



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



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Background

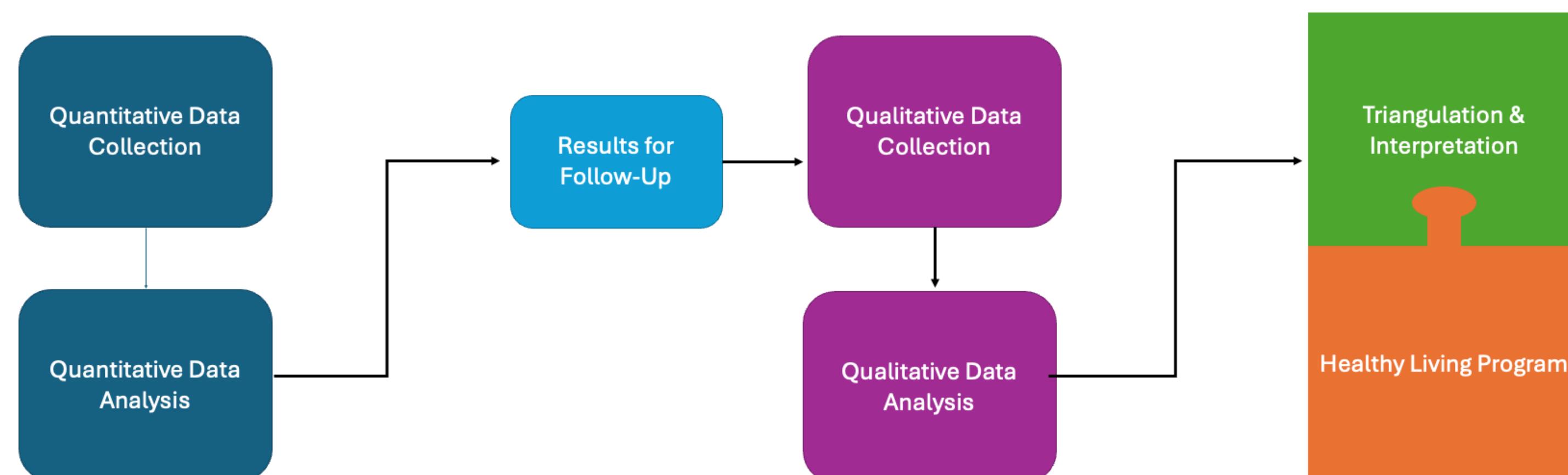
- The introduction of antiretroviral therapy medications for people living with Human Immunodeficiency Virus (PWH) changed the lifespan trajectory from a rapidly fatal disease to a complex chronic condition [1, 2], leading to a rise in non-HIV related comorbidities [1] like diabetes [3], and chronic 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.

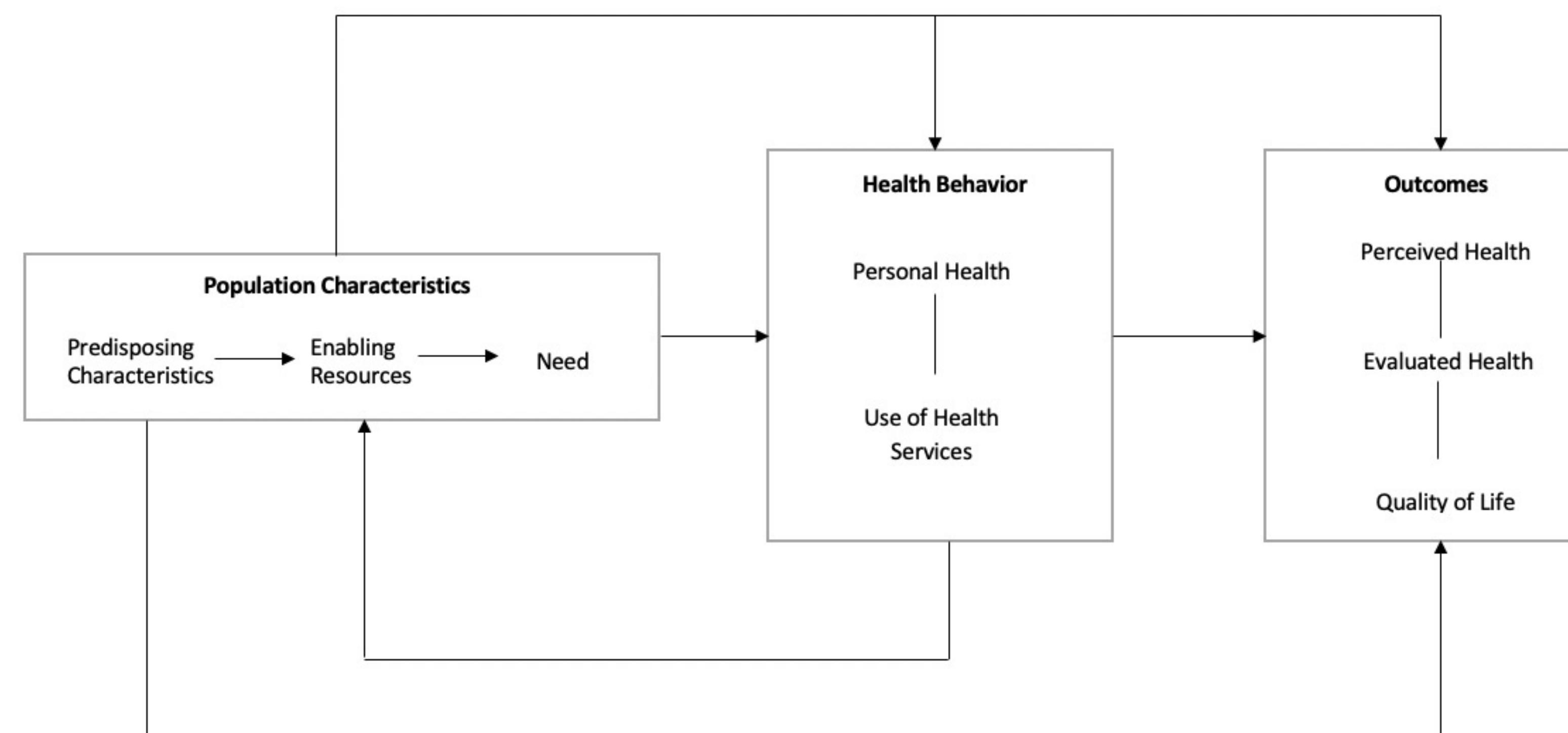


Figure 1. Andersen Sociobehavioral Model of Health Service Use. Adapted from: Andersen

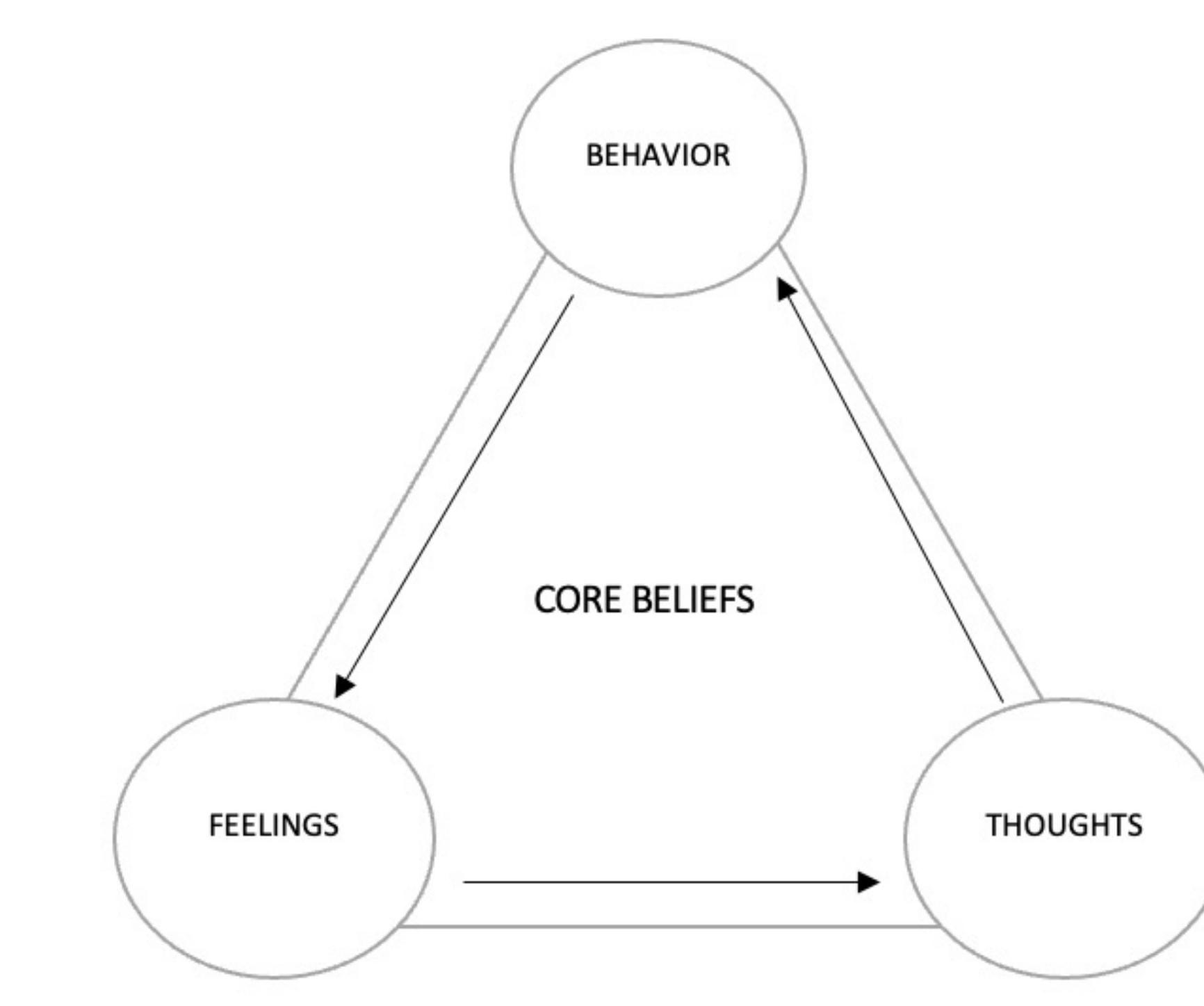


Figure 2. Cognitive Behavioral Theory. Adapted from: Beck (1960)

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



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