

## Identity-Augmented Thematic Analysis with Multi-Agent LLMs in Clinical Contexts

Scaling Qualitative Research in Rare Disease Care

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After Surgery, What Comes Next?

"Most patients' lives occur outside of medical interactions."

- Mery et al., 2023

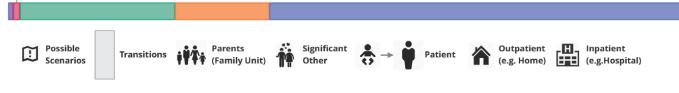
# What Happens After Discharge?

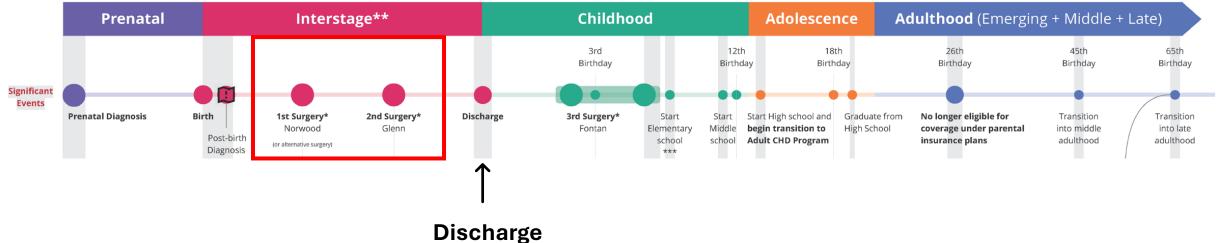
#### Lifelong Journey Overview: Single Ventricle Congenital Heart Disease

This map is meant to serve as a baseline overview of what you might experience throughout your life if you or your child are diagnosed with a Single Ventricle (SV) Physiology. Please understand that every person and their family have a highly variable life experience based on their diagnosis and living situation. More information is available online at: <u>coragemap.com/</u>

#### How to read this map

-> This pink Interstage segment represents 6 months time unadjusted, on the map below time is adjusted to accomodate possible scenarios and transitions





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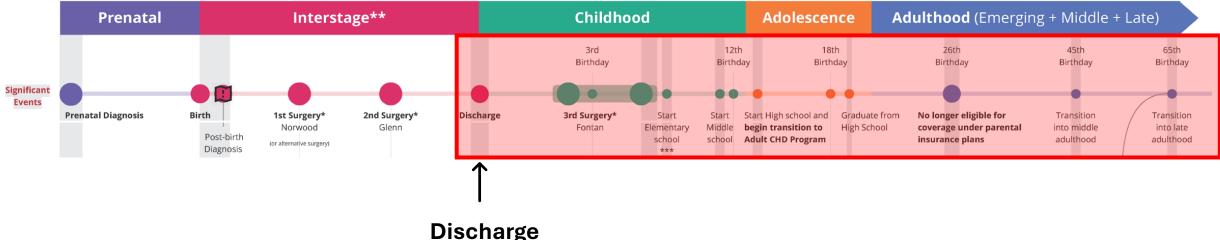
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# **Why Scaling Thematic Analysis Matters**

#### **Persistent Gaps in Care**



Fragmented care after discharge



Unmet needs during life transitions



Families lack guidance, not just procedures



#### Why It's Hard to Fix

Manual thematic analysis is **powerful**... but **costly** 



Takes months of expert labor



Only feasible on small samples

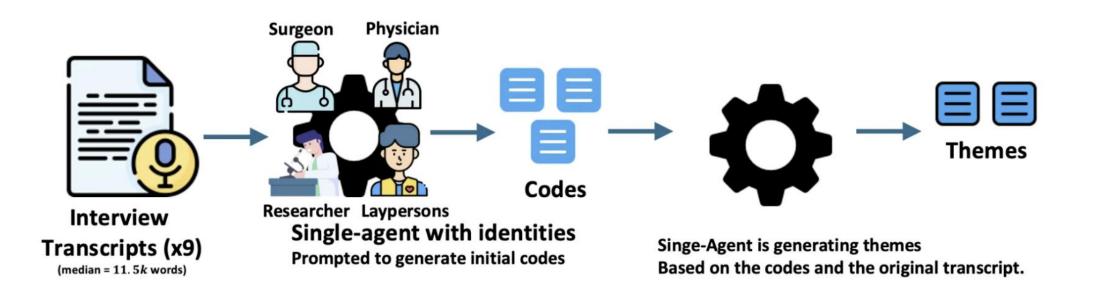


Insights often don't scale to system-level change

We need a way to extract meaningful outcomes and care gaps--across hundreds of narratives--without months of manual work



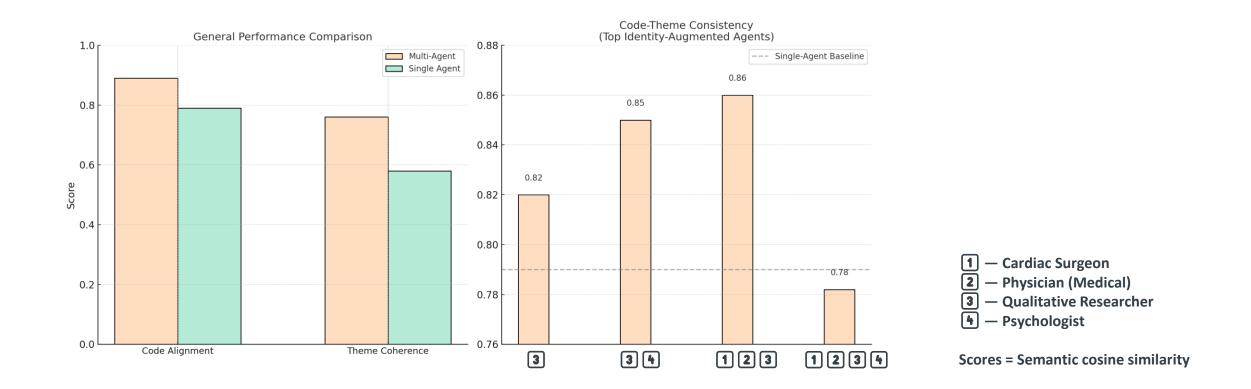
### Identity-Augmented Thematic Analysis with Multi-Agent LLMs



Each agent brings a lens. Together, they reveal what matters.



### **Identity-Based Agents Improve Thematic Insight**

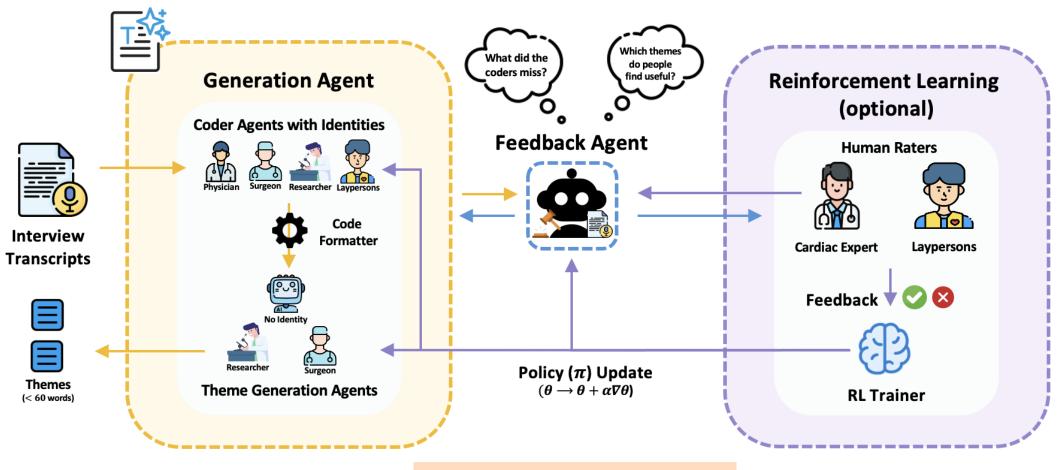


Identity-based agents outperformed single agents, revealing themes families care about.



## **Future Directions**





Feedback Agent to be *Smarter* 



#### QUESTIONS charlie.yi@utexas.edu

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