Advancing Research using App Based Innovations

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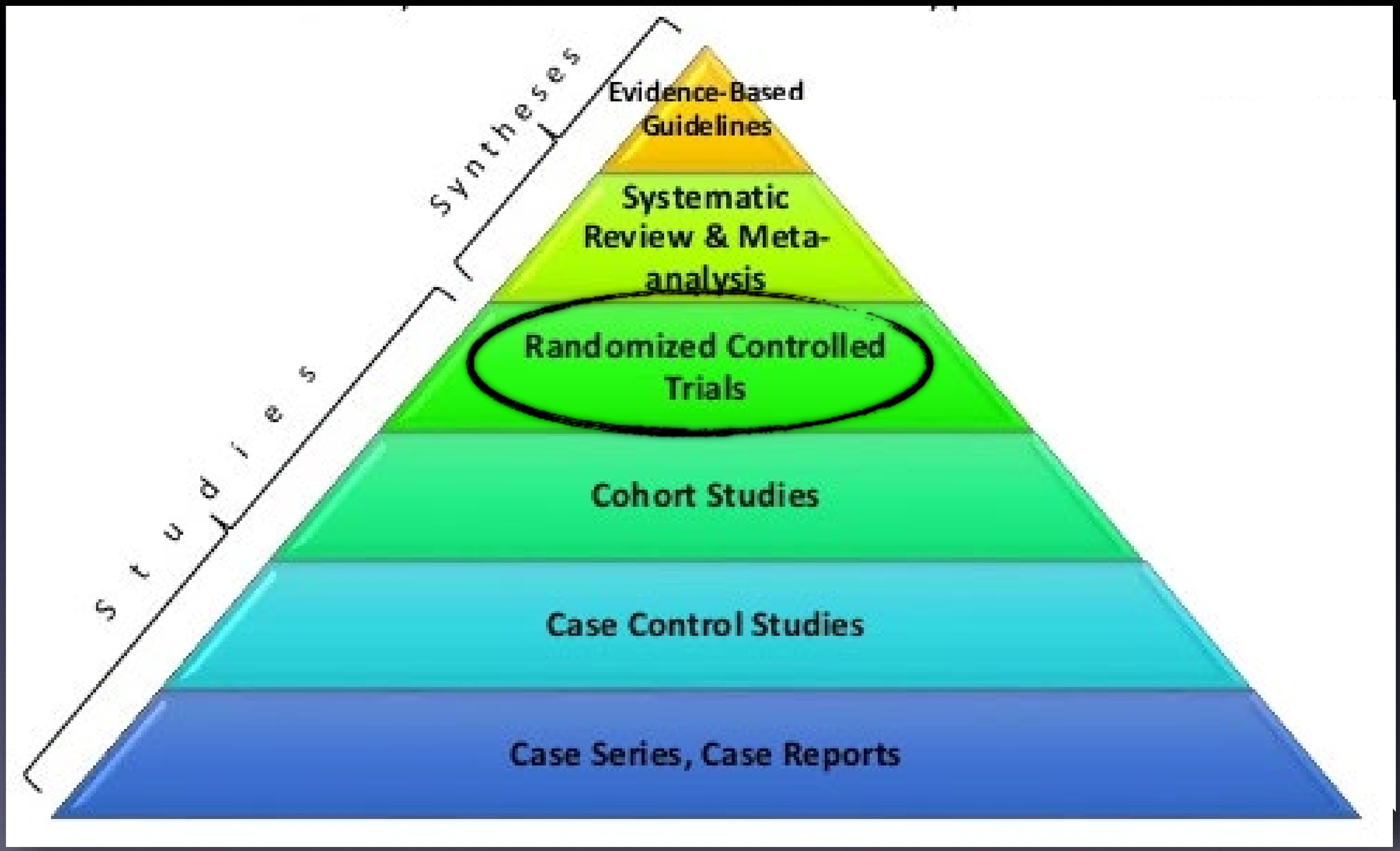
Objectives

- 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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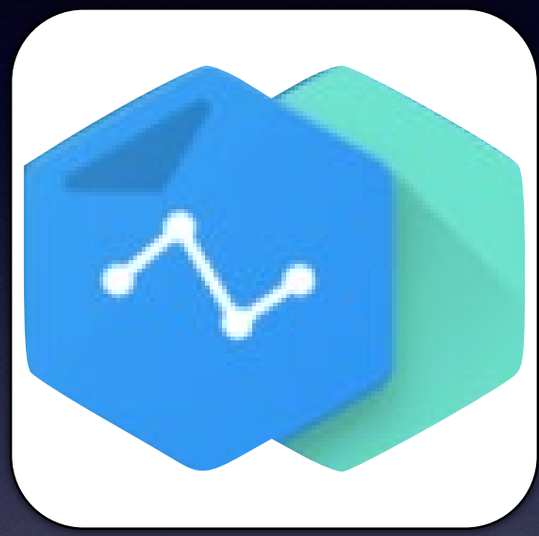
ResearchDroid
Android

Research Kit
iOS

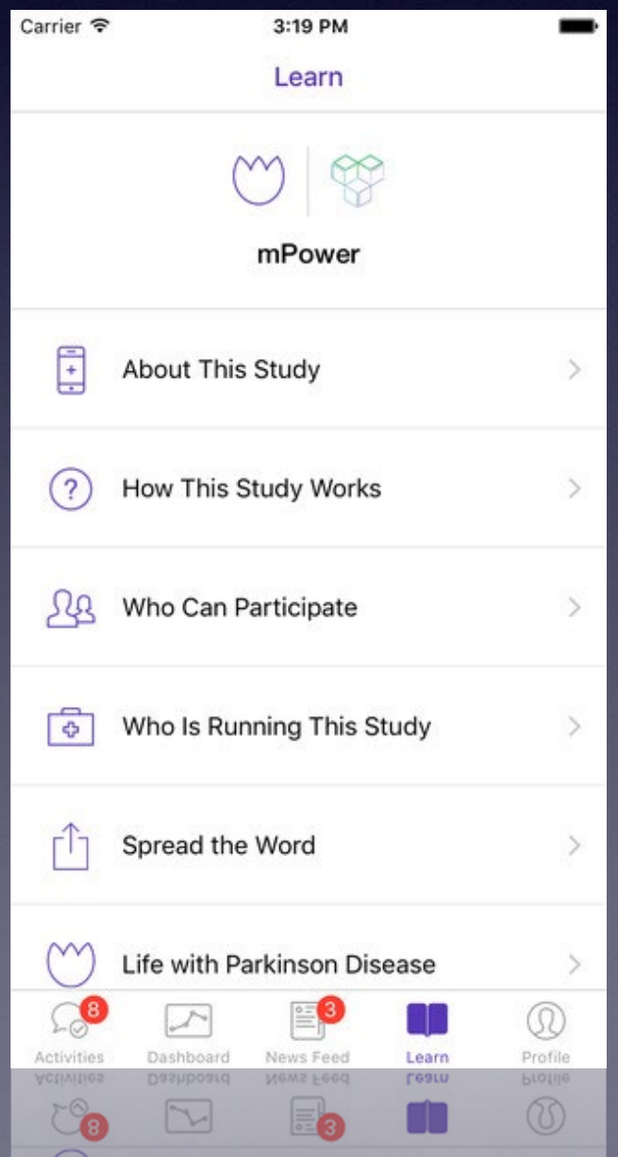


ResearchStack
Android

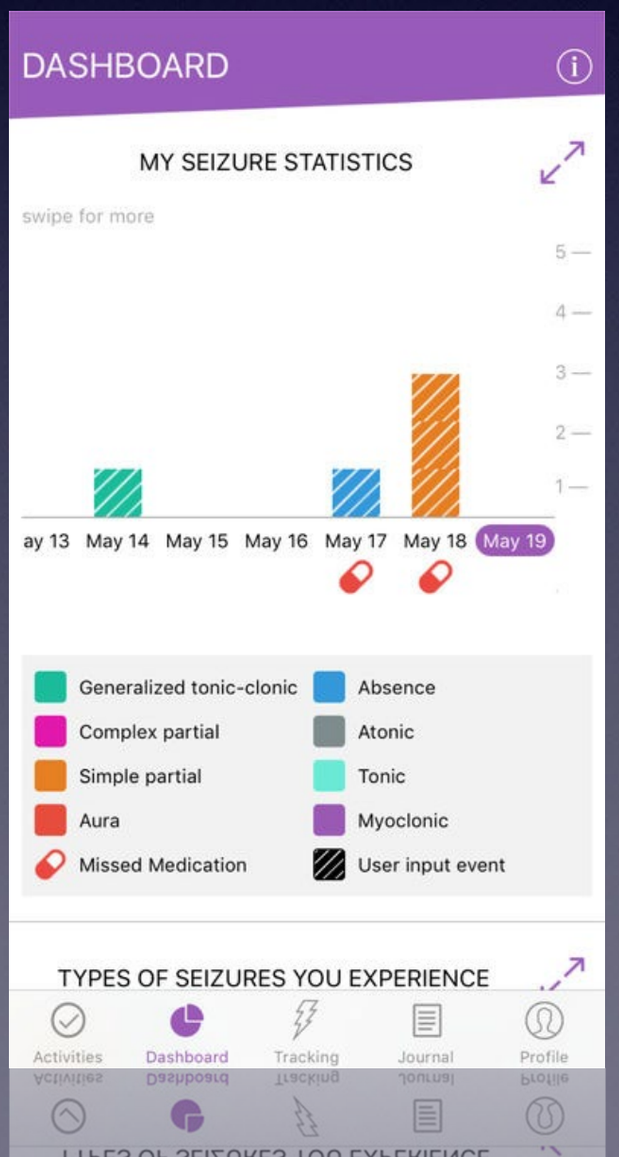
Finder File Edit View Go Window Help
Wed 9:41 AM

9:41 AM
100%
Mail
Calendar
Photos
Camera
Maps
Clock
Weather
News
Wallet
Notes
Reminders
Stocks
Videos
iBooks
iTunes Store
App Store
Home
Health
Settings
Phone
Safari
Messages
Music

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

Cognitive Function

6th Vital Sign

Mole Mapper

Fever

Autism & Beyond

Postpartum Depression

Concussion Tracker

Gait & Emotion

Sleep Health

America Walks

Peripheral Arterial Disease

ResearchKit Apps

PPD ACT
Medical
GET

Sarcoidosis
Medical
GET

EPV
Medical
GET

SleepHealth
Medical
GET

Concussion Tracker
Health & Fitness
GET

Autism & Beyond
Medical
GET

EpiWatch
Health & Fitness
GET

Mole Mapper
Melanoma Study
Health & Fitness
GET

VascTrac
Medical
GET

MyGeneRank
Unlock your Genetic Risk
GET

MS Mosaic
Health & Fitness
GET

WebMD Pregnancy
Health & Fitness
GET

CareKit Apps

Pregnancy Tracker°
Due Date Countdown Calculator
GET
In-App Purchases

One Drop Diabetes Management
Health & Fitness
GET

Glow Baby: Baby & Toddler Log
Newborn milestones & c...
GET
In-App Purchases

The Diary Health App
Improve Personal Health
GET

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

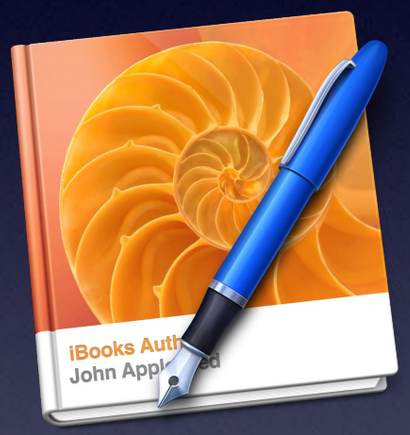
Survey Monkey

RedCap

Google forms

Survey Gizmo

Digital Content



Multitouch Books

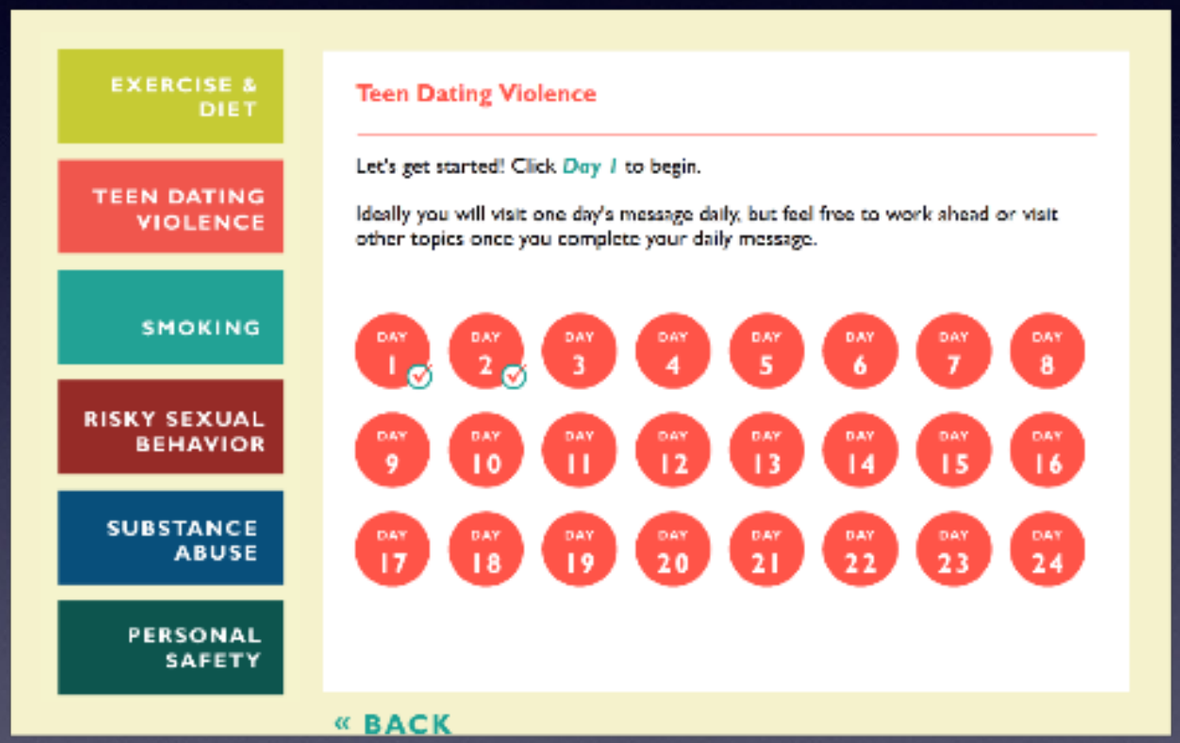
iTunesU Or LMS

iMovie

Podcast

Face to Face Interventions

Web based interventions



Questions

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References

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