

Designing Pluralistic AI Coping Support: A Gamified System with Randomized Multi-Framework Encounters

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1 Introduction

AI-assisted mental health tools increasingly provide always-available conversational support for emotional reflection, self-monitoring, and coping guidance [10]. Early systems such as Woebot [7] and Wysa [9] demonstrate how conversational agents can deliver structured mental health support through a consistent agent voice, personalized check-ins, and exercises adapted from Cognitive Behavioral Therapy (CBT) and related evidence-based techniques. In these systems, coping is often framed through identifying thoughts and emotions, reframing unhelpful interpretations, practicing skills, and making behavioral changes. While CBT has substantial empirical support [3, 8], CBT-oriented conversational tools may repeatedly organize support around a relatively stable coping pathway, limiting users’ exposure to other ways of interpreting and responding to distress [15].

Therapeutic pluralism offers a different starting point: there is no single right therapeutic method for all clients and situations [5]. The coping flexibility hypothesis provides a complementary psychological basis for this pluralistic view: people who draw on a wider coping repertoire adapt better to stressors [4]. Yet breadth alone does not guarantee exploration. In moments of distress, users may gravitate toward familiar perspectives and avoid frames that initially feel unintuitive or uncomfortable. Work on serendipity in recommendation systems shows that unexpected encounters can break filter bubbles and lead to positive discovery [2, 12]. Together, these ideas motivate a coping-support system that creates structured encounters with alternative coping frameworks.

We designed *Coping Gacha*, a mobile-based application combining gacha-style card-drawing play mechanics with an LLM backend to deliver ten distinct coping perspectives informed by Skinner et al.’s coping taxonomy [14]. The system presents diverse coping perspectives as separate cards that users can encounter, compare, save, revisit, and selectively incorporate into their own coping practices. Its interaction mechanisms include randomized card draws, contrastive anchoring between responses, brief interruptions from less familiar perspectives, contextual bookmarking, and a repertoire visualization, drawn from behavior change literature [6, 16, 17]. With this system, we aim to understand the experiences and practices that emerge from interacting with multiple coping frameworks, in order to explore how wellbeing technologies can support pluralistic, reflective encounters with different ways of making sense of distress.

2 System Design

Three principles guided the design of Coping Gacha. *Plurality*: the system presents ten coping frameworks as separate cards, each embodying one interpretive lens. *Serendipity*: a gacha-style¹ randomization mechanic creates unchosen encounters with frameworks users might not actively seek, replacing personalized recommendation with designed surprise. *Cumulative reflection*: saving, revisiting, and repertoire visualization features help users notice patterns in how they engage with different frameworks over time. Together, these principles structure a flow in which users articulate a challenge, encounter and converse with a randomized coping perspective, and later return to saved responses or engagement patterns (Figure 1). The system is implemented using React Native framework and the Claude API (claude-sonnet-4).

2.1 Card Types and Prompt Design

We developed ten card types informed by Skinner et al.’s coping taxonomy [14] and categorized them into four voice tiers based on how likely users would be to encounter each perspective in everyday life. *Familiar voices* (*Cognitive Restructuring*, *Supportive*, *Cathartic*) reflect common responses from friends and family. *Deeper voices* (*Self-Compassion*, *Somatic*, *Dialectical*) surface less often in casual conversation but are recognized in therapeutic practice. *Distant voices* (*Pragmatic*, *Structural Critique*) are rarely offered unprompted. *Natural voices* (*Ecological*, *Temporal*) are almost never encountered in everyday social support but may open fundamentally different ways of relating to distress.

Each card runs on a dedicated system prompt specifying core beliefs, permitted moves, disallowed moves, and fallback responses. A card is instructed not to offer balanced advice; plurality emerges across cards.

2.2 Gacha Mechanic and Encounter Diversity

Users describe what is on their mind and draw cards at random. Encounter rates mirror the voice tiers: familiar voices appear most frequently, natural voices least, reflecting their real-world scarcity and ensuring that encounters with less intuitive frameworks feel like genuine discoveries. Users can select a card to begin a conversation, skip to draw again, or reroll after chatting. A pity mechanic allows free choice after eight skips. An *anti-repetition* mechanism reduces a drawn card type’s reappearance probability by 50%, ensuring broad framework coverage within limited draws.

¹“Gacha” refers to a randomized draw mechanic, derived from capsule-toy vending machines. Here it is used to create chance encounters with different coping perspectives.

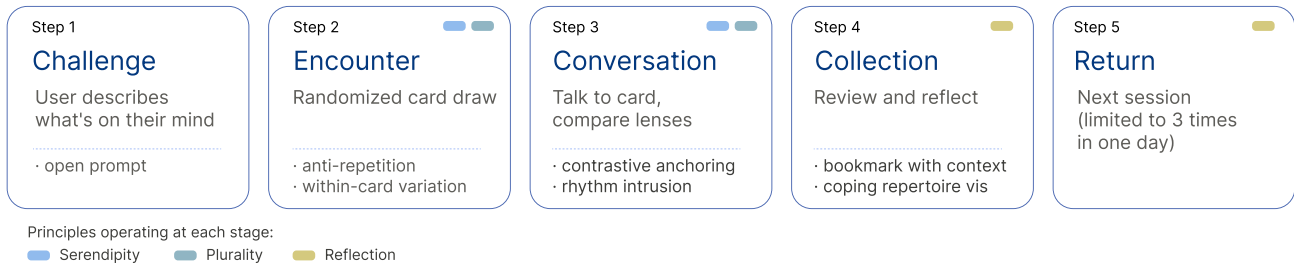


Figure 1: System flow diagram showing the user path and branching mechanics.

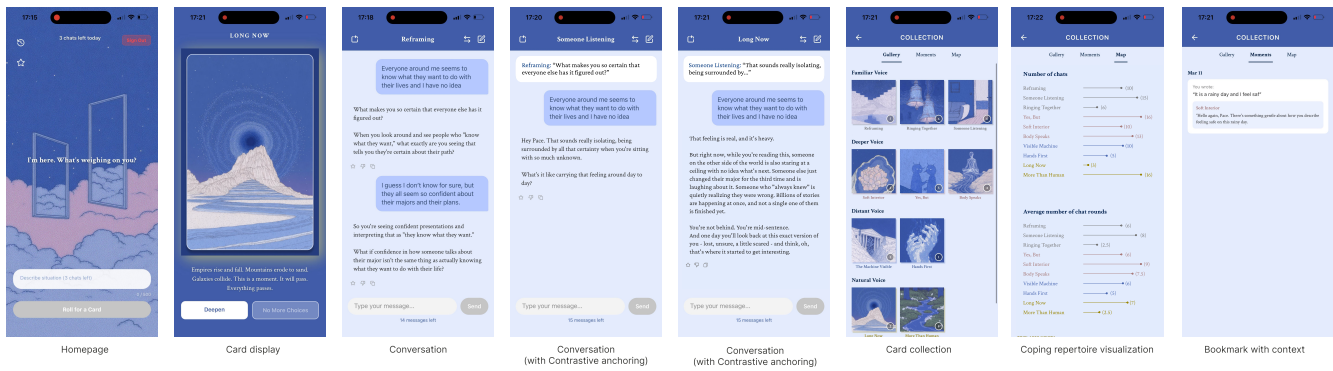


Figure 2: Key interaction screens.

2.3 In-Conversation Mechanisms

Serendipity is further operationalized through two in-conversation mechanisms. *Contrastive anchoring*: when a user draws a second card for the same input, the previous card's core response persists as a translucent reference strip, making frames visible through juxtaposition [17] without requiring action [16]. *Rhythm intrusion*: after a user's third reply, a single sentence from a distant framework briefly appears, targeting the moment of highest engagement where dissonance is most likely to prompt deeper processing [1, 6].

2.4 Collection and Reflection

Users can view their chatting history and save responses to bookmark them; bookmarks automatically capture card type, timestamp, and original input, preserving context essential for retrospective reflection [13]. A *coping repertoire visualization* unlocked after five sessions, descriptively maps engagement across frameworks following personal informatics mirror principles [11].

3 Pilot Findings

A two-week pilot with three participants (average age: 23.3) suggested how users made sense of diverse and sometimes conflicting perspectives.

The absence of a real person made diverse perspectives easier to receive. All participants described the system as “talking to different people.” One noted that knowing the cards are non-human was itself a benefit: “I can’t offend them, and their opinions aren’t really theirs, so I can just listen.”

Card selection shifted from novelty to relationship. During pity selection, one participant initially chose cards by color, but over time shifted to selecting based on prior conversational quality, raising the question of whether familiarity-based selection may eventually narrow the repertoire the system is designed to broaden.

Framework-level reasoning emerged spontaneously. All Participant developed their own vocabulary for contrasting perspectives. One received both a validation-oriented and a temporal-scale response and summarized: “one is macro, one is micro.”

4 Future Work and Expected Contributions

After iterating the system based on the pilot study, we plan to conduct a four-week deployment study to exam how users engage with pluralistic coping support in everyday life. With the system and the planned field study, we anticipate two contributions: (1) empirical findings on how users navigate pluralistic coping support, including preference and resistance patterns, serendipity’s role in expanding coping repertoire, and how engagement evolves over weeks; (2) design implications for wellbeing systems that trade consistency for diversity, including when multi-framework approaches help versus overwhelm.

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