Exploring a **Multifaceted Framework** to Support the **Design of Mobile Apps** for **Self-Regulating Anxiety**

The ubiquity of mobile devices gives rise to mobile applications designed for self-regulating anxiety, yet empirical evidence of the efficacy and safety that these apps provide is lacking.

Mobile Apps Have the Potential to be a Supplemental Tool for Anxiety Regulation

Even though there may be potential benefits to using a mobile app to help alleviate or manage anxiety, ***"there's only so much an app can do"*** (P4). Participants shared that an app may be useful, but it should be a supplement, ***"in the short term, it might be a great solution"*** (P3), and not something they want to rely on for an extended amount of time.

Naturalistic And Trustworthy Communication Provides Relief

Human interaction, primarily in person and from someone close, was preferred by the majority of participants, as mentioned by P3: ***"Human interaction is usually the first one I go to. Direct human interaction... like through a phone or text."*** This was because someone close offered a sense of comfort, as trust is already established.

Anxiety Is An Individualized Experience That Requires User-Level Customization

Due to the ***"wide spectrum"*** (P5) of anxiety triggers, and ***"everyone has a different process"*** (P6) for regulating their anxiety.

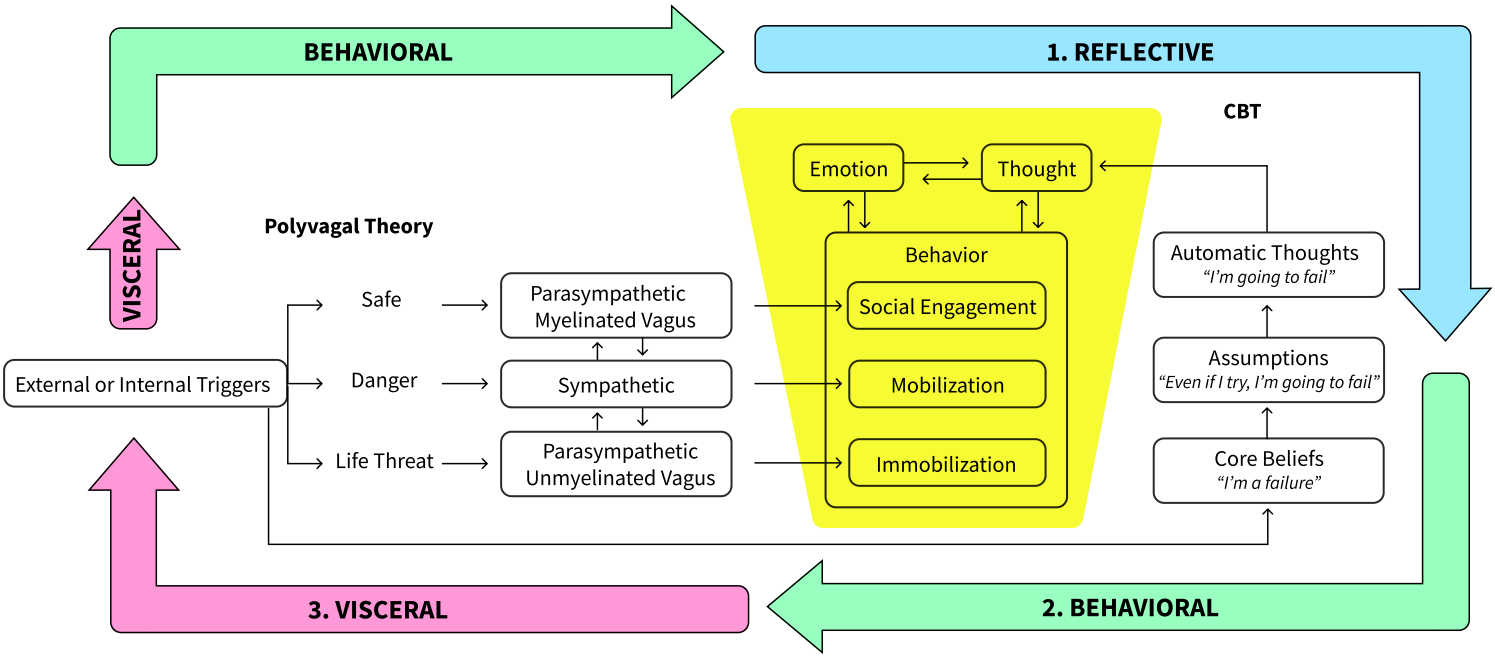

Figure 1: A multifaceted framework based on the Polyvagal Theory, Cognitive Behavioral Therapy and Norman's 3 Levels of Emotional Design

Our framework is an iterative cycle that can be applied during the discovery phase to understand anxiety, by helping to explain anxiety's ***triggers and symptoms*** based on three phases, ***visceral, behavioral, and reflective***.

VISCERAL
Processing of information from triggers in the autonomous nervous system occurs outside of consciousness.

BEHAVIORAL
Controllable actions such as mobilizations and engagement with or avoidance of social activities occur in response to anxiety triggers.

REFLECTIVE
Ideation such as "I am a failure" can short-circuit planned actions.

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