

Title Development and pre-pilot testing of STAMP+CBT: An mHealth app combining pain cognitive behavioral therapy and opioid support for patients with advanced cancer and pain

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Supportive Care in Cancer

Online resource 2 Table listing participant recommended changes to the app and the actions taken based on the feedback

Table 2. Participant recommended changes to the app (Lab and field UAT)

Category	Recommendation	Cohort	Action
General	Participant-initiated events on home screen to change notification times, medications, and SMART goal	Field	Added goals
	Button on home screen to give feedback and message staff	Field	Added
	Panel for participants to set up their profile and configure settings	Field	Infeasible
	Place for participants to take notes	Field	Considering
	Log of completed surveys and content	Field	Removed
	Ability to report other non-cancer diagnoses or conditions	Field	Exploring
	Create separate tabs for videos and games in app menus	Field	No change
	Change title of relaxation exercises in the content library	Field	Changed
App content	Clarify overly scientific or confusing wording	Lab	Changed
	Include reaching out to others as a coping skill	Lab	Added
	Add specific content for different types of cancer (i.e., tools for oral pain)	Lab & Field	Infeasible
	Shorten videos	Field	Changed
	Share personalized content based on GPS location (i.e., sending certain messages when a participant is at a doctor's office)	Field	Infeasible
	Add more content about other participants' experiences	Field	Changed
Games	Clarify game instructions	Lab	Changed
	Use smiley faces and not stars when player answers correctly and make sure written praise is varied	Lab	Emojis infeasible; No change
	Release rather than pop negative thoughts	Lab	Infeasible
	Make the game less childish	Field	No Change
	Create more games		Adding
Notifications	Allow participants to snooze more than once and choose how long they would like to snooze the notification	Field	Addressed with other changes
Surveys	Add friendly language to the end of the survey (e.g., "See you again soon!")	Lab	Added
	Add anchors to survey responses	Lab	Changed
	Add more dosing response options for opioids	Lab	Changed
	Reduce repetition by removing links to educational content in end-of-survey messages (JITAI)	Field	Changed
	Show participants trends in their scores over the past few days so they can evaluate what may have created changes	Field	In Progress
Tracking	Increase the size of radio buttons or change the button type	Field	Infeasible
	Option to track vital signs and health-related behaviors	Field	Infeasible
	Tracking tool for non-opioid pain medications, other prescriptions, and over the counter medications	Field	Considering
	Ability to delete or revise opioid reporting history	Field	Infeasible
	Feature that flags and analyzes bad pain days to alert participants to times their pain may worsen	Field	Infeasible

Add more than one goal and track them individually

Lab &
Field

No Change
