

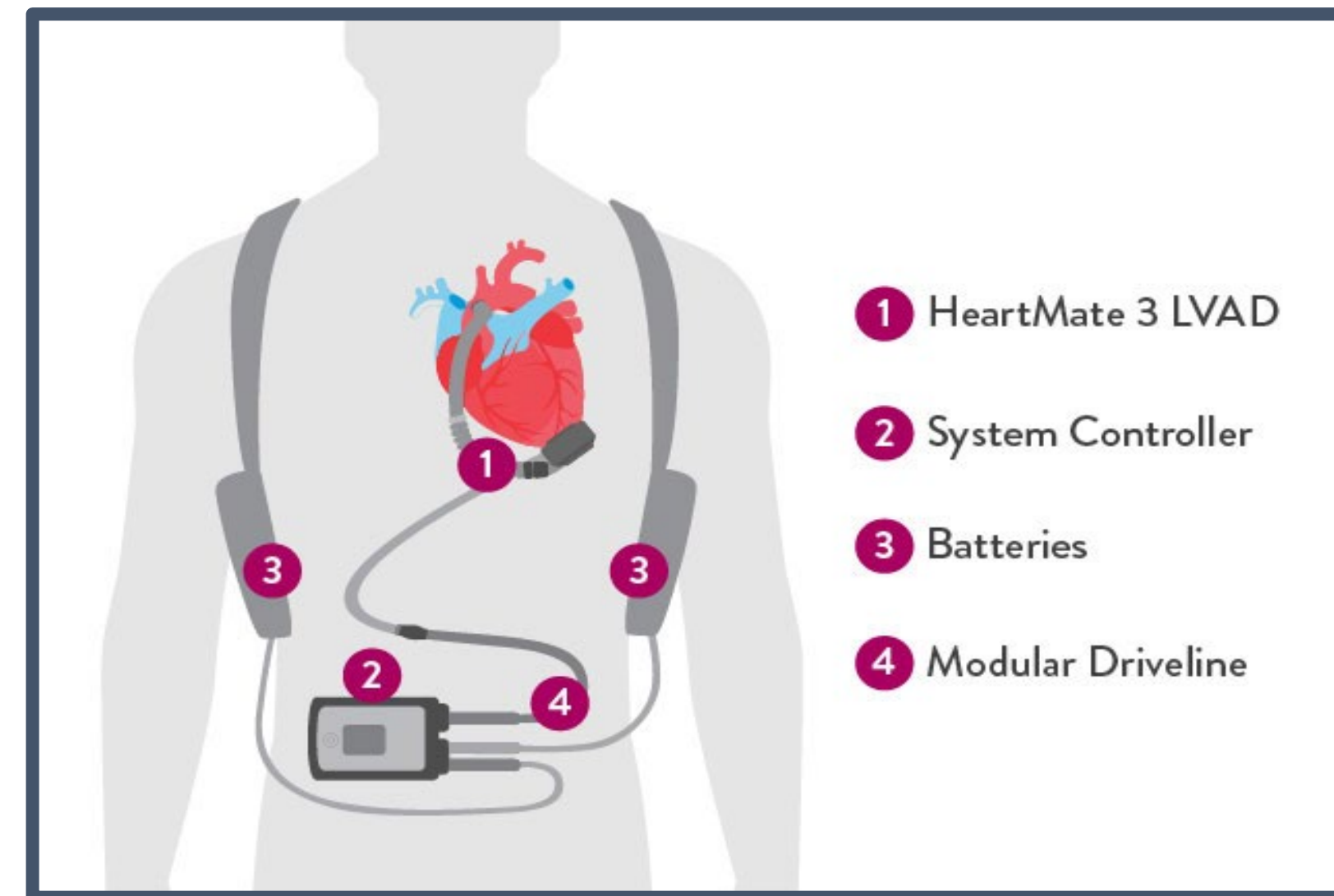
# Better Decisions, Fewer Regrets: Assessing Patient Satisfaction After Left Ventricular Assist Device

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## Background

There are approximately 6.2 million patients with Heart Failure (HF) living in the United States, and thus it will be increasingly important to provide high-value, patient-centered care. **Left ventricular assist devices (LVADs)** are mechanical pumps commonly utilized as life-saving therapy among patients with end-stage HF (**Figure 1**).

While LVADs have the capacity to prolong survival and improve clinical HF symptoms, patients sometimes regret their decision to receive an LVAD due to the transformative impact this intervention has on one's physical function, social role, and emotional state. There are limited studies assessing patient satisfaction, and quality of life (QOL) post-implant<sup>1,2</sup>.



**Figure 1.** Graphic Depiction of HeartMate3™ LVAD developed by Abbott<sup>3</sup>.

## Objectives

This study aims to measure decision regret and explore QOL outcomes among recent LVAD patients at the University of Rochester. Our hope is to develop improved anticipatory guidance and provide further behavioral psychotherapy support to vulnerable LVAD candidates moving forward.

## Methods

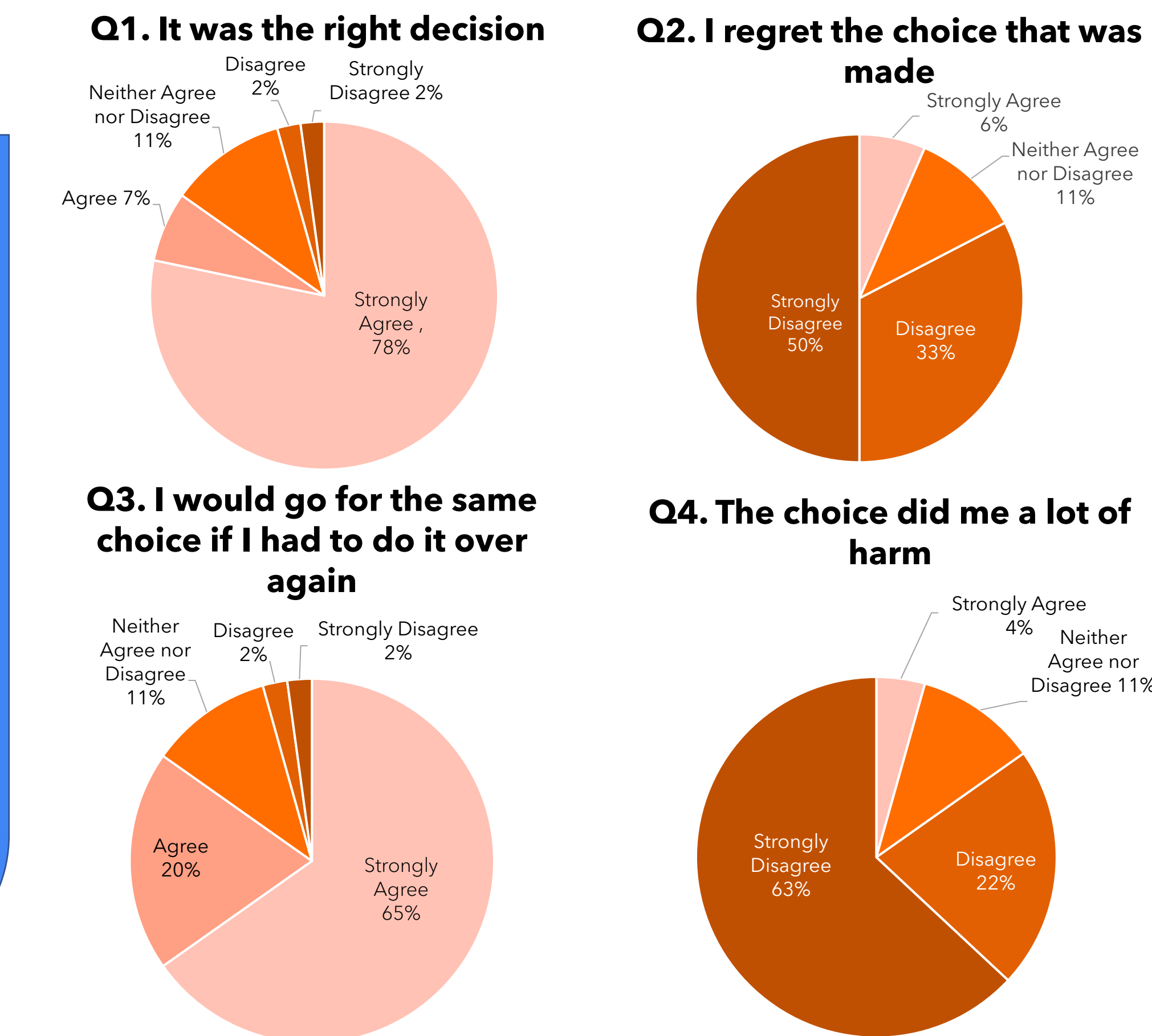
- To objectively measure QOL and patient satisfaction, we utilized a **Decision Regret Survey**<sup>4</sup> with three supplementary open-ended questions (**Figure 2**).
- From January 2021 to August 2022, LVAD patients were recruited and consented in the URMCC Cardiology Advanced Heart Failure Clinic.
- Surveys were completed once during in-person follow up visits, then subsequently entered into REDCap.
- These forms collectively created a centralized database in REDCap of all patient self-reported experiences living with an LVAD.
- A thematic catalog was developed from the supplemental open-ended questions. The frequency of themes was coded and recorded by the study team utilizing grounded theory approach (**Figure 3**).

## Results

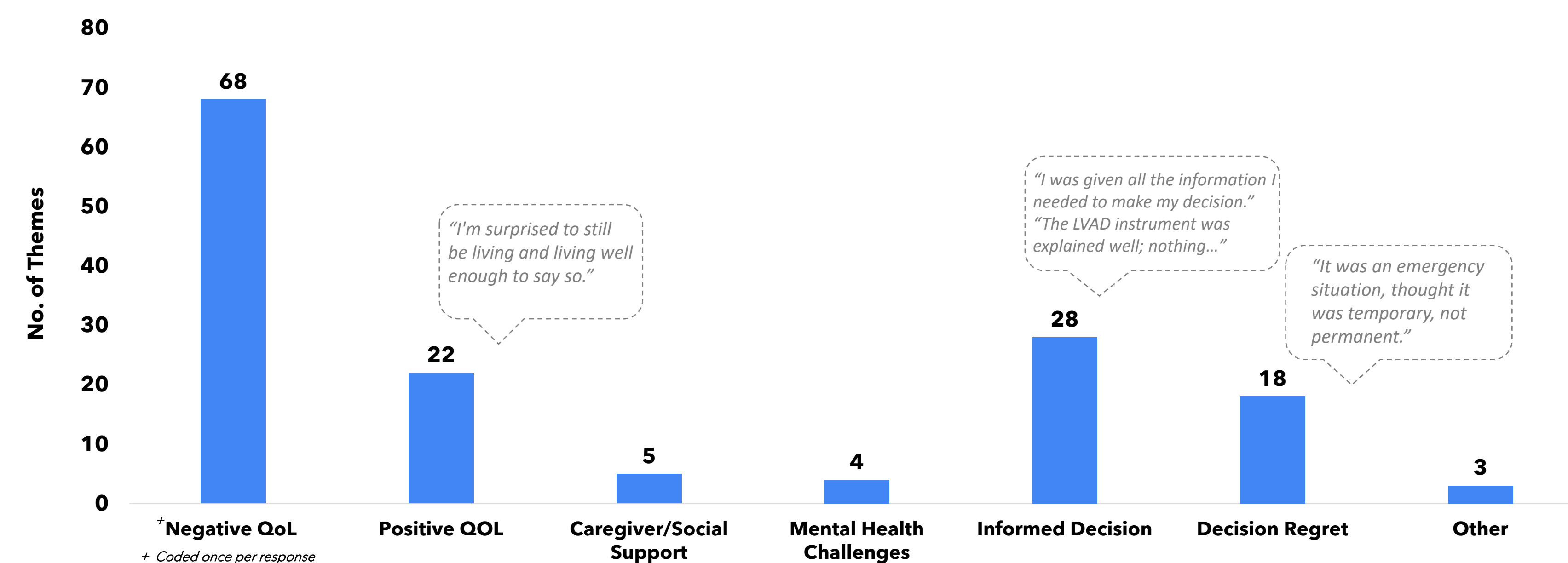
### Decision Regret Survey

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1) It was the right decision.	0	0	0	0	0
2) I regret the choice that was made.	0	0	0	0	0
3) I would go for the same choice if I had to do it over again.	0	0	0	0	0
4) The choice did me a lot of harm.	0	0	0	0	0
5) The decision was a wise one.	0	0	0	0	0
6) What do you wish you knew before getting your LVAD?	_____				
7) What has been the most surprising thing to you about life with an LVAD?	_____				
8) What have been your biggest challenges since getting an LVAD?	_____				

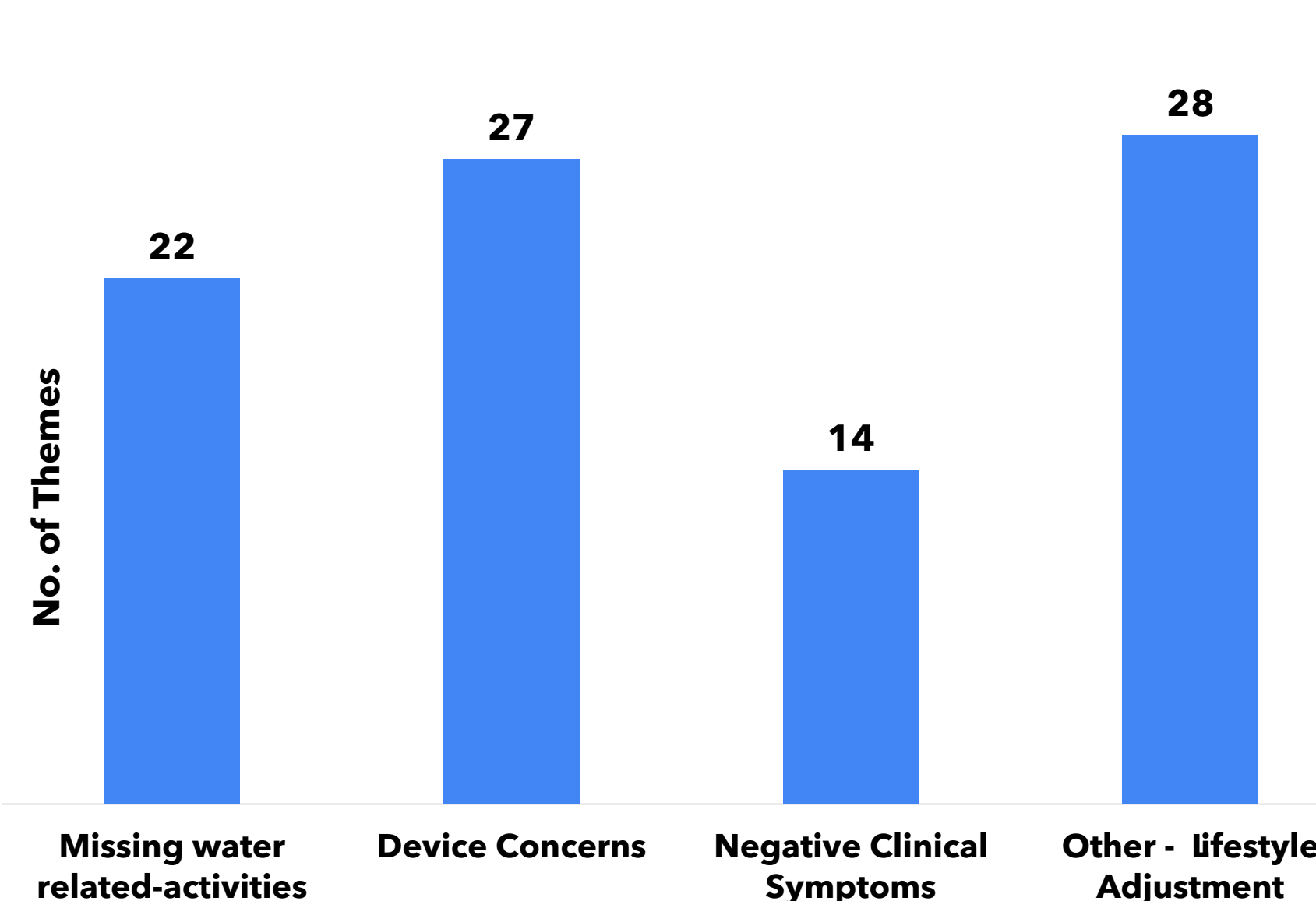
**Figure 2a.** Example of the Decision Regret Survey & 3 Supplemental Free-Text Questions.



**Figure 2b.** Distribution of Patient Responses to Survey Questions 1 - 4.



**Figure 3a.** Principal Themes Coded from Free-Text Responses



**Figure 3b.** Negative QOL Themes<sup>++</sup>

<sup>++</sup>Unique themes coded multiple times per response, n = 91.

### Exemplary Negative QOL Quotes:

"I wish I knew how hard it was going to be to manage my medications. I wish I had known how difficult self care would become."  
 "That I have been able to accept my fate about having an LVAD and being limited in doing certain things."  
 "missing showers..", ". finding a new way to clean myself; not getting wet."  
 "Challenges. Being very careful of driveline to LVAD."  
 "Sacrificing a lot of my lifestyle (knowing what I cannot do physically), trying to not be concerned with what I call my normal life."  
 "The amount of psychological/mental strength that would be required to thrive after the LVAD."

## TABLE 1: Patient Demographics

	N (%)
<b>LVAD Patients</b>	46
<b>Mean Age (SD)</b>	53.9 (+/- 12.7)
<b>Gender</b>	
Male	35 (76.1 %)
Female	11 (23.9 %)
<b>Race/Ethnicity*</b>	
White	32 (69.6 %)
Black	11 (23.9 %)
Latino, Asian, American Indian, Other	3 (6.5 %)
<b>NYHA Class* (Pre-VAD)</b>	
I	1 (2.2%)
III	8 (17.4 %)
IV	37 (80.4 %)
<b>LVAD Device</b>	
Heartmate II	12 (26.1 %)
Heartmate 3	34 (73.9 %)

\*Data obtained from URMCC electronic health record

## Results

- Majority of patients had a New York Heart Association (NYHA) Class IV.
- Per the INTERMACS (Interagency Registry for Mechanically Assisted Circulatory Support) Profiles<sup>5</sup>, 89.1 % were categorized as class 1 - *Critical Cardiogenic Shock*, class 3 - *Stable, but Inotrope Dependent*, or class 4 - *Resting Symptoms*.
- Patients overwhelmingly agreed (85 %) that [an LVAD] was the right decision, with 83% denying decision regret, and 85% reporting they would make the same choice again.
- Seven thematic domains were identified.
- Across all responses, 68 of 148 or 45.9% of coded themes were related to negative QOL.
- Device/Equipment Concerns and Other-Lifestyle Adjustment Domains were the most frequently mentioned negative QOL themes representing 60.4 % of responses.
- Patients reported low rates (14/91) of negative clinical symptoms with LVAD.

## Conclusions

In conclusion, LVAD patients had low rates of decision regret, however, endorsed increased negative QOL experiences, especially related to lifestyle adjustment and device concerns. Further exploration of these at-risk patient subgroup profiles with high negative QOL themes and associated outcomes can be studied to better support our growing LVAD community.

### References:

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