Piloting an AI ChatBot Tool for Diabetes Nutrition Counseling

MCT2D
MICHIGAN COLLABORATIVE FOR TYPE 2 DIABETES
www.MCT2D.org

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BACKGROUND & CHALLENGE

The Michigan Collaborative for Type 2 Diabetes (MCT2D) is a **state-wide collaborative quality initiative** supported by Blue Cross Blue Shield of Michigan that aims to support participating practices in improving their type 2 diabetes (T2D) care.

T2D persists at epidemic proportions, and clinicians face **ongoing challenges with navigating the complexities of patient care** and providing effective treatments to meet patients' needs.

The Standards of Care published by the American Diabetes Association recommends that **all people with T2D receive individualized medical nutrition therapy and endorses low carbohydrate diets (LCDs)** as a viable approach in T2D management.

However, clinicians report **limited training and confidence in discussing LCDs with patients** contributing to it being an underutilized treatment approach.

RESULTS

Post Survey Results *(n=13)*	*Mean*
Agreement with the following: "The chatbot effectively simulated a real-world interaction I would have with a patient."	**4.4/5**
How useful was the chatbot in improving your skill in recommending a low carbohydrate diet to a specific patient?	**4.4/5**
How useful was the chatbot in practicing the skill of motivational interviewing?	**4.4/5**
How user-friendly did you find the overall experience with the chatbot?	**4.5/5**
Would you recommend using the chatbot to colleagues for training purposes?	*Percentage* **100%**

Suggestions

- Make the simulated patient be more difficult, less agreeable, or less knowledgeable. (n=4)
- Provide a downloadable transcript of the conversation. (n=1)

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METHODS

A conversational artificial intelligence (AI) chatbot called "LCD Patient Simulator" was developed with OpenAI for clinicians to practice counseling patients on LCDs for T2D management. The chatbot includes six simulated patients with different levels of health literacy and cultural backgrounds, and provides counseling feedback to the user (Figure 1-2).

MCT2D piloted the chatbot as a take-home self assessment tool during their Spring 2025 Low Carbohydrate Immersive Training Program. This weeklong training program was designed to provide clinicians with foundational knowledge of how to effectively counsel patients on LCDs. Participants were asked to use the chatbot to assess their understanding of LCDs and their counseling skills.

The pilot sought to establish feasibility of using a chatbot in LCD clinician education. Participants were asked to complete a post-workshop survey with questions aimed at evaluating the chatbot's usefulness as a tool for clinicians to practice their LCD counseling skills.

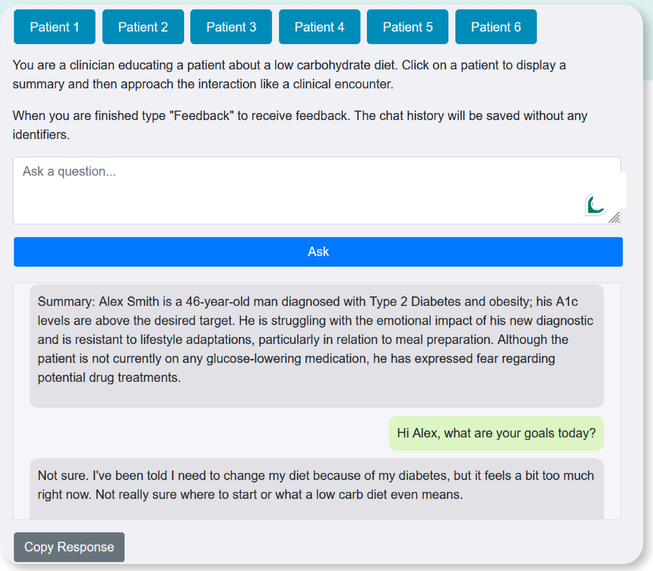

Figure 1. Example simulated patient counseling session

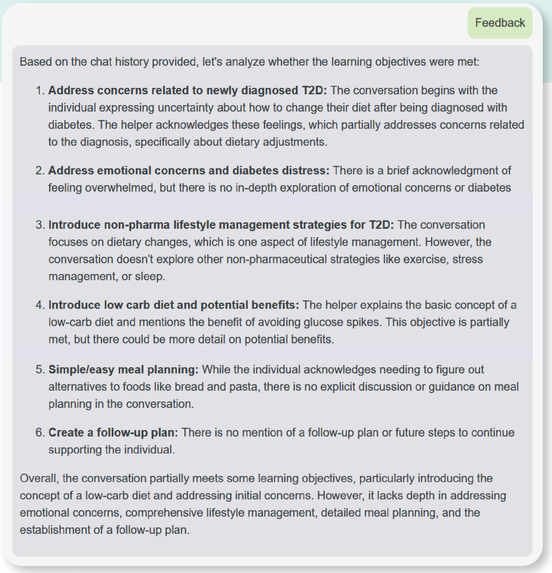

Figure 2. Example counseling feedback

CONCLUSIONS

- Clinicians had a positive experience using the AI chatbot for nutrition education.
- Clinicians preferred challenging AI patients to practice their skills.
- During the training, clinicians had the opportunity to work through multiple AI patients but most only chose to work through one.
- The chatbot will be improved and used for future iterations of the MCT2D LCD training.

Blue Cross Blue Shield of Michigan

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