Pain COACH

Automated web-based pain coping skills training that retains therapeutic features of in-person training

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UNC
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Pain Coping Skills Training for People with Osteoarthritis Pain

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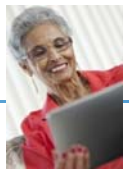
- Pain Coping Skills Training (PCST)
  - Empirically-supported cognitive-behavioral intervention for OA pain developed by Keefe and colleagues
  - Teach adaptive coping skills involving attention diversion, activity patterns, and pain catastrophizing to decrease OA pain and impairment
- Taught in-person by trained therapist over 10-12 wks

Increase access with eHealth?



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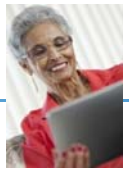
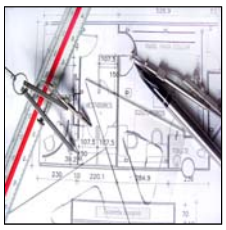


- Mostly older adults, some with low computer experience/access, some living in rural communities
- Focus groups with similar population
  - Enthusiasm for learning pain self-management skills
  - Willing to try computer-based training at home, but some concern about motivation/isolation
  - 15-30 minute sessions considered to be ideal
  - Desire to take breaks during sessions—flexibility was key
  - Liked idea of "personal health coach"(an "average person," not "glamorous" or "robot-like")
  - Wanted feedback on progress and motivational messages, information about other people's experiences

PainCOACH: Internet-based PCST

- Web application accessed with touch-screen tablets
- 8 sessions, completed 1 per week in pre-determined order, lasting about 35-40 min.
- "Virtual coach" to act as therapist/guide/educator—no therapist involvement
- Information presented in audio (coach's voice) with only most important text on screen
- Tunnel information architecture
- Simple navigation



The Challenge

Failing to engage "active ingredients" of in-person cognitive-behavioral interventions

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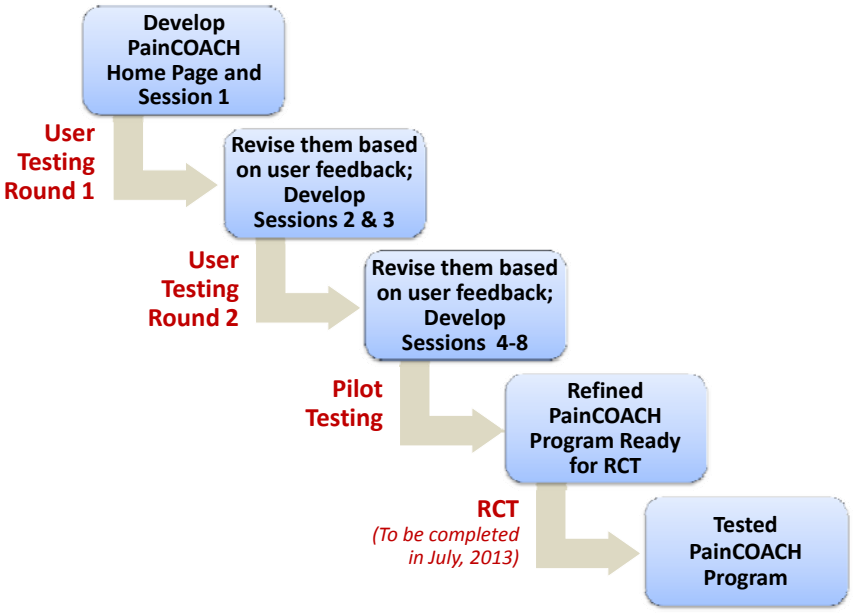
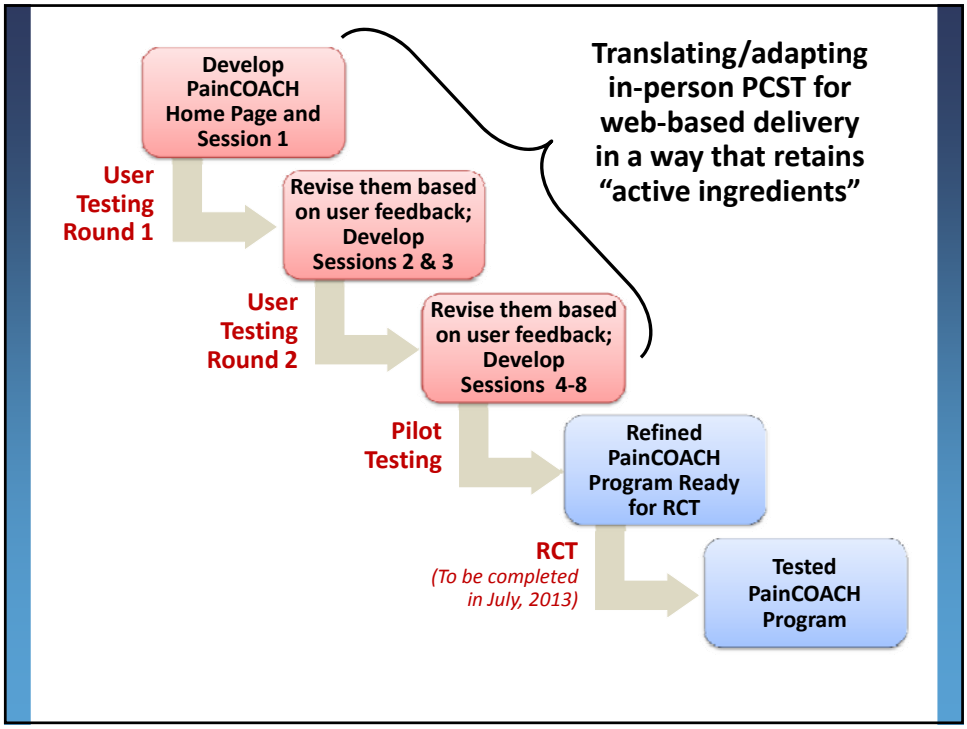
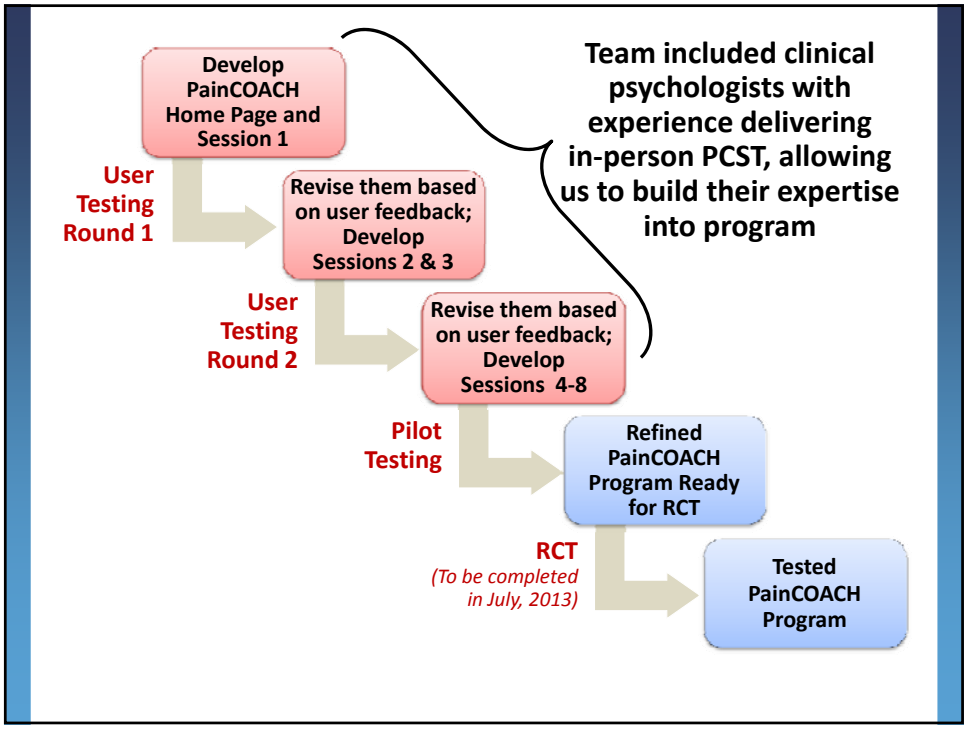
Failure to obtain therapeutic benefits found for in-person PCST

- In-person cognitive-behavioral interventions are highly collaborative, individualized, and require therapeutic alliance between therapist and patient
- PainCOACH automated = no therapist involvement




Develop PainCOACH Home Page and Session 1
User Testing Round 1
Revise them based on user feedback; Develop Sessions 2 & 3
User Testing Round 2
Revise them based on user feedback; Develop Sessions 4-8
Pilot Testing
Refined PainCOACH Program Ready for RCT
RCT
(To be completed in July, 2013)
Tested PainCOACH Program
Translating/adapting in-person PCST for web-based delivery in a way that retains "active ingredients"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Refined PainCOACH Program Ready for RCT
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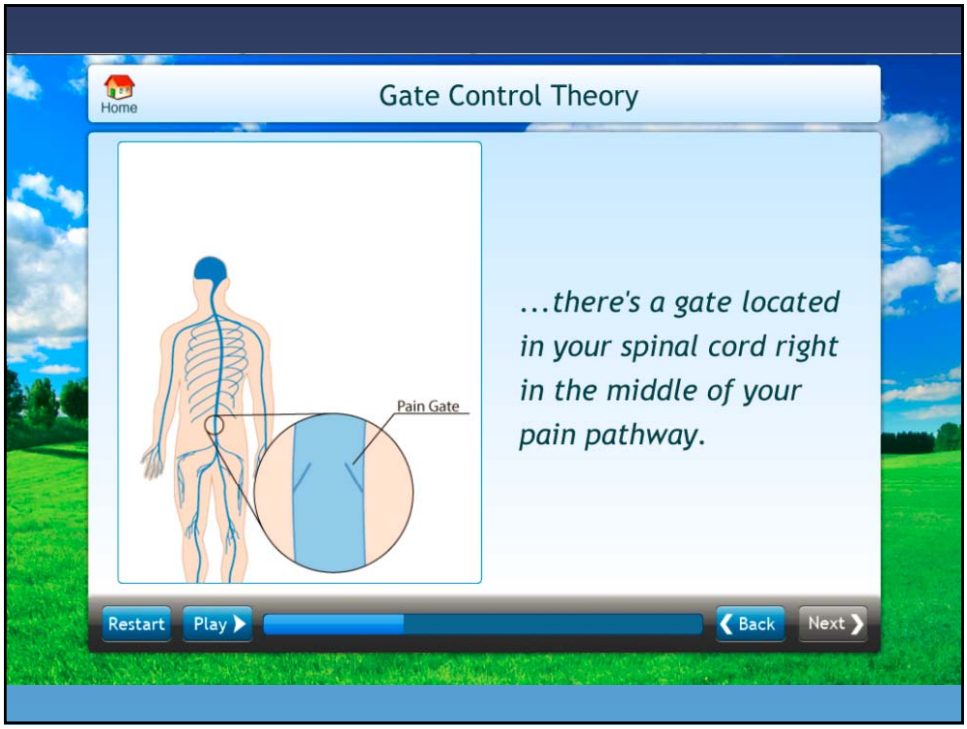
(To be completed in July, 2013)
Tested PainCOACH Program
Team included clinical psychologists with experience delivering in-person PCST, allowing us to build their expertise into program

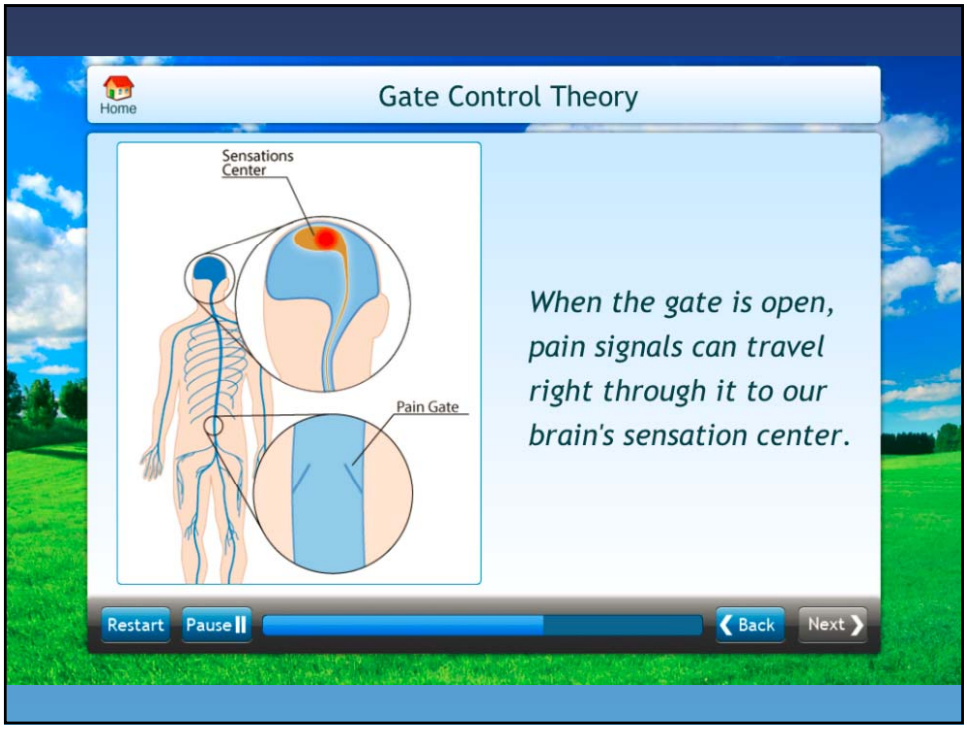
Therapeutic Feature: Education

- **Knowledge about…**
  - How certain types of cognitions, behaviors, and emotions contribute to a health problem
  - Cognitive and behavioral skills that can be learned to influence these cognitions, behaviors, emotions
  - How to enact these skills correctly and use them in daily life to prevent/manage health problem

Therapist provides verbal education along with written materials/graphics to reinforce learning

Multi-media presentation; social modeling; interactive features to assess/remediate learning; review 24/7


Home
Gate Control Theory
Pain Gate
...there's a gate located in your spinal cord right in the middle of your pain pathway.
Restart
Play
Back
Next


Home
Gate Control Theory
Sensations Center
Pain Gate
When the gate is open, pain signals can travel right through it to our brain's sensation center.
Restart
Pause
Back
Next

Therapeutic Feature: Help Applying Skills

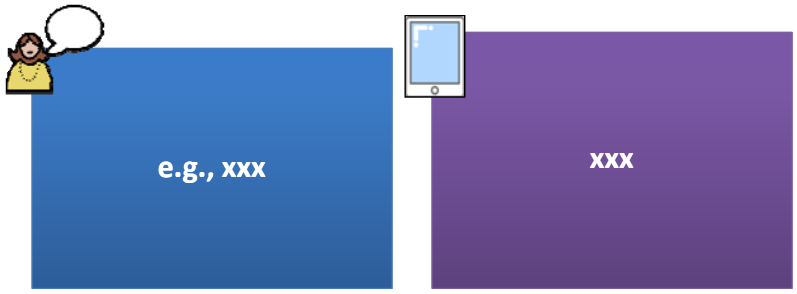
- **Collaborative, personalized training in…**
  - Ability to recognize one's own maladaptive cognitions, behaviors, and emotions
  - Awareness of one's own internal/external triggers
  - Ability to use skills to prevent/reduce maladaptive cognitions, behaviors, and emotions in daily life

e.g., Therapist models skills, guides patient through behavioral rehearsal, observes performance, provides corrective feedback

View peer using skill, interactive exercises leading patient through behavioral rehearsal, identifying/fixing problems with tailored feedback

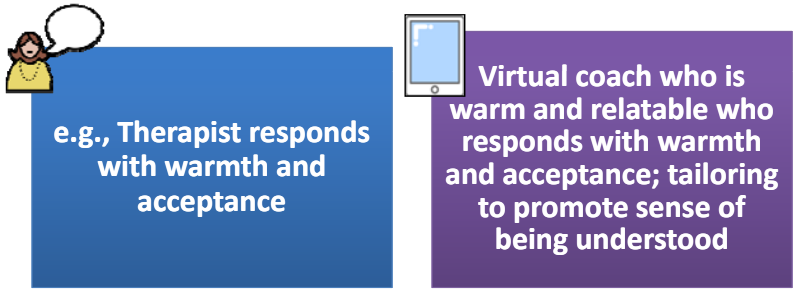
Therapeutic Feature: Enduring Skill Use

- **Collaborative, personalized training in…**
  - Setting goals and monitoring goal attainment
  - Identifying and overcoming likely barriers
  - Anticipating and overcoming future setbacks



Therapeutic Feature: Working Alliance

- **Build trusting, collaborative relationship with therapist…**



Summary

- Many web-based interventions use a cognitive-behavioral approach
- This approach is more than just education
- Adequately capturing "active ingredients" in web-based interventions is critical to realizing benefits of in-person interventions
- Research to develop "best practices" is needed
- Having relevant expertise on development team valuable

Collaborators and Funding

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