



# THE DEVELOPMENT OF PEER MODELS (MANAGING A COMMUNITY-BASED HIV, DIABETES, AND PAIN INTERVENTION THAT ENCOURAGES HEALTHY LIVING AND PROVIDES SUPPORT) FOR PEOPLE LIVING WITH HIV AND DIABETES IN THE SETTING OF CHRONIC PAIN

Poster #



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## Background

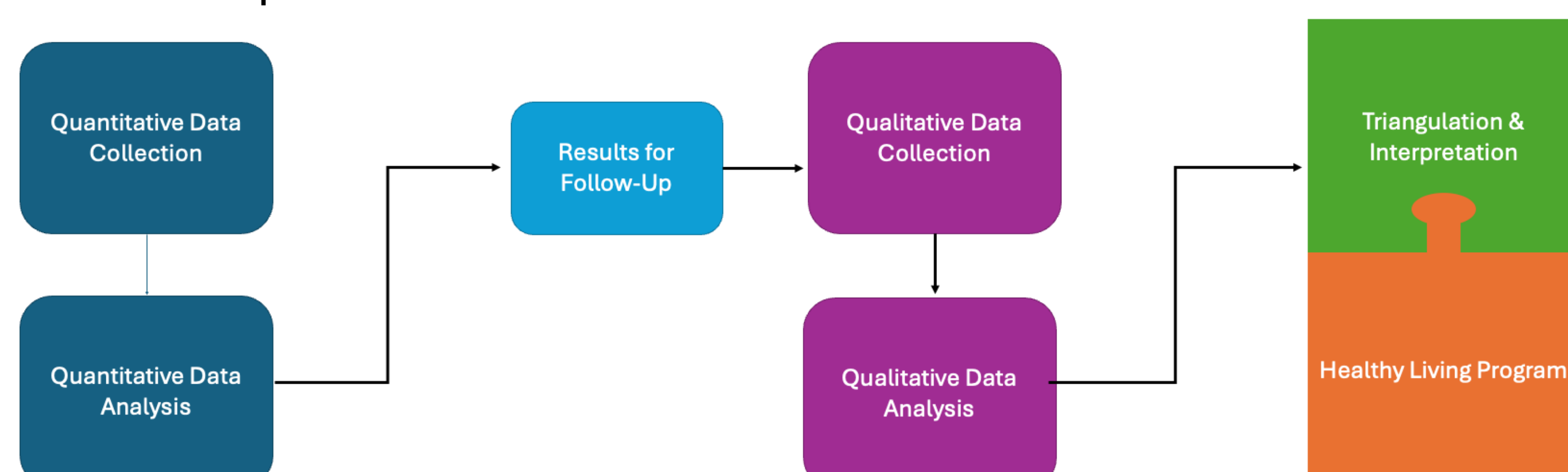
- The introduction of antiretroviral therapy medications for people living with Human Immunodeficiency Virus (PWH) changed the lifespan trajectory from a rapidly fatal disease to a complex chronic condition [1, 2], leading to a rise in non-HIV related comorbidities [1] like diabetes [3], and chronic pain [2].
- In the U.S., approximately 15% [4] of the 1.2 million PWH [5] have co-morbid diabetes, and roughly 25-90% of PWH experience chronic pain [6]; which, if left untreated, can reduce quality of life [7].
- Tailored self-management interventions are needed to understand the complexity of managing co-morbid HIV and diabetes in the context of chronic pain, which can hinder effective self-management strategies and increase the risk of mental, physical, and emotional disorders.

## Project Aims

- AIM 1.** Identify (a) the prevalence of co-morbid diabetes and pain among PWH and (b) factors associated with dual prevalence of diabetes and pain in PWH in the South.
- AIM 2.** Through qualitative formative evaluation, conduct semi-structured interviews (n = 15) to explore perceptions, attitudes, and beliefs on the co-occurrence of diabetes, HIV, and pain.
- AIM 3.** Integrate methods and practical applications into a CBT peer-led intervention called Peer MODELS for PWH and diabetes in the context of chronic pain.

## Study Design

- Explanatory Sequential Design:** a mixed method approach characterized by collecting and analyzing quantitative data, followed by the collection and analysis of qualitative data.
- We will triangulate and interpret findings from AIM 1 & AIM 2 and then, integrate these results into the *Living Healthy* Program.
  - Living Healthy* was a peer-led cognitive behavioral training intervention conducted as a cluster-randomized, community-based pragmatic trial from 2013 to 2015 in rural Alabama counties for people living with diabetes and chronic pain.



## Theoretical Framework

This study is informed by the Andersen's Sociobehavioral Model of Health Services and Cognitive Behavioral Theory & Cognitive Behavioral Theory.

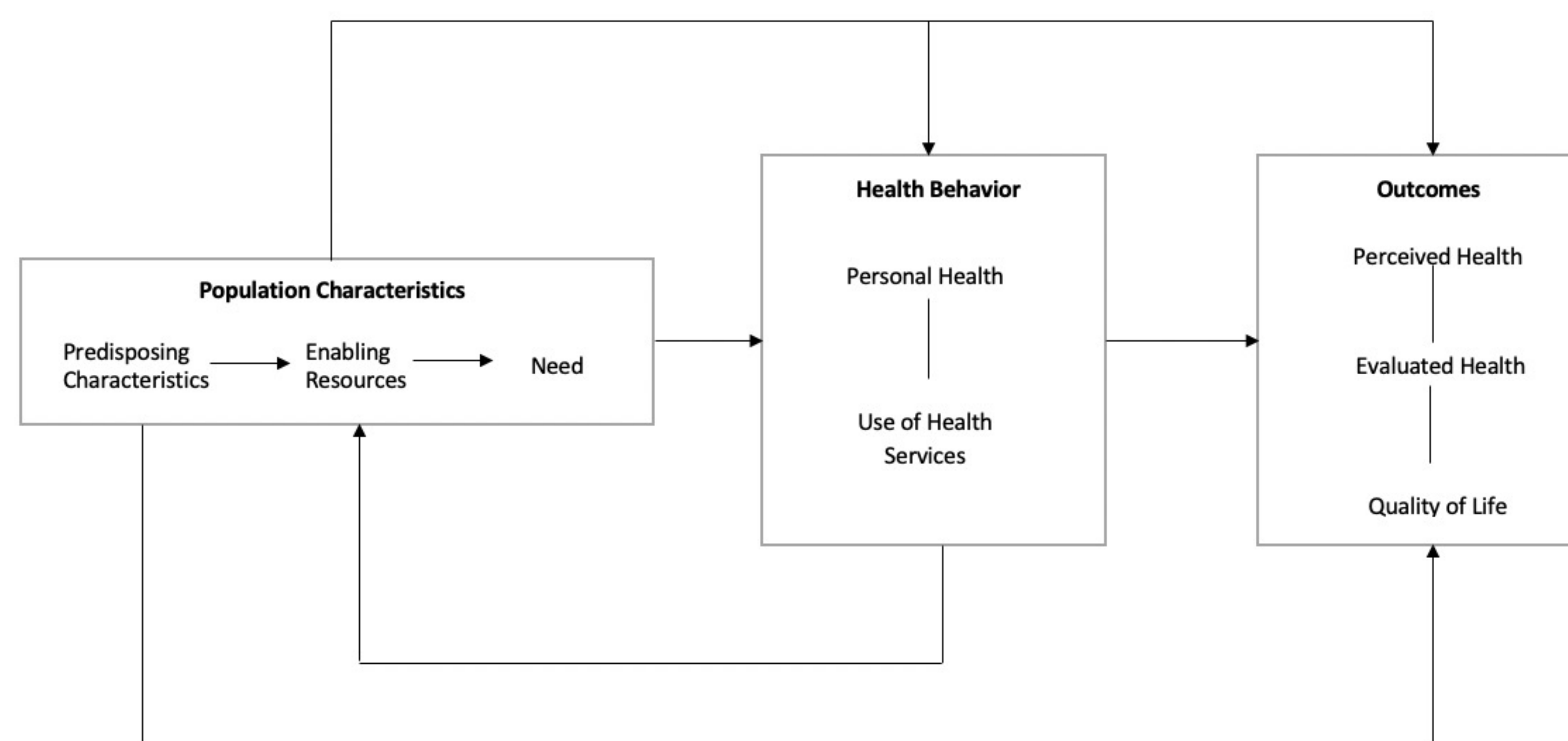


Figure 1. Andersen Sociobehavioral Model of Health Service Use. Adapted from: Andersen

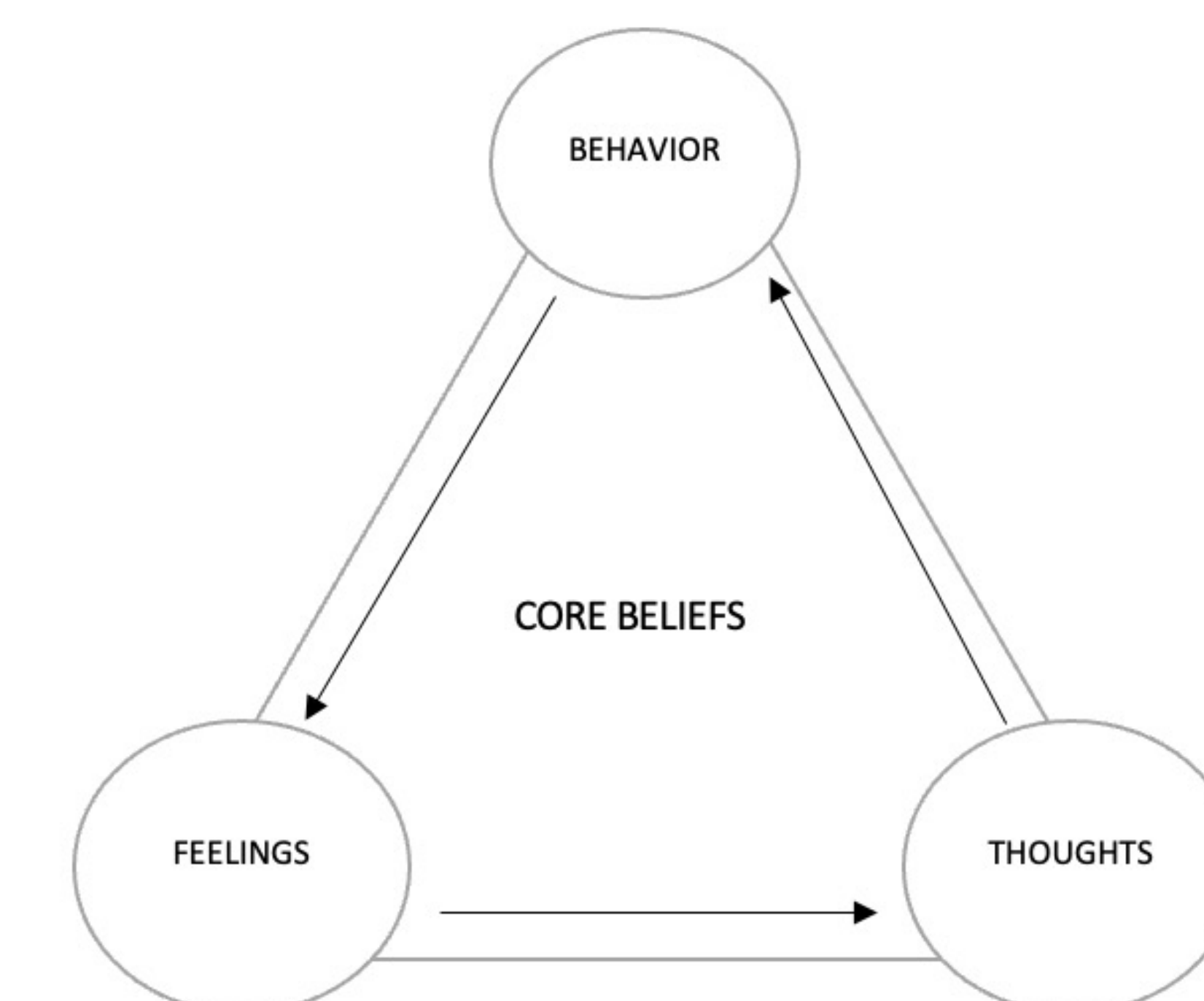


Figure 2. Cognitive Behavioral Theory. Adapted from: Beck (1960)

## Outcomes

- AIM 1:** Prioritize contextual and individual determinants that act as barriers or facilitators to health service utilization for PWH, diabetes, and chronic pain.
- AIM 2:** Understand the relationship between emotions, thoughts, behavior, and actions to gain insight into thought patterns that play a key role in emotional state and response to events for PWH, diabetes, and chronic pain.
- AIM 3:** Create materials for intervention (e.g., 15-30-minute educational video, content & activities for sessions, etc.)

## Key Messages

- PWH experience a high dual burden of diabetes and chronic pain.
- Self-management education and support programs are available.
- However, understanding the dual-specific behaviors, such as, blood glucose monitoring and foot inspections for individuals with diabetes and symptom management and harm reduction for PWH, are not available.
- To address this unmet need, we will develop Peer MODELS by integrating our collected data into *Living Healthy*, an evidence-based intervention for diabetes and chronic pain.

## Community Impact

- The Translational Science Benefits Model (TSBM) is used to assess the health and societal benefits of translational and clinical science.
- Peer MODELS is categorized within the **community and public health domain** in the TSBM. We aim to (a) provide health education resources, which serves as evidence of knowledge translation to the participants as well as the community at large; and (b) improve life expectancy and quality of life, which are commonly used to assess the community health overall.
- To create sustainable and meaningful changes in the community, our community partners will be **UAB HIV Prevention Community Advisory Board**, a coalition of community members who represent differences in sex, race, age, or sexual orientation and **Connection Health**, a local non-profit that provides peer coaching and community health worker training and services. Both organizations will play an integral role in this project.

## References



SUPPORTED BY  
NIMHD AWARD  
#P50MD017338

