

# Healthcare provider perception of diabetic patient disease management and use of remote health technology: With the additional perspective of diabetic individuals



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## BACKGROUND

- Underserved populations (i.e., low-income, racial/ethnic minorities, rural) tend to have higher rates of diabetes.<sup>1</sup>
- Many mHealth (mobile health) trials have been conducted to assess the feasibility and outcomes associated with using remote technology for diabetes management.<sup>2, 3</sup>
- However, direct feedback from healthcare providers and diabetics on their opinions of remote technology is sparse.

**Aim:** Gather the perspectives of providers and underserved diabetics on the barriers and facilitators of remote technology use for diabetes management.

## METHOD

- Procedure:**  
Two clinical psychology graduate students and a faculty mentor conducted four focus groups in a low-income, medically-underserved city in south Texas
- Participants:**
  - Healthcare providers who work with diabetic patients
  - Individuals with diabetes
- Materials:**
  - Demographics form
  - Semi-structured interview

## RESULTS

### Feedback from healthcare providers:

- Most healthcare providers who participated worked as a registered nurse or nurse practitioner (75.0%, or 6/8).
- Most healthcare providers were hopeful, yet skeptical, about the idea of their diabetes patients using remote technology to manage their disease.
- "[CGMS are] a great way for [providers] to see what happens so they can treat it effectively and watch what the figures do."* – Physician assistant, 28 years of experience
- "You might have an elderly patient that is visually impaired or can't hear and they're intimidated by the technology, yet you might have a youth who, they're very good. It's going to be dependent on the population and their socioeconomic status."* – Nurse, 26 years of experience

### Feedback from diabetic individuals:

- Many of the individuals we interviewed had not previously used technology to manage their diabetes. Those that did had varying opinions of it.
- Participants provided some suggestions for technology-in-development:

#### 1) Size and placement of the device

*"You'd have to put it somewhere it doesn't interfere with what you do."* – Male, 48 years old

#### 2) Monitors blood pressure and tracks steps/fitness

- "I don't have one of those ones that counts all your steps and everything, but if I did, if that would help motivate me to... I think to stay on track with walking, or exercising, or whatever."* – Female, 76 years old

- Many of the individuals were also worried about **cost**, and called remote technology a "luxury device"

*"The insurances might not pay for it because it's new...It's not a need per say, it's a want."* – Female, 56 years old

## RESULTS (Continued)

	Healthcare Providers (n = 8)		Diabetic Participants (n = 20)	
	N	%	N	%
Gender				
Male	2	25%	7	35%
Female	6	75%	13	65%
Age	39-80 years	59.9 ± 11.8	32-77 years	58.7 ± 11.7
Language				
English	8	100%	17	85%
Spanish	0	0%	3	15%
Ethnicity				
Hispanic	5	62.5%	18	90%
Non-Hispanic	3	37.5%	2	10%
Race				
White	6	75%	17	85%
African-American	1	12.5%	0	0%
Mexican	1	12.5%	1	5%
Did not say	0	0%	2	10%
Social Class				
Working class	1	12.5%	5	25%
Lower middle class	2	25%	3	15%
Middle class	3	37.5%	11	55%
Upper middle class	2	25%	1	5%
Upper class	0	0%	0	0%

Table 1. Demographic information from participants in each focus group.

## CONCLUSION

*It would be neat to have something like that that would bounce off a satellite or whatever to keep information of how you're doing. I mean that would be something awesome, but that's in the future I think."* – Female, 52 years old

### Limitations:

- Sample generalizability
- All focus groups were conducted in the same city
- Only one focus group has been conducted with healthcare providers

### Future Directions:

- The next focus group will be conducted in Los Angeles, CA in order to broaden the generalizability of the sample
- An mHealth intervention study will be conducted utilizing the feedback from these focus groups.

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