Expanding the Scope of Research Using Technology

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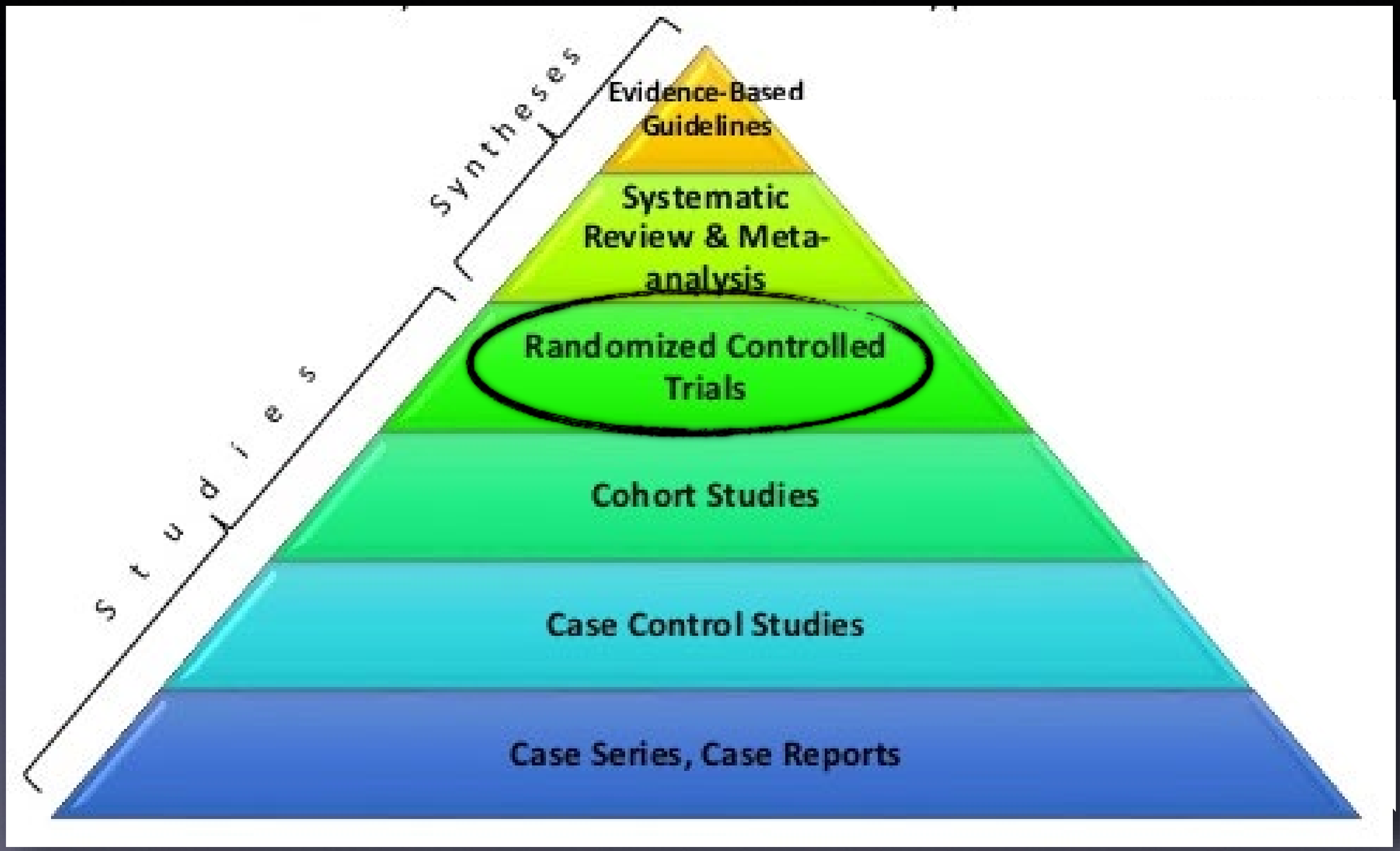
Objectives

- Conceptualize ways to improve research using technology
- Evaluate apps that can be used in research implementation


Syntheses
Studies
Evidence-Based Guidelines
Systematic Review & Meta-analysis
Randomized Controlled Trials
Cohort Studies
Case Control Studies
Case Series, Case Reports

BARRIERS

- Sample size
- IRB
- Recruitment
- Cost
- Data
- Multiple sites

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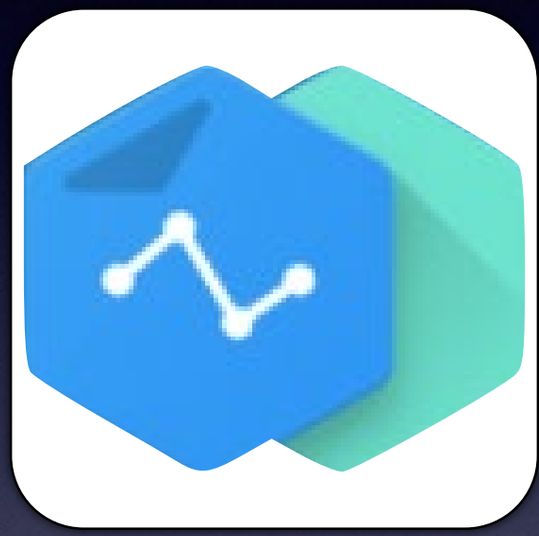
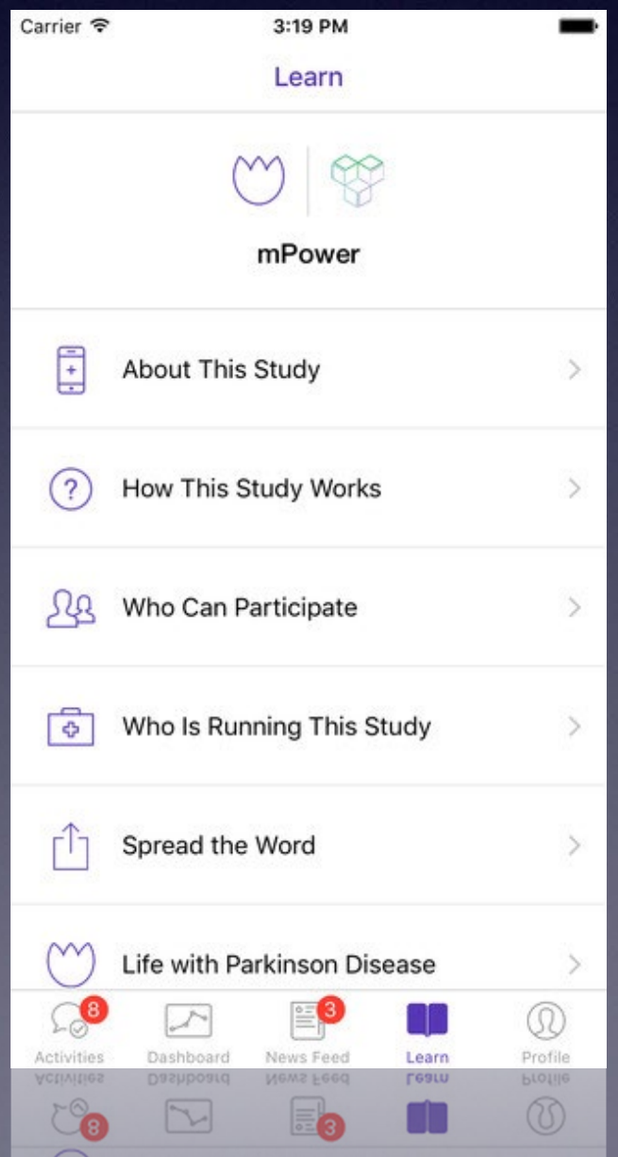
ResearchDroid
Android

Research Kit
iOS

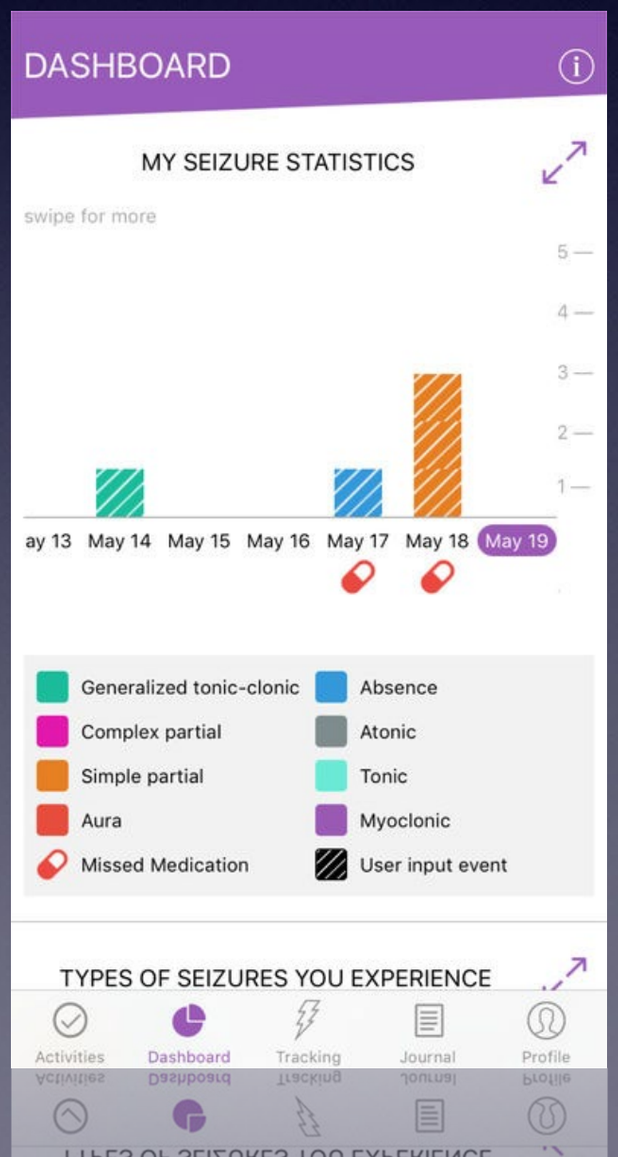


ResearchStack
Android

mPower
Parkinson's Disease



Epi Watch
Seizure Monitoring



3185 reported taking a medication

6989 reported having a disease

48,968 users provided consent

898 contributed data for 5 days

9500 chose to share data

48,000 app downloads

2,317 users filled out multiple surveys

7,593 people completed consent

50,000 app downloads

177 reported seizure triggers

598 participated

1484 seizures tracked

http://blog.appliedinformaticsinc.com/mobile-research-apps-a-look-at-researchkit-app-study-results-from-stanford-johns-hopkins-and-rochester/

Multiple Sclerosis

Gait & Emotion

America Walks

Fever

Team Study Football Player Health

Sleep Health

Postpartum Depression

Peripheral Arterial Disease

Cognitive Function

6th Vital Sign

SUCCESSES

- Large enrollment numbers
- Large scale data
- Correlation of results with existing studies
- Ease of use for consent and data gathering

CHALLENGES

- Drop off in engagement over time
- Self report could be a validity threat
- Study follow up variance
- Physical activity measurement inaccuracies

Potential options

- Communication with participants
- Interaction via social media sites
- Utilization of learning platforms
- Access to study resources

Surveys

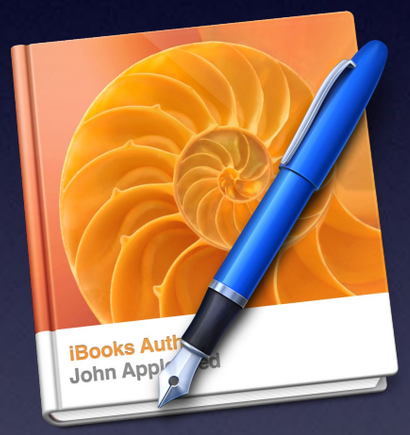
Survey Monkey

RedCap

Google forms

Survey Gizmo

Digital Content



Multitouch Books

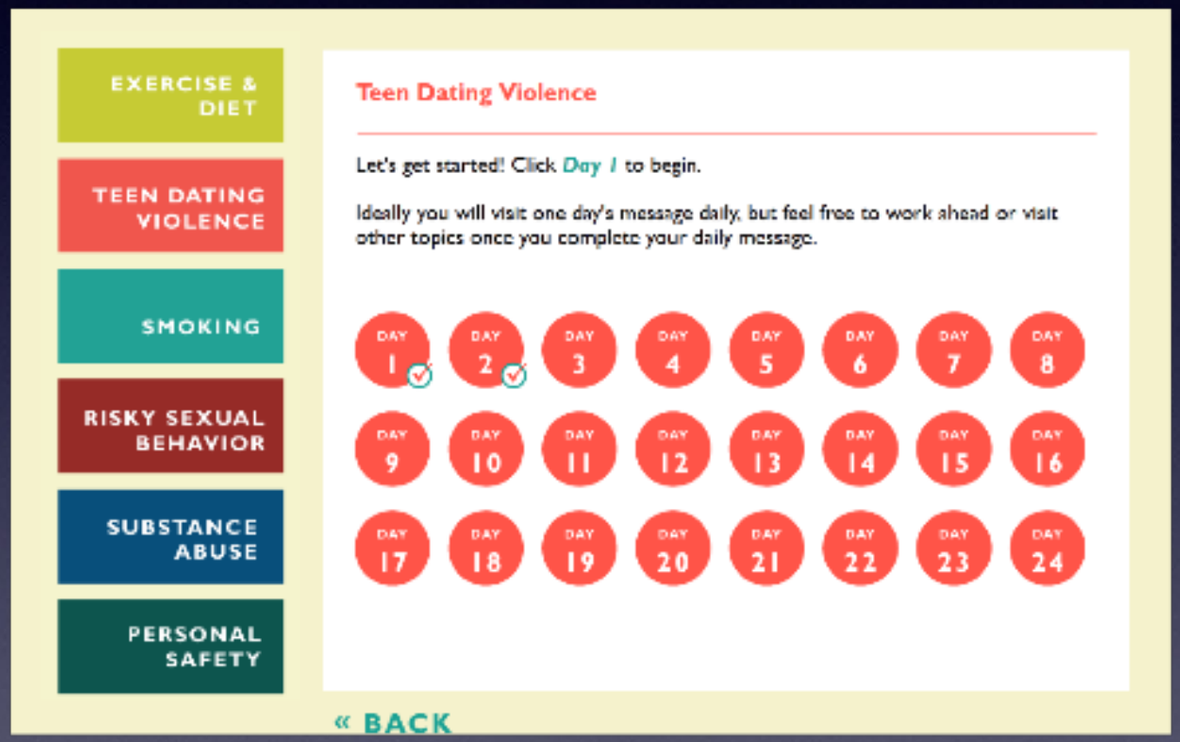
iTunesU Or LMS

iMovie

Podcast

Face to Face Interventions

Web based interventions



Questions

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