

# Healthcare providers' perspectives on implementing a new screener for fear of hypoglycemia into clinical practice

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## BACKGROUND

- Fear of hypoglycemia (FoH) negatively impacts patients' quality of life, psychological well-being, and management of diabetes.<sup>1,2</sup>
- The American Diabetes Association position statement on psychosocial care suggests screening of FoH using standardized and validated tools and referring patients with FoH to a mental health provider.<sup>3,4</sup>
- Several FoH assessments exist but are not used widely in clinical practice and do not pinpoint areas of attention for additional treatment and/or diabetes education.<sup>5-9</sup>
- We have developed and validated a new FoH screener that would be short, actionable, and easy for healthcare provider (HCP) to implement in their routine clinical practice.<sup>10</sup>

## OBJECTIVE

- To understand HCPs' perspectives on the importance, relevance, and feasibility of implementing the FoH screener into clinical practice.

## KEY RESULT

- FoH screener implementation was the most common theme in focus groups.

**Table 3. Domains and Themes from Focus Group**

| Domain   | Theme                                   | Theme Description  | N   |
|--|---|--|-----|
| 1: Psychosocial needs, care, and communication           | 1. Psychosocial needs of patients       | Common psychosocial problems seen in adult patients with type 1 diabetes   | 32  |
|  | 2. Mental healthcare                    | Mental healthcare providers within the clinic/healthcare system, referring patients to mental healthcare providers, and assessing patient progress after referral to mental health | 51  |
|  | 3. Psychosocial communication           | How HCPs discuss psychosocial issues with patients, including the amount of time spent during clinic visits discussing psychosocial needs  | 60  |
| 2: FoH patterns, assessment, and management              | 4. Current method for assessing FoH     | Current method(s) HCPs use to assess FoH in patients   | 19  |
|  | 5. Patterns of FoH in clinical practice | Patterns of FoH seen in clinical practice, including which patients tend to have FoH   | 20  |
|  | 6. Health outcomes associated with FoH  | Perceived health outcomes associated with FoH  | 14  |
|  | 7. Managing FoH                         | Methods providers use to manage FoH in patients  | 30  |
| 3: Screener survey results, interest, and implementation | 8. Reaction to survey results           | General reaction to the survey results as presented in the one-page handout summary  | 13  |
|  | 9. Interest in screener                 | Overall interest in implementing the screener into their practice  | 16  |
|  | 10. Implementing screener               | Implementation barriers, suggestions, patients to prioritize, and whether screener results would influence treatment decisions   | 106 |
| 4: Resources and devices                                 | 11. Diabetes devices                    | Comments about diabetes-specific technology and devices, including their drawbacks   | 11  |
|  | 12. Clinic resources and access         | Resources in clinic (or desired/necessary resources) for patients with type 1 diabetes, and comments regarding access to specialized care  | 14  |

FoH=Fear of hypoglycemia; HCP=Healthcare provider; N=Number of instances when the specific theme was discussed in the focus groups.

## CONCLUSIONS

- HCPs providers expressed that the FoH screener is necessary and relevant but pose challenges to implementation that must be addressed.
- Focus group results align with the American Diabetes Association position statement, emphasizing the importance of screening for FoH.
- The FoH screener may be incorporated in clinical practice flow for patients with T1D.
- Further studies may be conducted to assess usefulness of the screener in patients with type 2 diabetes.

## Methods

### Eligibility Criteria

- HCPs were included in this study if they:
  - practiced in the United States,
  - had cared for adults with type 1 diabetes (T1D) for ≥5 years.

- Responses were labeled with codes and sub-codes to identify common themes discussed across participants (Table 3).

**Table 1. Sample Questions Asked in the Focus Groups**

| Topic        | Questions used in the focus groups  |
|--------------|---|
| Psychosocial | <ul style="list-style-type: none"> <li>▪ What are top psychosocial needs you see from your patients?</li> <li>▪ Do you have mental health care professionals within the clinic/health system?</li> </ul>    |
| Screener     | <ul style="list-style-type: none"> <li>▪ How confident are you that your clinic could successfully implement the screener?</li> <li>▪ What are barriers to adopting FoH screener at your clinic?</li> </ul> |
| FoH          | <ul style="list-style-type: none"> <li>▪ How do you manage your patients for FoH?</li> <li>▪ What are outcomes associated with FoH?</li> </ul>  |

HCP=Healthcare provider; FoH=Fear of hypoglycemia.

### Statistical Analyses

- All results were presented descriptively with numbers and percentages.

### Recruitment Method

- HCPs were recruited from twelve T1D Exchange Quality Improvement Collaborative (T1DX-QI) adult sites.
- Email advertisements were sent between January and February 2022 to HCPs to inquire about potential interest in the study.
- Based on their responses to the preliminary survey, 11 HCPs were selected to participate in two virtual 90-minute focus groups (two dates/times in March 2022) (Table 1).

### Procedures

- Five HCPs attended the first focus group; six attended the second focus group.
- A guide was used to conduct semi-structured focus groups with HCPs (Table 1).
- Each transcript was deidentified and reviewed to identify key topics of interests.

## Results

- Most participants were either endocrinologists or diabetologists.
- Most participants had 5-10 years of experience in treating patients with T1D (Table 2).

**Table 2. Focus Group Participant Characteristics**

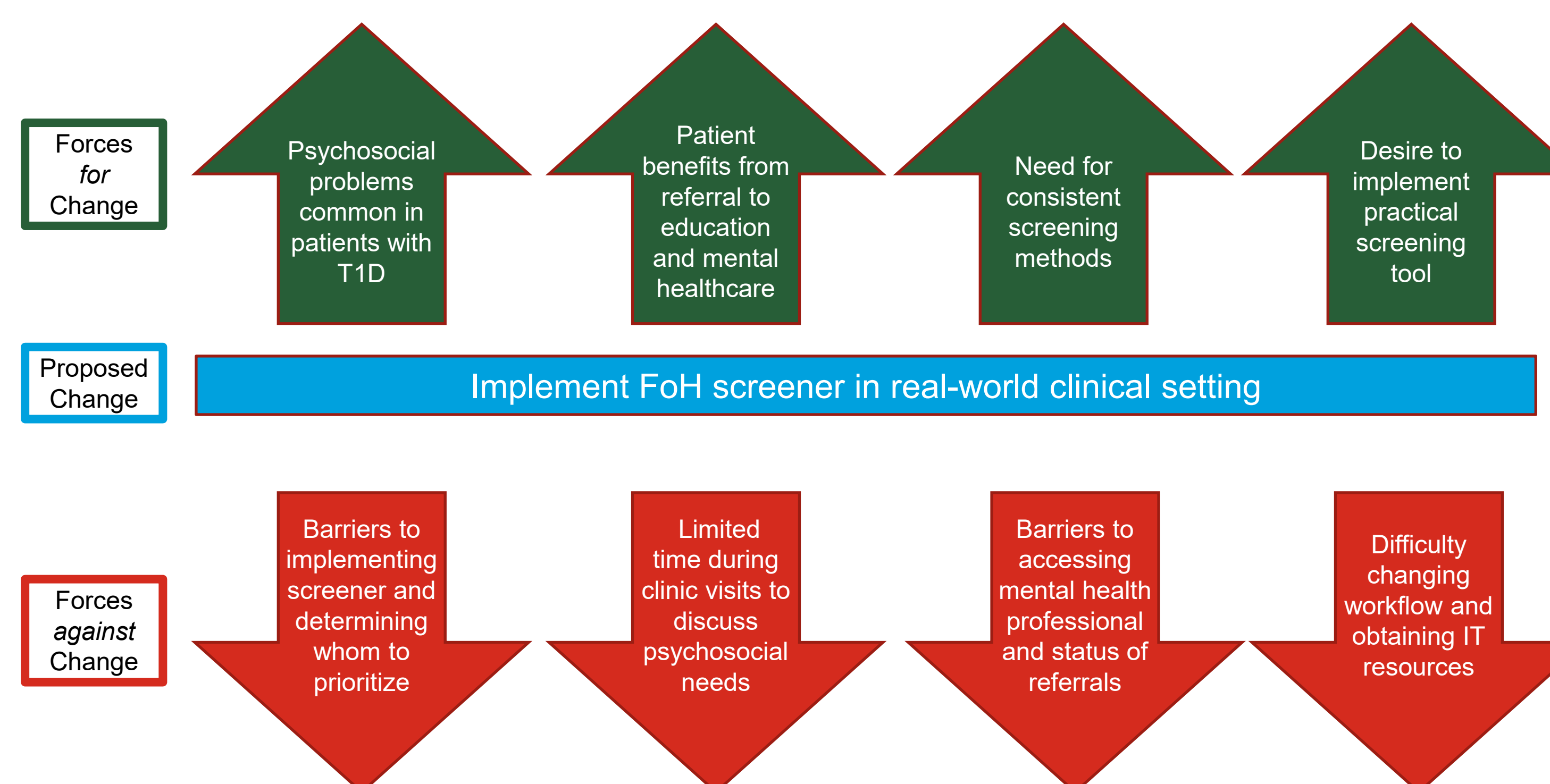
| Characteristic                                     | N (%)   |
|--|---------|
| <b>Healthcare provider type</b>                    |         |
| Endocrinologist/diabetologist                      | 6 (55%) |
| CDCES/CDE*   | 2 (18%) |
| Diabetes nurse practitioner or physician assistant | 1 (9%)  |
| Registered dietician                               | 1 (9%)  |
| Registered nurse                                   | 1 (9%)  |
| <b>Years' experience</b>                           |         |
| 5-10 years   | 7 (64%) |
| More than 10 years                                 | 4 (36%) |
| <b>State</b>                                       |         |
| Florida  | 1 (9%)  |
| Georgia  | 1 (9%)  |
| Illinois   | 2 (18%) |
| Massachusetts                                      | 2 (18%) |
| New York   | 4 (36%) |
| Ohio   | 1 (9%)  |

\*One of the CDE was also a PharmD. CDCES=Certified Diabetes Care and Education Specialist; CDE=Certified Diabetes Educator; N=Number of healthcare professionals.

## Factors and hurdles in implementation of the screener

- Major factors favoring implementation of the screener:
  - Necessity of a validated FoH screener to address patients' psychosocial problems
  - HCPs' desire to implement the screener in clinical setup
- Major hurdles in implementation of the screener:
  - Limited time during clinic visits
  - Prioritizing patients for screening
  - Access to mental health professionals
  - Limited resources

**Figure 1. Factors For and Against Implementation of the Screener**



FoH=Fear of Hypoglycemia; T1D=Type 1 diabetes.

## Limitation

- HCPs recruited for this study were from academic medical centers and members of a quality improvement learning network. Three HCPs were from safety net hospitals and provided care for patients who were publicly insured or uninsured. Hence, these results may not be generalizable for HCPs providing care in other treatment settings.

## Disclosures

- Nicole Rioles, Megan Peter, Katherine Chapman, and Wendy Wolf are employees of T1D Exchange.
- Jingwen Liu is a former employee of T1D Exchange.
- Jiat Ling Poon, Magaly Perez, and Beth Mitchell are employees and stockholders of Eli Lilly and Company.
- Marina Basina and Halis Kaan Akturk received advisory fees from Eli Lilly and Company.

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