dhaka, Bangladesh;

²Md. Abdul Hannan, Assistant professor, Department of Endocrinology, Sherpur District Sadar Hospital, Sherpur, Bangladesh;

³Mohammad Fakhru Alam, Assistant professor, Department of Endocrinology, Noakhali Medical College, Noakhali, Bangladesh;

⁴Mashrura Quraishi, Associate Professor, Department of Microbiology, City Medical College, Gazipur, Bangladesh

Abstract

Background: Reasons for insulin refusal among uncontrolled type 2 diabetes (T2D) are well studied; however, the impact of patient-centered education (PCE) on insulin acceptance is still scarce in the literature.

Objectives: To see the reasons for insulin refusal among patients with uncontrolled T2D, and the impact of PCE on subsequent insulin acceptance and its related factors.

Method: This cross-sectional study was carried out from April 2024 to September 2025 in an outpatient setting of three hospitals. Patients with uncontrolled T2D who initially refused to take insulin despite having an appropriate indication according to standard guidelines were included in the study. Reasons for insulin refusal were evaluated by face-to-face interview. A group of patients was counselled by treating physicians conveniently. The impact of PCE on insulin acceptance was noted. Factors associated with insulin refusal after PCE were analysed by logistic regression.

Result: Total 202 patients included in the study [(Age: 48.4±11.5 years, mean ± SD, Female: 134(66.3%), BMI: median 25.25 (IQR: 23.2-28.1), HbA1C%: mean 10.90±1.93, Duration of DM <10 years: 148(73.3%)]. We observed that the majority of the participants refused insulin due to needle phobia (153, 75.7%). Lack of knowledge of insulin injection technique 45 (22.3%), no caregiver to inject insulin 47(23.3%) contribute a significant proportion. Total 113 patient were given PCE, out of whom 69 (61.1%) agreed to initiate insulin. Univariate analysis showed age ≥60 years, female sex, and duration of DM ≥10 years had higher odds, and graduate and living in urban areas had lower odds for insulin refusal after counseling (P <0.05). However, multivariate analysis showed that only female sex (AOR:3.97; 95% CI 1.27-12.43, p=0.018) had a predictive association.

Conclusion: PCE ensured insulin initiation in ≥60% of the study participants who initially refused insulin. Females are more likely to refuse insulin even after counselling. [*J Assoc Clin Endocrinol Diabetol Bangladesh, 2025;4(Suppl 1): S71*]

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***Presenting & Corresponding Author:** Dr. Md Rakibul Hasan, Associate professor, Endocrinology, Medical college for women and Hospital, Dhaka, Bangladesh. E-mail: dr.mrh46@gmail.com