

## Mobile apps in the treatment of addictions

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## Disclosure

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## Objectives

- ▶ Introduce mobile health and medical apps to addiction nurses
- ▶ Report an historical overview with key terms
- ▶ Describe specific apps that addiction treatment nurses may find useful in their practices.

## What are apps?

Mobile apps are computer programs meant to work with Information and Communication technology (ICT) devices such as smart phones and tablet computers. They typically perform specific functions on these mobile devices.

## The World of Apps

- ▶ Mobile health and medical apps (MA)
  - three broad and overlapping domains:
    - a) MAs used by consumers (i.e. general population)
    - b) MAs used by healthcare professionals and/or patients
    - c) MAs that
      - a) communicate with and/or control a device
      - b) interface with other ICT

## App Data

Allow data to be stored on the device and/or shared with:

- a provider app
- or a larger organizational medical record system
- or a vendor cloud-based service

## New Technology

- ▶ Healthcare apps for mobile devices are a new set of technologies
  - like any new technology offers many benefits and a number of risks
- ▶ Perhaps the greatest benefit will be
  - the new avenues of communication open to patients and providers and the potential for closer monitoring of chronic conditions

## ▶ Addiction assessment:

- rely on retrospective self-reports
  - prone to distortion and inaccuracy
- ▶ alternative to retrospective reports
  - Ecological momentary assessment (EMA)
    - Patients report—
      - reoccurring and/or moment-to-moment phenomena-
      - mood, anxiety & cravings

- ▶ Apps can assist the patient attend to and have guided prescribed assistance with symptom management

- immediately modifying thoughts through cognitive reappraisal

## Download and Be Aware

Anyone who uses mobile apps in healthcare whether they are a consumer, provider or an organizations

- must understand that the use of mobile medical apps must be approached with caution
- the greatest risk related to mobile apps is the potential for breaches of confidentiality
- healthcare information is not yet protected by regulations such as HIPAA

## Download and Beware

Anyone who uses mobile apps in healthcare whether they are a consumer, provider or an organizations

- free apps often require that you divulge personal information vendors can sell to others
- app vendors are only bound by their Terms of Use and Privacy Polices
- these can change without notice
- No one ever reads them anyway

## Health Insurance portability and Accountability Act

“The HIPAA Rules apply to covered entities and business associates. Individuals, organizations, and agencies that meet the definition of a covered entity under HIPAA must comply with the Rules' requirements to protect the privacy and security of health information and must provide individuals with certain rights with respect to their health information. ...If an entity does not meet the definition of a covered entity or business associate, it does not have to comply with the HIPAA Rules.”

<http://www.hhs.gov/ocr/privacy/hipaa/understanding/coveredentities/index.html>

## HIPAA:

### Does not apply when:

- ▶ Data stored on a patient's or consumer's device
- ▶ Nor does it apply if data is pushed to a cloud-based service
- ▶ Is only as secure as the device itself

### HIPAA does apply:

- ▶ When data is transmitted to a healthcare provider, then the provide must comply with HIPAA if they are a covered entity
- ▶ Health care providers who transmit any health information electronically

## Privacy Concerns

- ▶ Apps have not been regulated by any federal or state agency to protect patient privacy and data security
- ▶ Vendors or app developers can harvest personal data and health data and use it how they wish
- ▶ On 25 Sept 2013 the FDA issued a guidance document stating they will regulate mobile medical apps under their existing authority over medical devices

## Limitations

Not effective if the patient is not as enthused about use as the provider

Other limitations include: the patient's **access**

- Some patients cannot afford "smart phones"
- They require high speed internet connection
- Rural areas may have limited or no signal
- The patient has to commit to daily use of the app.

## Why Use an App?

- ▶ The selling point of app use is instant assessment and ongoing monitoring
- ▶ A few have reminders that prompt the user to stop and complete an assessment
- ▶ While the frequency of the prompt is set by the user, keeping up with the assessments can quickly lead to abandoning use due to a relatively static feedback

**Novelty wears off quickly**

## AVAILABLE APPS

- ▶ Since 2007– 10,000 apps available
- ▶ For chronic illness such as :
  - Diabetes–773
    - Monitor BS, activities and medication
  - Hypertension –39
    - Tracks BP over time
    - Breathe away high blood pressure!, high blood pressure recipes, blood pressure tracker light, sodium one– sodium counter
  - Arthritis – 92
    - Pain diary, WebMD pain coach, mass ague, purine and uric acid food list...

## Apps for addictions:

- ▶ "Smoking cessation" –59 currently
  - more simulate smoking
- ▶ QUIT DRINKING
  - "quit drinking–Hypnosis" – 49.99
  - Few in number
  - More drinking games
- ▶ ADDICTION RECOVERY – 62 apps
  - "anonymous sober chat for alcoholics"– free
  - Hazelden "one day at a time" –4.99

## SMOKING CESSATION APPS

- ▶ Variety of offerings–
  - Self hypnosis “stop smoking forever” –7.99
  - Stop smoking–“Hypnosis to help you quit now”–29.99
- Many of the Apps are not
  - evidence based
  - required to undergo evaluation before recommending

## Phone apps for smoking cessation



## Prevents relapse

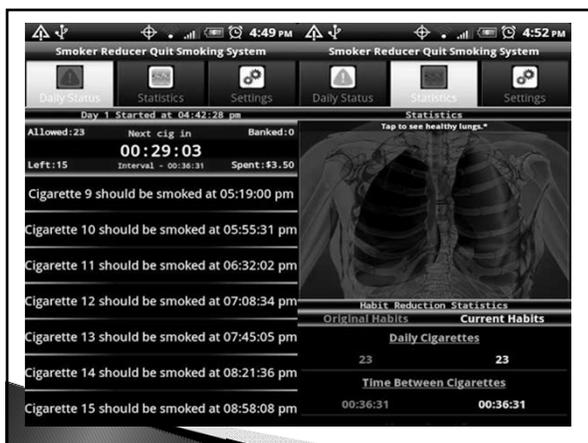
- ▶ Trigger tracker
- ▶ Allows user to enter the “bad habit” they want to break and track progress
  - Helps the user identify places and things that increase use

Cost– free– 29.99

Some are cigarette calculators– how many cigarettes would have been smoked  
How much money would have been spent

## MD Anderson –Quit Med Kit free download

- ▶ For medical personnel
  - Uses the 5 “a” model
  - Evidenced based
    - (Ask, advise, assess, assist and arrange)
    - Uses an logarithm to approach patients with coaching tips
      - “smoking (or smokeless tobacco) is very dangerous and I strongly advise you to quit as soon as possible.”
  - Personalized:
    - “Continuing to smoke will make your nasal allergies worse.”
    - Includes medication options and 1800 numbers



## Why apps to support treatment?

- ▶ Personalized continuing care 24/7
- ▶ Provides immediate feedback and support
- ▶ Access to online support groups
  
- ▶ May appeal to those who's lives revolve around technology

## References

- ▶ McTavish, F., Chih, M., Shah, D., & Gustafson, D. (2013). How patients recovering from alcoholism use a smartphone intervention. *Journal of Dual Diagnosis*, 8(4), 294-304. DOI: 10.1080/15504263.2012.723312
- ▶ Abrams, L., Padmanabhan, N., Thaweethai, L., & Phillips, T. (2011). Iphone apps for smoking cessation: a content analysis. *American Journal of Preventative Medicine*. 40(3) 279-285.