

BACKGROUND

- Recent RCT¹ found greater improvements in Freestyle Libre 3 (FSL3) users vs self-monitoring of blood glucose in:
 - Engagement in diabetes self-management
 - HbA1c
- Impact of Glucose Monitoring on Self-Management Scale (IGMSS)² measures the impact of glucose monitoring on engagement with diabetes self-management
- IGMSS was developed based on the Capability + Opportunity + Motivation lead to Behavior (COM-B) model²
- This follow-up study investigated *how* FSL3 led to these behavioral and glycemic changes

METHODS

- Qualitative thematic analysis among new FSL3 users from recent U.S.-based RCT
- Semi-structured interviews at study end – 3 months post-initiation of FSL3
- Adults with T2DM on basal or non-insulin treatment, with HbA1c > 7.5%
- Combined inductive and deductive approach to data analysis – qualitative coding system by 2 independent reviewers with 3rd party consensus

RESULTS

- N=31 adults interviewed (67% of FSL3 arm of recent RCT¹)
- 3 attitudinal themes resulting from CGM were identified (Figure 1):
 - Greater awareness (n=29, 94%)
 - More informed decision-making (n=21, 68%)
 - Improved self-efficacy (n=20, 65%)
- 3 behavioral themes resulting from CGM were identified (Figure 1):
 - Improved diet (n=26, 84%)
 - Improved physical activity (n=11, 35%)
 - Improved medication use (n=6, 19%)
- At study end, n=29 (94%) wanted to continue CGM, but n=23 reported they could not do so, primarily due to cost concerns
 - Of this n=23, n=12 (52%) reported regressing to pre-study behaviors upon stopping CGM

CONCLUSIONS

- This study elucidates the ways in which CGM can lead to improved glycemic control – through several common CGM-induced attitudinal and behavioral changes
- Ensuring broad access to CGM technology is critical for the optimization of diabetes management, including for those with less intensively managed T2DM
- Continued use of CGM is important to sustain glycemic benefits

Figure 1. CGM-induced attitudinal and behavioral themes identified, with percent of interviewees reporting, mapped to capability, opportunity, and motivation domains of COM-B model

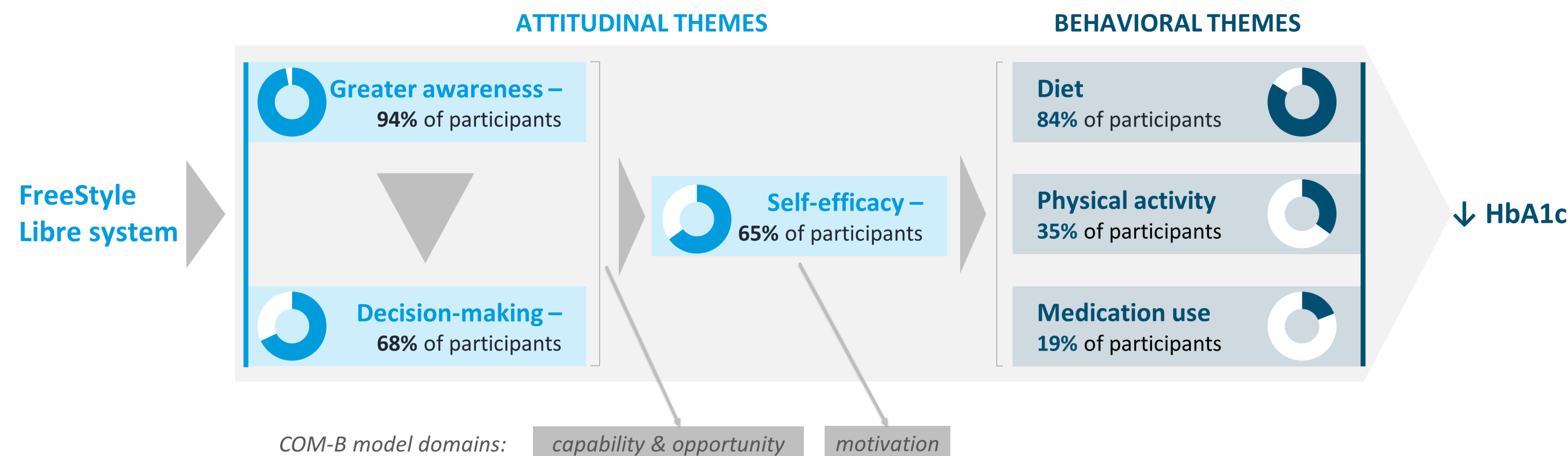


Table 1. Selected interviewee quotes in relation to FreeStyle Libre (FSL) use, for each attitudinal and behavioral theme identified

Theme Category	Theme	Quote
ATTITUDINAL THEMES	Greater awareness	"Awareness is a key factor in making better choices... Even though I had done research on what to eat and what not to eat when I was first diagnosed, when I was able to see it in front of me, that made the biggest difference. I knew if I ate white rice my sugar would go up, but wow. I didn't know it would go up that high. So, I began to wear myself off of that. Same thing with French fries." (oral medication and weekly non-insulin injectable user)
	Self-efficacy	"It helped to enforce that I CAN do this. I have tools and my body is at a point where if I treat it okay, it's possible to make things better." (basal insulin user)
	Decision-making	"The ability to know if I'm making good or bad choices has made a big impact on my health... seeing how exercise affects my BG [blood glucose] has made that very motivating." (oral medication user)
BEHAVIORAL THEMES	Diet	"I didn't change the types of foods I ate that much, but rather cut down on portion sizes and used FSL to help determine when and how much I should eat. For example, if my numbers were trending higher, I won't eat as much and would drink water or unsweet tea. I also stopped snacking." (oral medication user)
	Physical activity	"I've tried to shift my workouts to the AM, to help get my sugar down at a time where it tends to be naturally high. That way I don't drop too low either. I'm also working out more often than I used to. I walk every day for 30 minutes now, I didn't walk at all before FSL." (oral medication user)
	Medication use	I had moments where I thought the medicine wasn't doing anything for me, so I'd just stop taking it. Then I started having trouble with my eyes and my sugars were really high. When I got FSL, I felt motivated to take my medications because I could see that they work. I'm much more consistent with my medications now." (oral medication user)

REFERENCES

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