DoD Mobile Health Provider Training
How to Use Health Technologies with Your Patients in Primary Care

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Dr. Julie Kinn is a clinical and research psychologist specializing in the use of health technology to improve patient outcomes. She has worked in the Department of Defense for a decade, and now leads DHA Connected Health Education and Training (https://health.mil/mHealthTraining). Dr. Kinn has unique expertise in User Experience and Usability (UX); podcasting; and statistics and measurement. Under her leadership and direction, DHA Connected Health has produced four innovative podcasts for MHS patients and their care teams, which can be found at https://health.mil/podcasts.
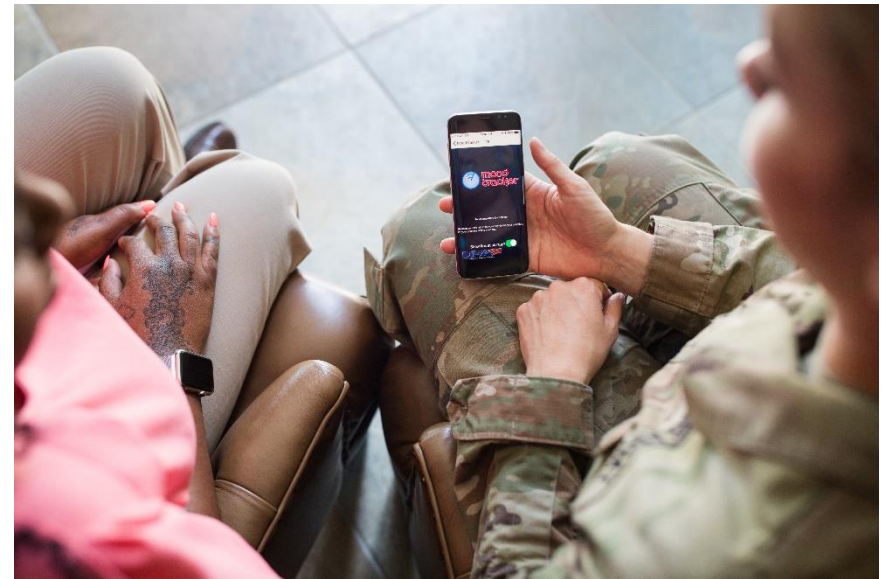
Renee Cavanagh, Psy.D.

Renee Cavanagh graduated from Pacific University with a doctorate in Clinical Psychology with a concentration in Health Psychology. Her clinical experiences have focused on addressing the impact of illnesses and physical health conditions on psychological well-being in medical settings providing care for veterans and civilian populations. While working at the VA, Dr. Cavanagh began integrating VA/DoD mobile apps into the clinical care she provided in a primary care setting. She continued to use these apps in clinical care with civilians in a primary care and outpatient treatment settings. Dr. Cavanagh has been providing contract support to DHA Connected Health since 2017 and has presented workshops on integrating mobile apps into clinical care throughout the world.

Welcome

- ◼ Introductions
- ◼ Housekeeping
  - ❑ Devices and/or apps to download
- ◼ Who is Connected Health?

Disclosures

- Dr. Renee Cavanagh and Dr. Julie Kinn have no relevant financial or non-financial relationships to disclose relating to the content of this activity.

- The views expressed in this presentation are those of the author and do not necessarily reflect the official policy or position of the Department of Defense, nor the U.S. Government.

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Learning Objectives

At the conclusion of this CE workshop, participants should be able to:

1. Describe the value, opportunities, and barriers in provider adoption of mobile health.

2. Explain and apply the core competencies regarding mobile health in clinical care.

3. Illustrate and apply the five steps for clinical integration of mobile health technology.

4. Outline and articulate security and privacy concerns and solutions related to using technology in clinical practice.

5. Identify and articulate cultural concerns and considerations in clinical practice.

Today's Agenda

**Agenda**

Image by: Jan Kahanek, Unsplash.com

- Welcome and Introductions
- What is Mobile Health and Why it is Important?
- Understanding Benefits and Barriers for Integrating Mobile Health Into Clinical Practice
- Understanding Best Practices for Integrating Mobile Health Into Clinical Practice
- Security and Privacy Issues When Using Mobile Health in Clinical Practice
- Cultural Considerations When Using Mobile Health in Clinical Practice
- Mobile Health for Support of Evidence Based Treatments for Stress
- CE Evaluations and Sign out

What Was the Last App You Used?
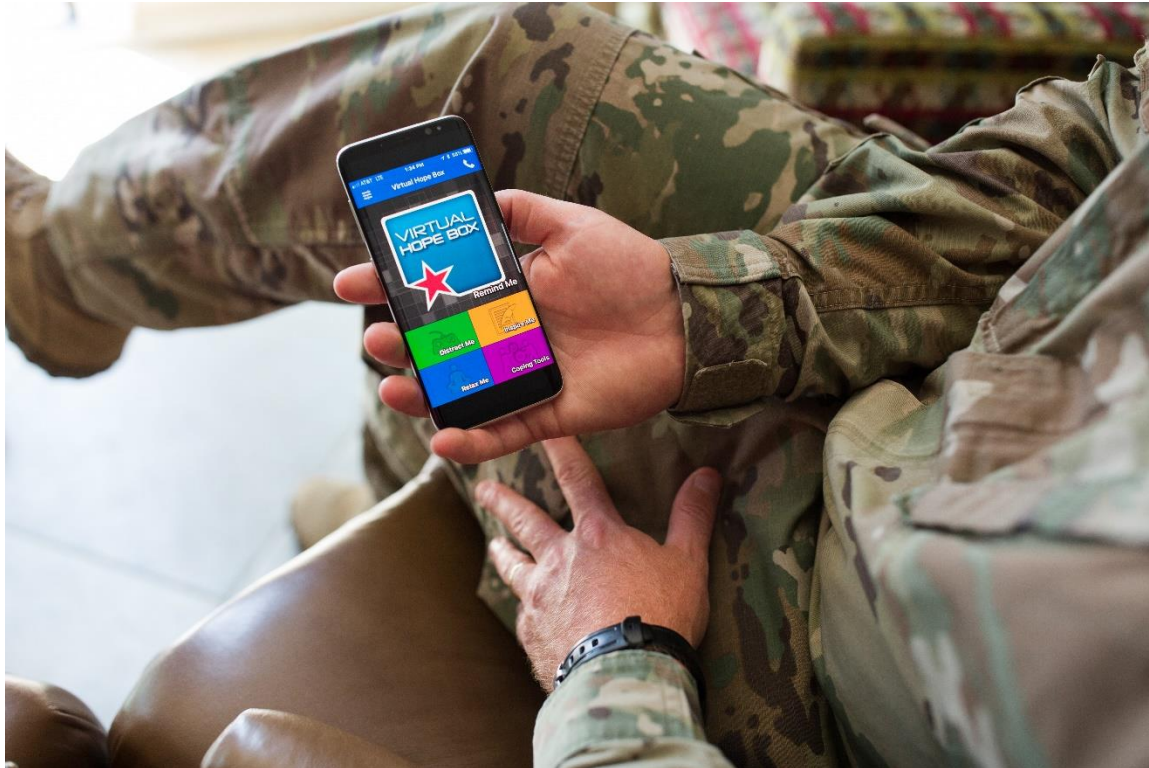
Source: Defense Health Agency

What is Mobile Health?
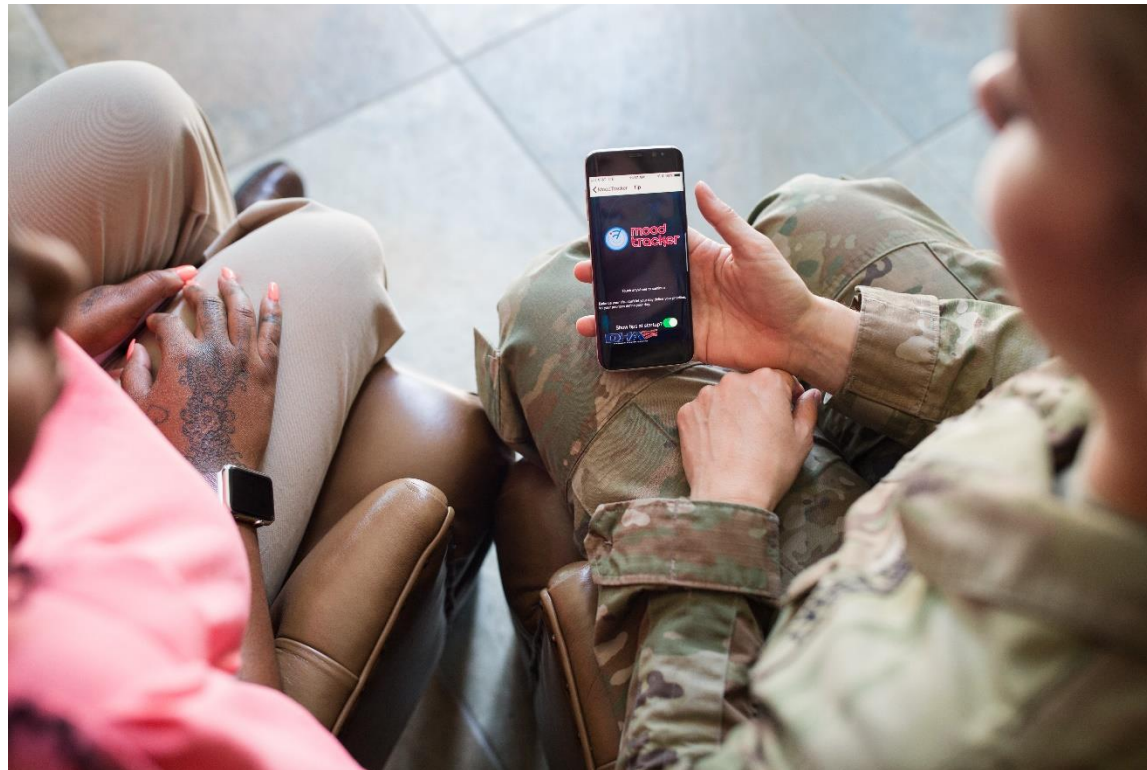
Source: Defense Health Agency

Polling Question #1

- How often have you used Mobile Health (mHealth) when treating service members (SM), their family members or veterans?
    - ❑ Very frequently
    - ❑ Frequently
    - ❑ Occasionally
    - ❑ Rarely
    - ❑ Never

Understanding Benefits and Barriers for Integrating Mobile Health Into Clinical Practice

Service Member and Provider Tech Use Comparison

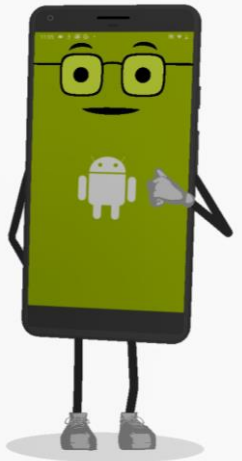

Service Members

89% own a smartphone

58% own an Android

Majority (72%) were age 30 and below

Providers

96.5% own a smartphone

64% own an iPhone

Majority (73%) were age 34 and older

Edwards-Stewart, A., et.al. (2016)
Armstrong, C.M., et.al.. (2018).

Value of Mobile Health

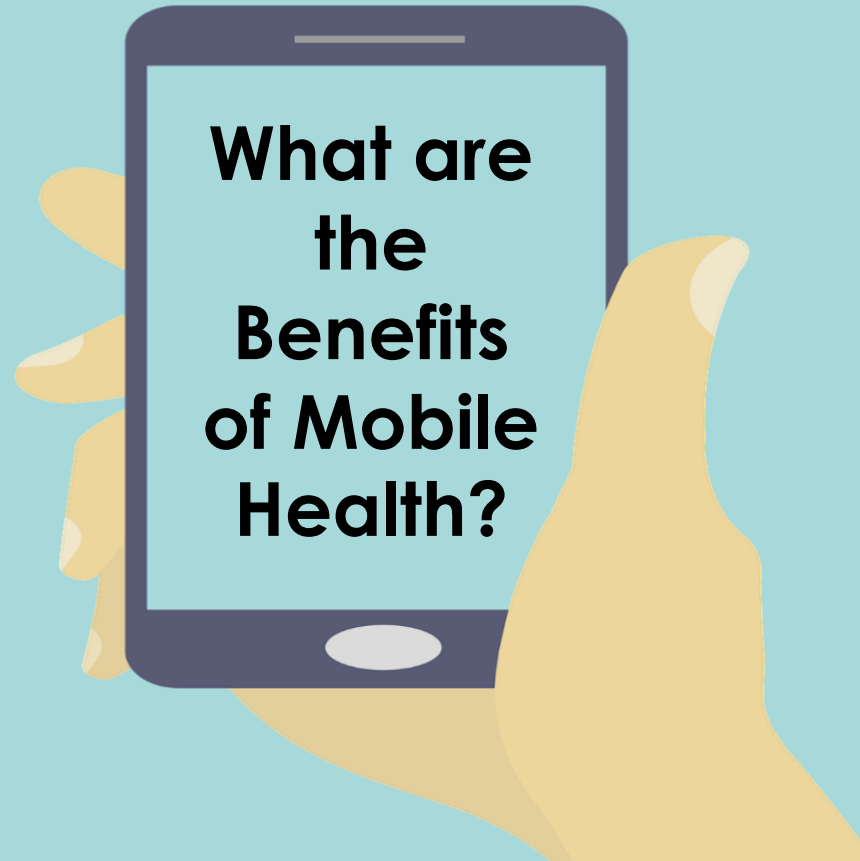What are the Benefits of Mobile Health?

Image by: Tero Vesalainen, Pixabay.com

Research Evidence of the Benefits of Mobile Health in Clinical Care (1 of 2)

Can effectively supplement medical care

Overcome barriers to accessing care

Increase compliance/engagement

Coulon, S.M., et.al (2016). Free, C., et.al. (2013). Donker, T., et.al (2013). Prentice, J. L., & Dobson, K. S. (2014). Dale, O., et.al. (2007). Dennison, L., et.al. (2013). Gaggioli, A., & Riva, G. (2013). Reger, G. M., (2013).

Research Evidence of the Benefits of Mobile Health in Clinical Care (2 of 2)

Increase efficiency of care

Facilitates case management for geographically dispersed patients

Extend health care beyond face-to-face visits

Ventola C. L. (2014). Donker, T., (2013). Poropatich, R., et.al. (2013). Poropatich, R., et.al. (2014). Luxton, D. D., et.al. (2011). Bush, N. E., (2013).

Are Clinicians Using Mobile Health?

75.9% of providers use mobile devices in their practice

69.3% for staff communication

51.1% for patient communication

41.0% for patient secure messaging

38.5% for patient portal

31.6% worried about HIPPA

21.0% don't have the time

How Digital Tools Improve Primary Care

Increase patient adherence (75%)

Reduce stress and burnout (66%)

Increase patient safety (80%)

Improve physician-patient relationship (73%)

Improve diagnostic ability (79%)

Digital Health Study - Physicians' motivations and requirements for adopting digital clinical tools. (n.d.).

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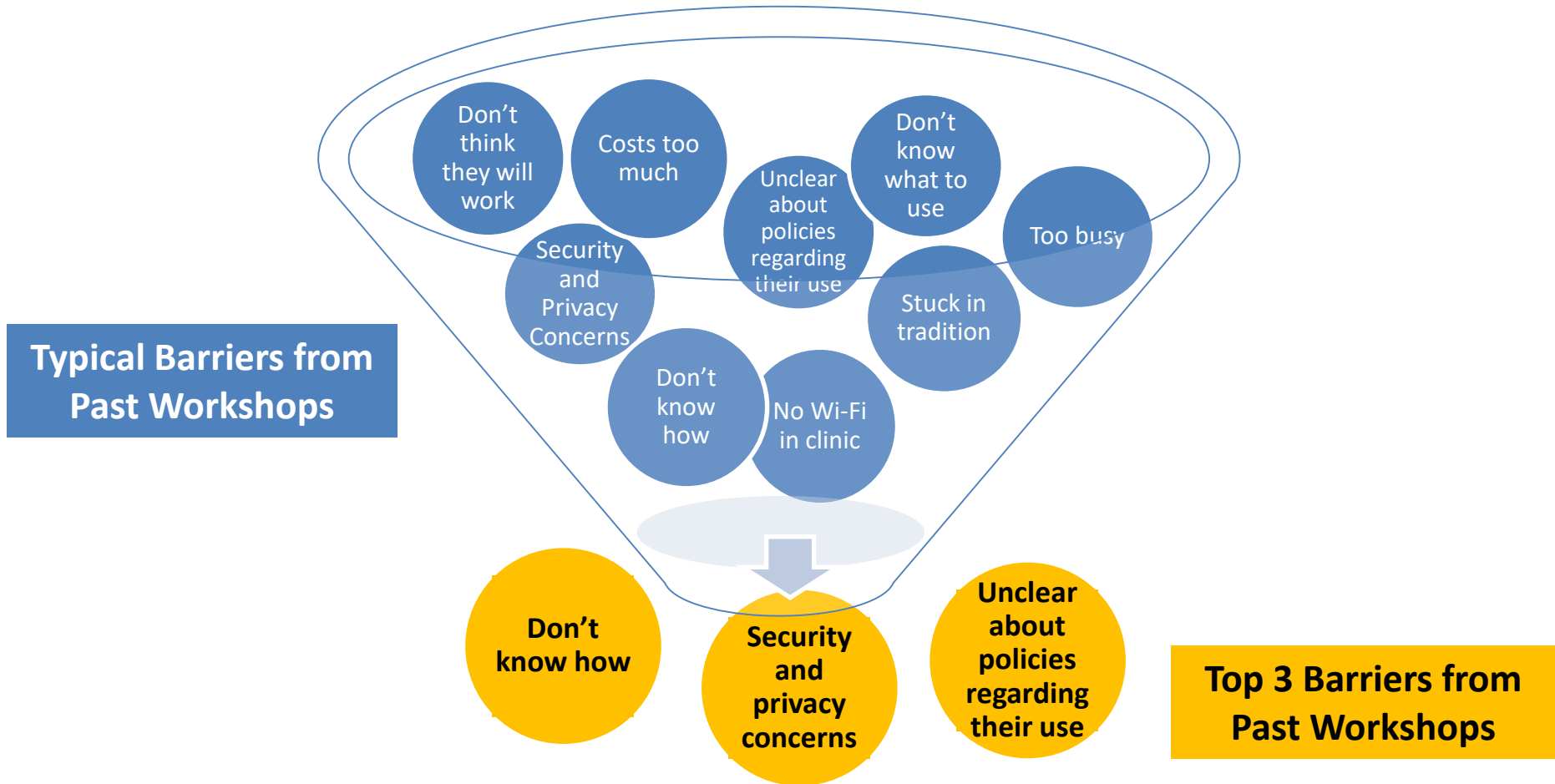# What are the Potential Barriers Impacting Provider Adoption?

Image by: Jan Persiel, Flickr.com

Polling Question #2

■ Based on your experiences what is the biggest barrier to utilizing mHealth in **your** practice?

 ❑ Technology issues at workplace

 ❑ Security and privacy concerns

 ❑ Lack of knowledge on use of apps

 ❑ Lack of time

 ❑ Lack of confidence in effectiveness of apps

 ❑ Unsure of policies regarding use of apps

 ❑ Other

Behavior Health Potential Barriers

Typical Barriers from Past Workshops

- Don't think they will work
- Costs too much
- Unclear about policies regarding their use
- Don't know what to use
- Too busy
- Security and Privacy Concerns
- Stuck in tradition
- Don't know how
- No Wi-Fi in clinic

Top 3 Barriers from Past Workshops

- Don't know how
- Security and privacy concerns
- Unclear about policies regarding their use

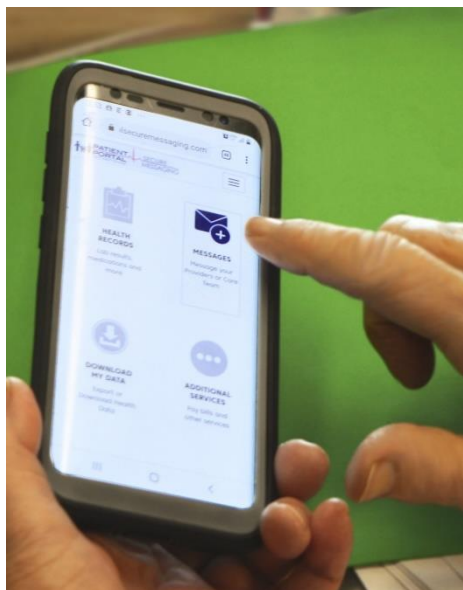# Evidence Regarding Barriers to Clinician Adoption

Image by: Patricia Deal, U.S. Army

Behavioral health provider adoption lags behind patient adoption

Current technology structures at many treatment facilities may not fully support

Gagnon, M. P., et.al. (2015). Armstrong, C. M., (2018).

Evidence Regarding Barriers to Clinician Adoption

What clinicians want from mobile health

- Fit within existing IT systems
- Data privacy assured by experts
- Linked to electronic health record (EHR)
- Procedures for billing/reimbursement

Digital Health Study - Physicians' motivations and requirements for adopting digital clinical tools. (n.d.).

Benefits and Barriers - Key Takeaways

1

Evidence Based

Understand the research showing benefits of mobile health in clinical care

Understand the barriers inherent in clinical adoption of mobile health

Understanding Best Practices for Integrating Mobile Health Into Clinical Practice

Core Competencies for Mobile Health in Clinical Care

1. **Evidence Based**
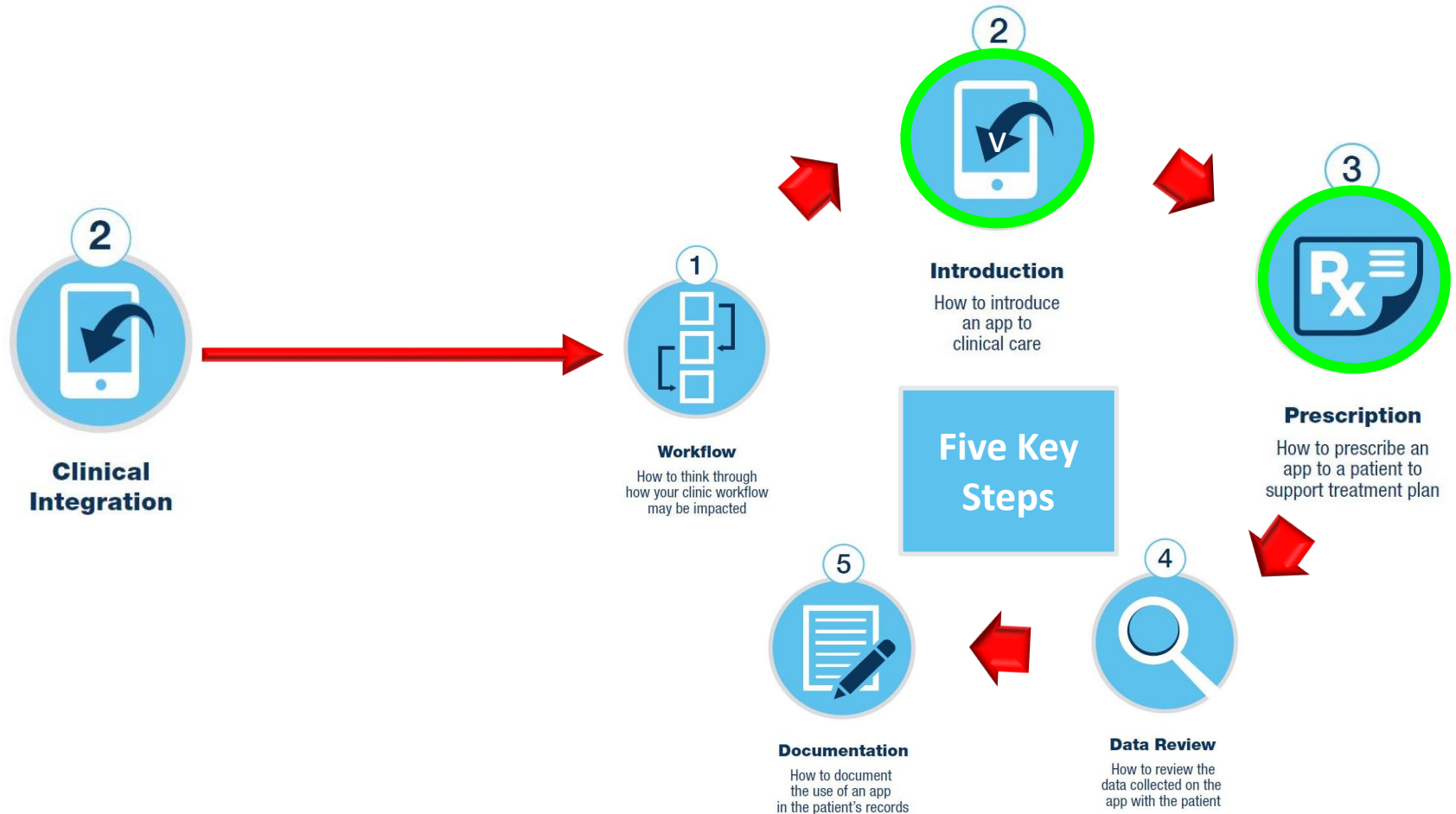2. **Clinical Integration**
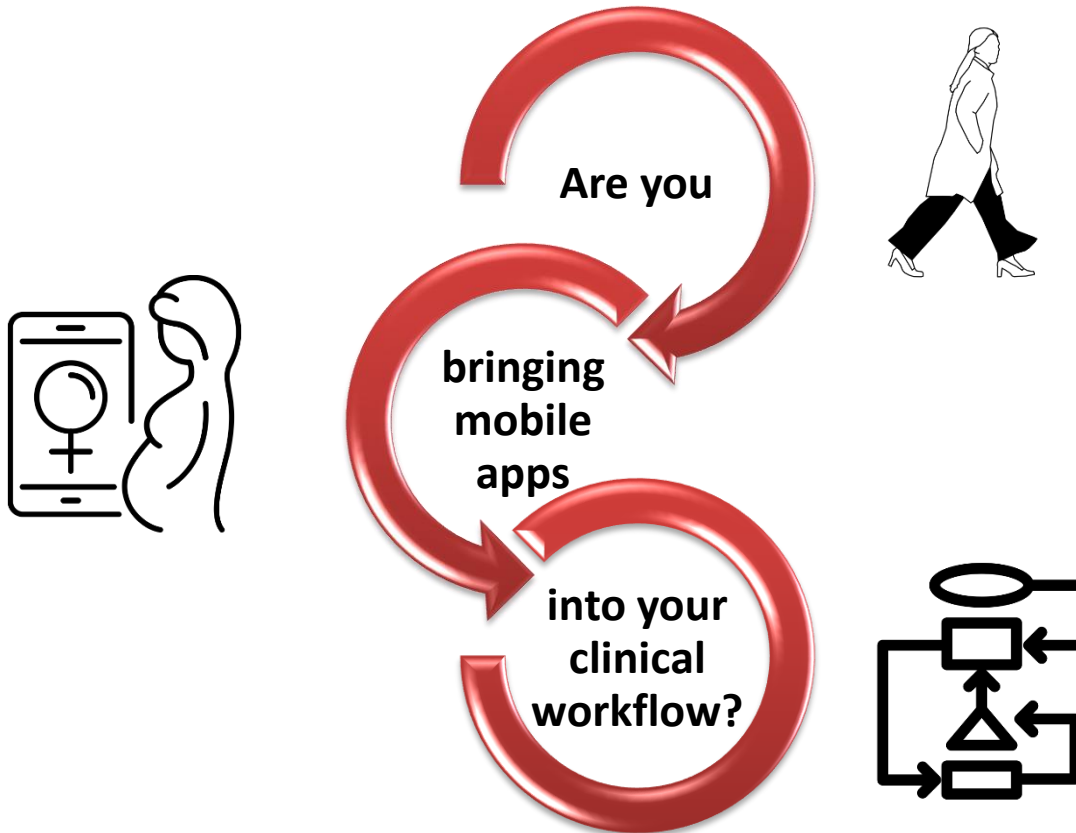3. **Security & Privacy**
4. **Ethical Issues**
5. **Cultural Considerations**

Armstrong, C. M., et.al. (2017).

Mobile Health Clinical Integration

Five Key Steps

Clinical Integration

1. **Workflow** — How to think through how your clinic workflow may be impacted

2. **Introduction** — How to introduce an app to clinical care

3. **Prescription** — How to prescribe an app to a patient to support treatment plan

4. **Data Review** — How to review the data collected on the app with the patient

5. **Documentation** — How to document the use of an app in the patient's records

Armstrong, C. M., et.al. (2017).

Bringing Apps into Clinical Workflow

Are you

bringing mobile apps

into your clinical workflow?

Polling Question #3

■ Does your clinic have a process for incorporating the use of mHealth into its workflow?

❑ Yes

❑ No

❑ Not sure

How Would You Bring Apps into Your Clinical Workflow?

All clinics are unique so think ahead before integrating mobile health

Does workflow support patient access to and use of clinical support tools?

What questions should you consider when bringing apps into your clinical workflow?

Images by: Petty Officer 3rd Class Cameron T. Pinske, U.S. Navy; Reynaldo Ramon, U.S. Army; Lori Newman, U.S. Army

Best Practices - Key Takeaways

1. Evidence Based
2. Clinical Integration
3. Security & Privacy
4. Ethical Issues
5. Cultural Considerations

Understand the five Core Competencies of Mobile Health

Understand the five steps of Clinical Integration

Security and Privacy Issues When Using Mobile Health in Clinical Practice
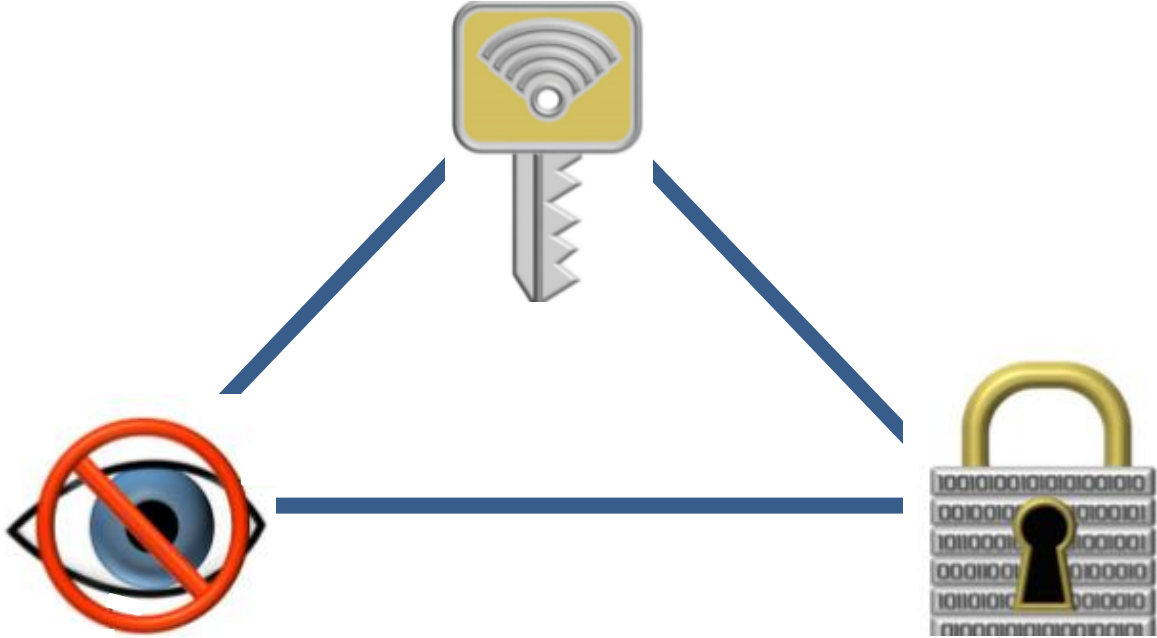
Key Security and Privacy Issues

Trusted Source

Permissions

Passcode Protection
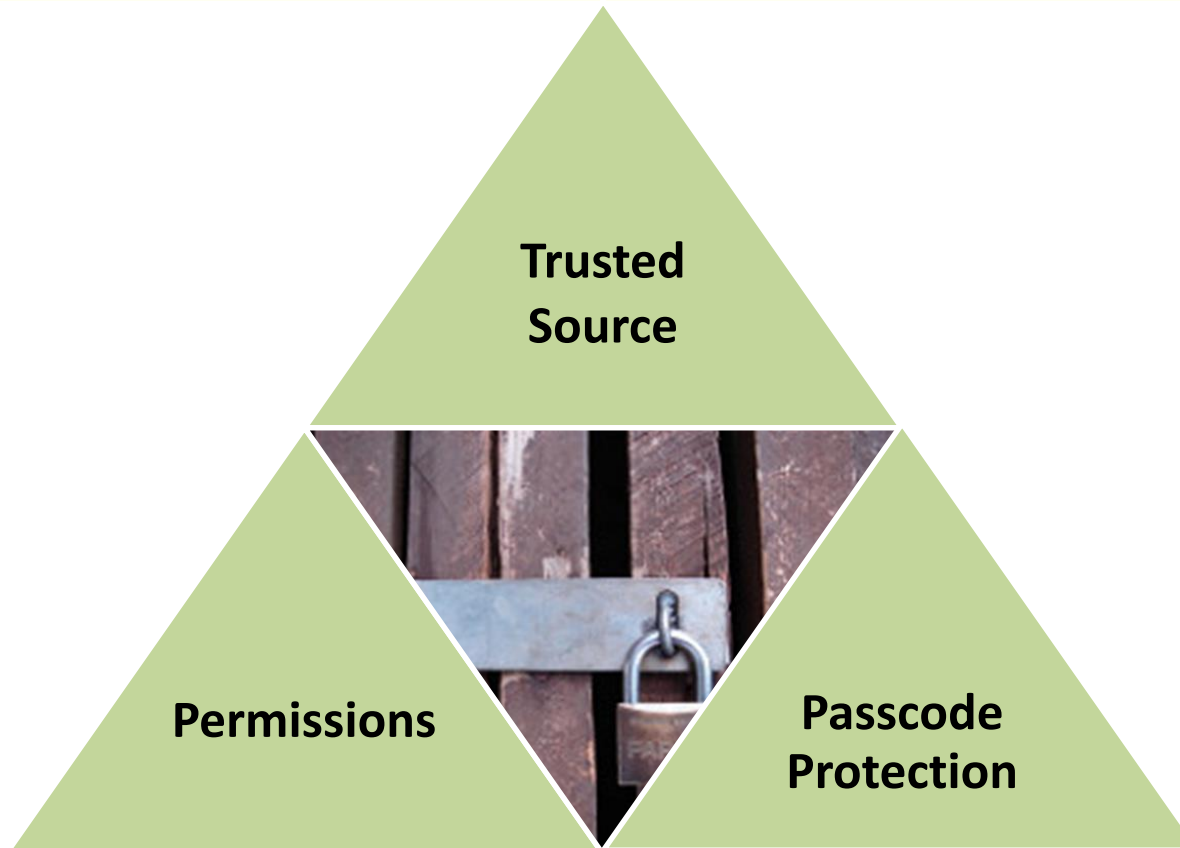
Image by: Steven Taschuk, Flickr.com

Security and Privacy for Patients and Providers

Wi-Fi Security

Mobile Device Privacy

Data Security

How can you protect and secure health information when using a mobile device? | *Providers & professionals | HealthIT.gov*. (2013, January 24).

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Security and Privacy - Key Takeaways

- **For all apps:**
  - ❑ Only download apps from trusted sources
  - ❑ Always use a passcode
  - ❑ Pay attention to permissions
  - ❑ Know how data will be shared
  - ❑ Know how to protect data on mobile device
- **For DOD/VA apps:**
  - ❑ DOD/VA have no access to the data
  - ❑ User has control over data on the encrypted app

Image by: George Becker, www.pexels.com

Cultural Considerations When Using Mobile Health in Clinical Practice

Assessing Patient Readiness to Use Mobile Health

- Meet your patients where they are at by:
  - Assessing patient use and familiarity with apps
  - Understanding cultural considerations

Cultural Considerations

Image by: SPC Nathan Thome, U.S. Army

Understand the cultural variables

Identify your own potential biases

Use a framework to better understand how you experience these differences

Increase cultural competency

Determine your patient's relationship with technology (meet them where they are at)

Cultural Variables

Military

Socioeconomic status

Geographic location

Access to technology

Technology

Ethnic, racial, linguistic and culturally diverse populations
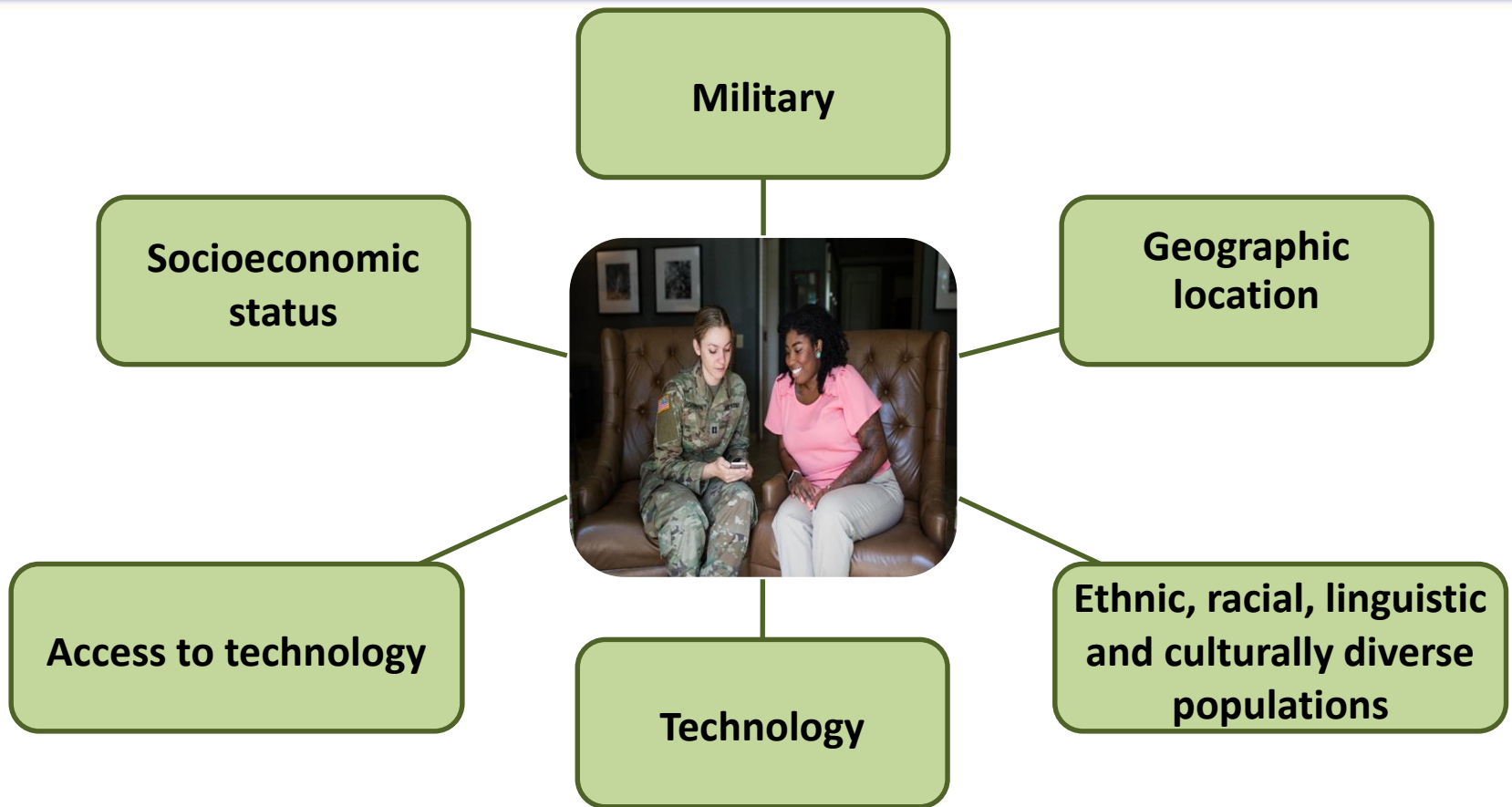
Technology Biases

- What biases do you have regarding technology?
  - ❑ Native vs. Immigrant
- How about with technology in clinical care?
- How might these biases support/inhibit delivery of care?

Cultural Considerations - Key Takeaways

Understand the cultural considerations associated with technology use

Understand your biases about technology

Cultural Considerations

Ethical Dilemmas with Technology

Image by: Lance Cheung, USDA

Mobile Health in Support of Evidence-Based Treatments for Stress (COVID-19 Pandemic)

Polling Question #4

- How often do you engage with service members, their family members, or Veterans about stress-related concerns?
  - ❑ Very frequently
  - ❑ Frequently
  - ❑ Occasionally
  - ❑ Rarely
  - ❑ Never

Some Causes of Stress
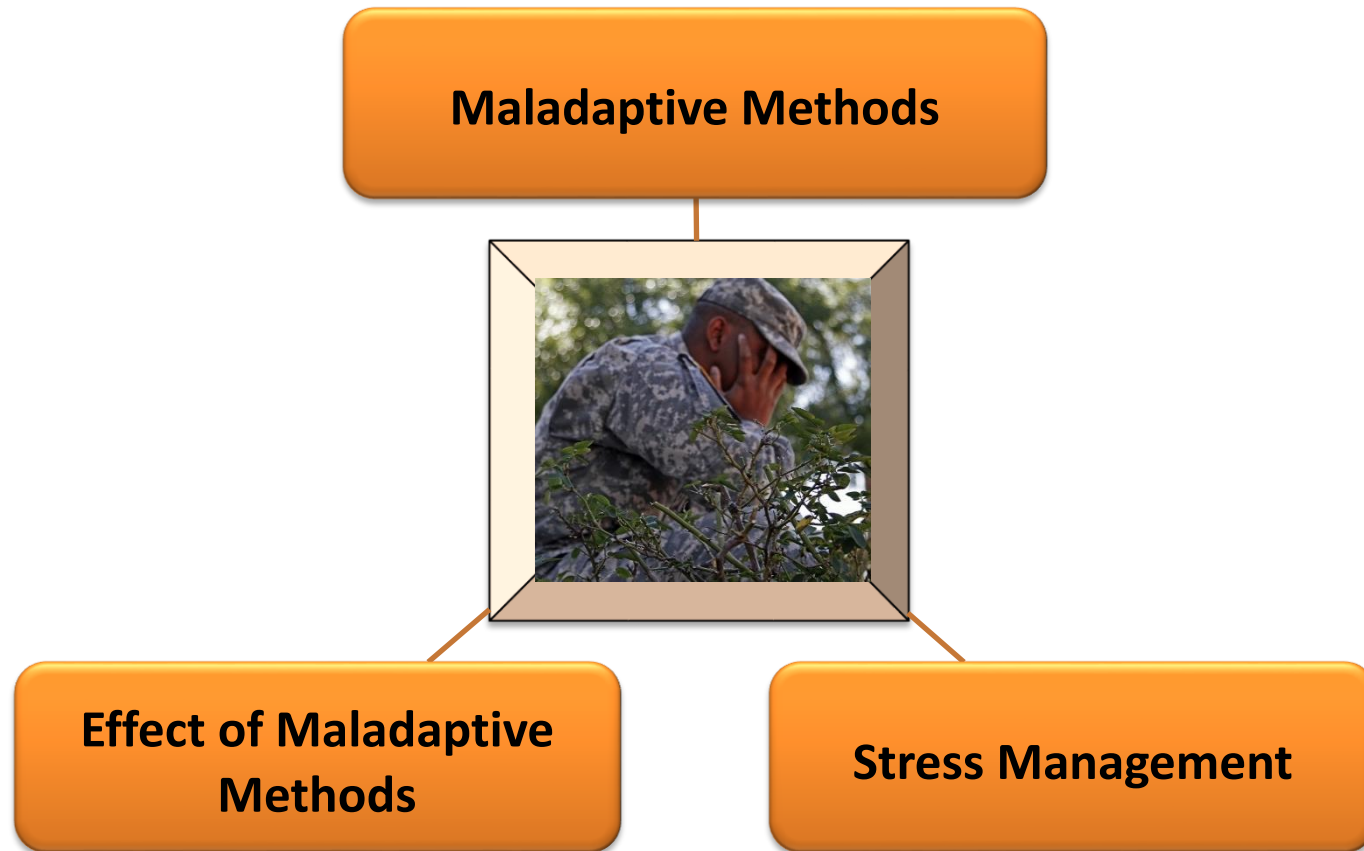
Work

Financial
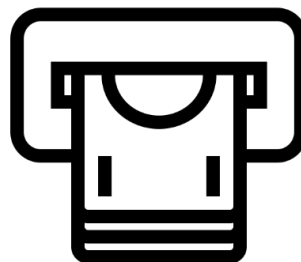
COVID-19

Emotional

Family
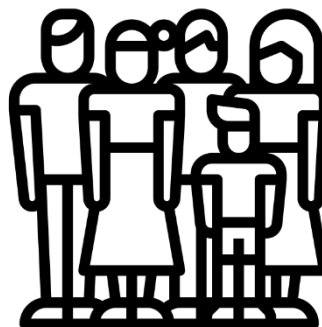
Chronic Pain

Coping with Stress

Maladaptive Methods

Effect of Maladaptive Methods

Stress Management

Image by: Pfc. Paige Behringer, U.S. Army

Effects of Reducing Stress

On Mind

On Mission

On Body

On Relation-ships

Image by: Jeremy Thomas, Unsplash.com

Stress Mobile App: Funnel

Search of mobile apps for "Stress"

Initially found 284

Reduced to 93

Then, 69

To 47

31

Reviewed public description, excluded 191 apps which did not pertain to stress and incurred cost

Excluded 24 apps that focused on education on stress only

Removed 22 apps that provided meditation for stress management

Removed 16 stress assessment and music generating apps

Prioritized Top 10 apps
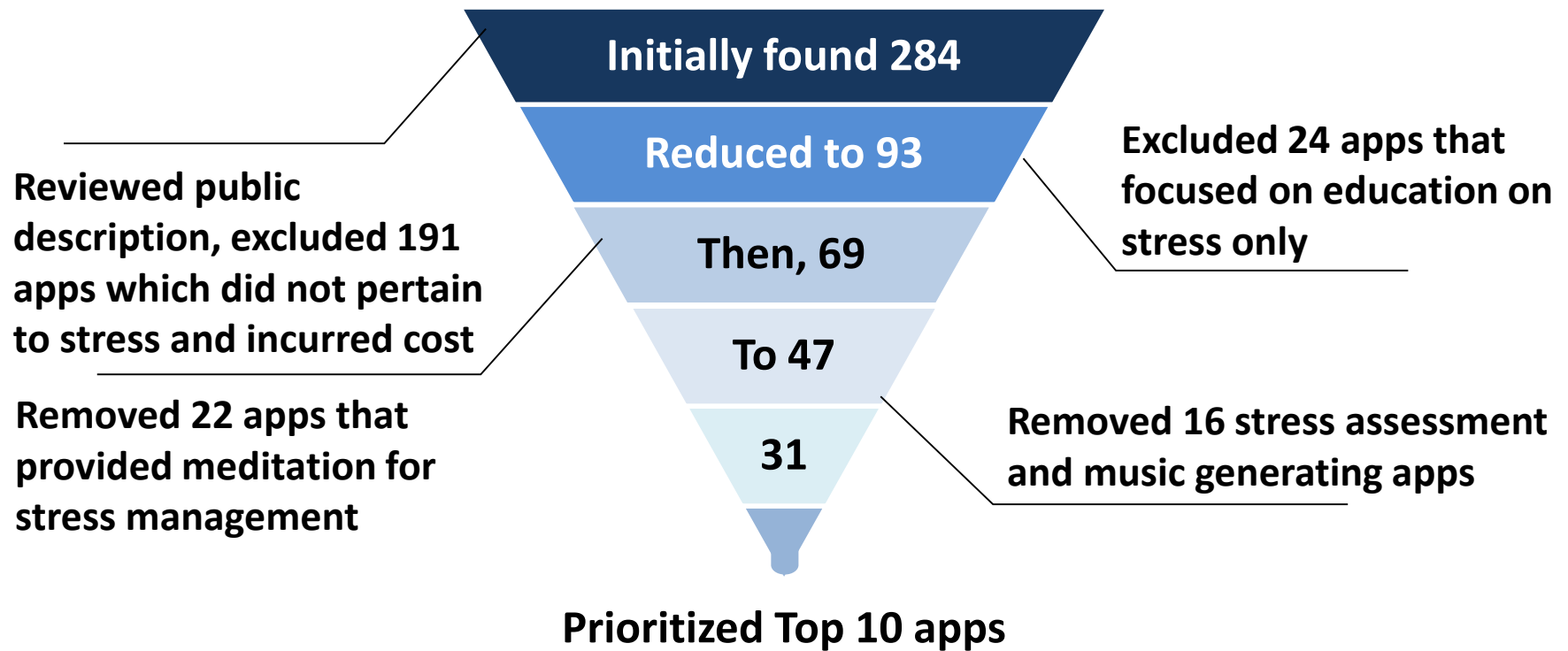
Connected Health – Clearinghouse Top Apps for Stress*

	App Rating Inventory				Market Research			
	Total ARI Score	Evidence	Content	Customiz-ability	Platform	User Ratings/ # of Reviews	Down-loads	Recent Updates
Pacifica - Stress & Anxiety	21	6/6	7/11	8/11	Google Play, App Store	4.4 / 11,747	500,000+	7/9/2018
Youper - AI Therapy	20	3/6	9/11	8/11	Google Play, App Store	4.7 / 5,200	100,000+	8/6/2018
MoodTools - Depression Aid	20	5/6	9/11	6/11	Google Play, App Store	4.4 / 2,802	100,000+	6/10/2018
Moodpath - Depression & Anxiety Test	19	5/6	7/11	7/11	Google Play, App Store	4.6 / 9,940	100,000+	7/5/2018
Headspace: Medication & Mindfulness	18	5/6	8/11	5/11	Google Play, App Store	4.5 / 429,856	10,000,000+	8/24/2018

*Table rankings do not reflect an endorsement of any one app or developer.

Virtual Hope Box Research

Randomized Controlled Trials (RCT)

n = 118 Veterans at high risk for suicide
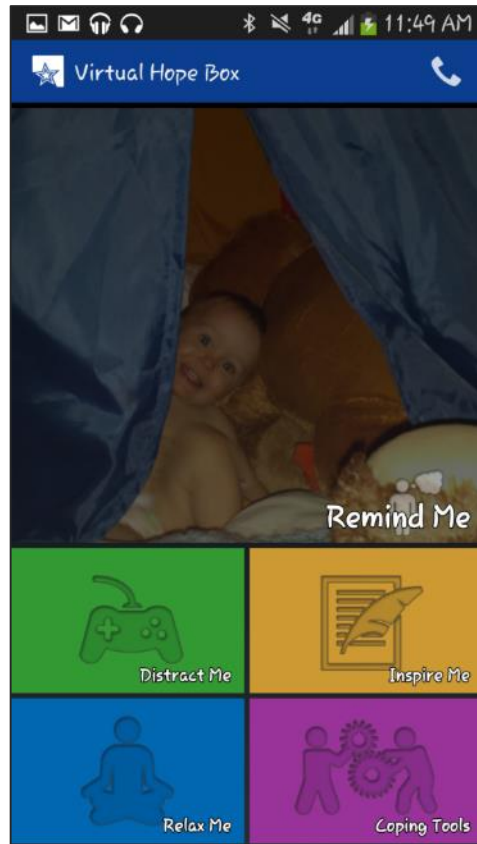
63 behavioral health providers

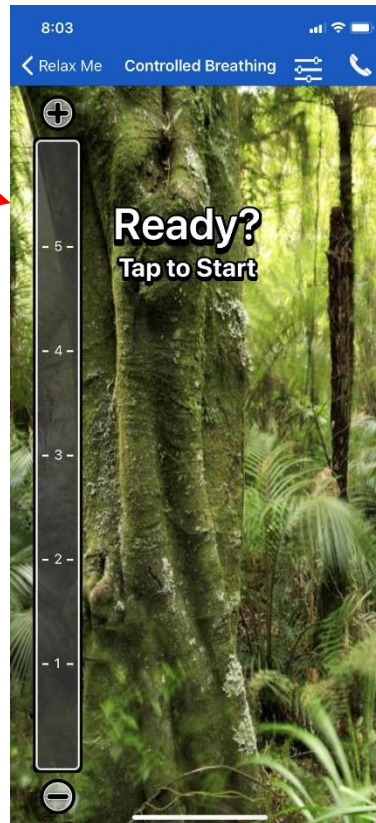13 treatment programs within the VA Portland Health Care System

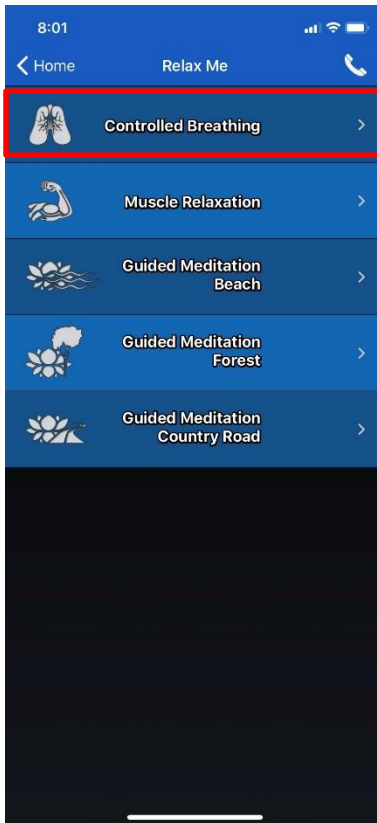Bush, N. E., et.al. (2017).

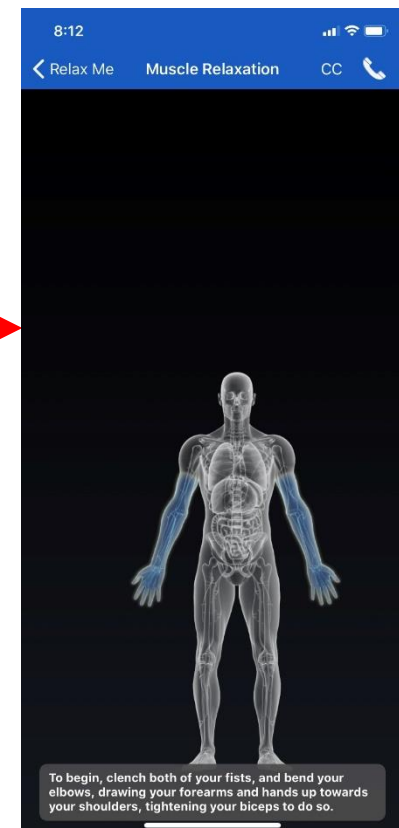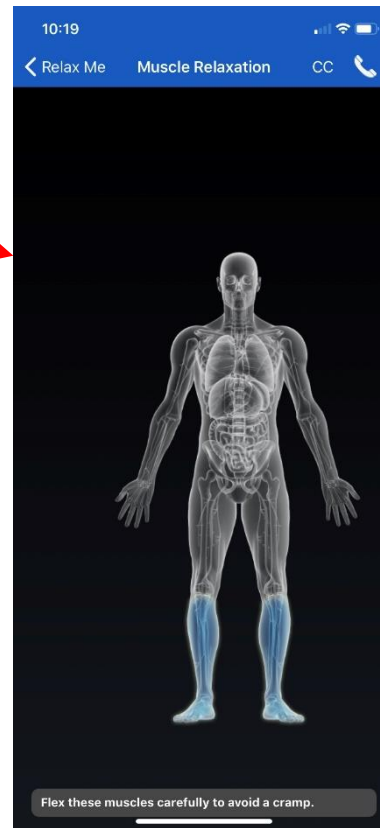# Virtual Hope Box (1 of 2)
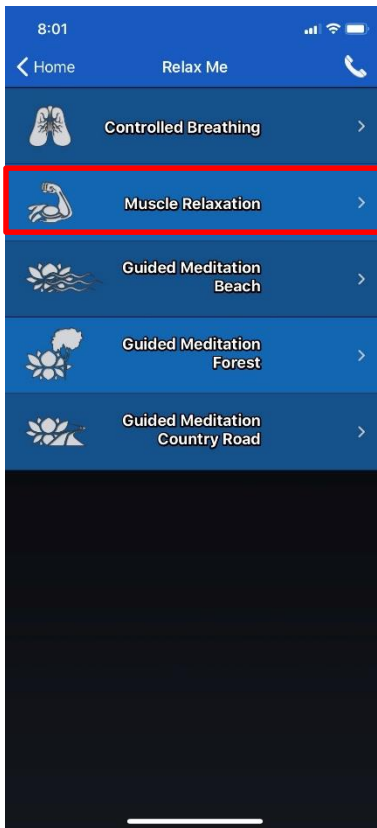
Virtual Hope Box (2 of 2)

Emergency Contact

Remind Me

Relax Me – Controlled Breathing

Muscle Relaxation

Mindfulness Coach

- Self-guided program designed to help you understand and adopt a simple mindfulness practice
- Effective for:
  - Reducing stress
  - Improving emotional balance
  - Increasing self-awareness
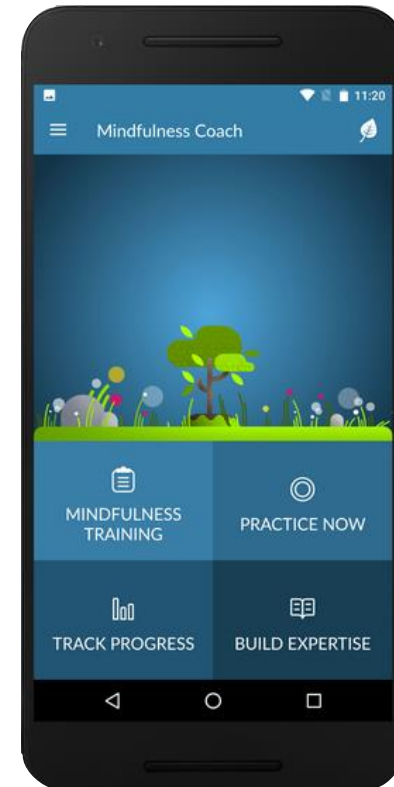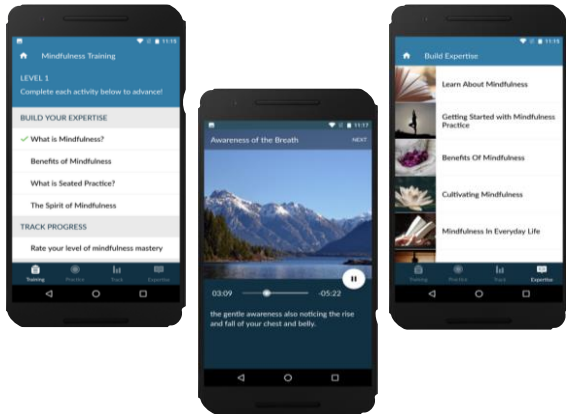 - Helping with anxiety and depression
  - Coping with chronic pain

Image by: U.S. Department of Veterans Affairs

Mindfulness Coach Functions

1 Twelve audio-guided mindfulness exercises

2 Catalog of additional exercises available for free download

3 Goal-setting and tracking

4 Mindfulness mastery assessment to track progress over time

5 Access to support and crisis resources

Images by: U.S. Department of Veterans Affairs

Questions?

Image by: qimono, www.pixabay.com

Next Steps

Image by: Senior Airman Kelsey Tucker, U.S. Air Force

DoD and VA Mobile Health Apps and Provider Training

DHA Connected Health

https://health.mil/connectedhealth

DoD Mobile Health Training Program
https://health.mil/mhealthtraining

VA Mobile Health Apps

https://myvaapps.com

VA Mobile Health Provider Program
https://mobile.va.gov/providers

Contact Information

Connected Health Branch, Defense Health Agency
U.S. Department of Defense
Dha.connected-health@mail.mil
https://health.mil/mhealthtraining

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Image by: Pexels, Pixabay.com

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How can you protect and secure health information when using a mobile device? | *Providers & professionals | HealthIT.gov*. (2013, January 24). HealthIT.gov | the official site for Health IT information. https://archive.healthit.gov/providers-professionals/how-can-you-protect-and-secure-health-information-when-using-mobile-device

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1. Go to URL: https://www.dhaj7-cepo.com/content/clinical-communities-speaker-series-review-current-trends-and-best-practices-primary-care-28

2. Click on the REGISTER/TAKE COURSE tab.

   a. If you have previously used the CEPO CMS, click login.

   b. If you have not previously used the CEPO CMS click register to create a new account.

3. Follow the onscreen prompts to complete the post-activity assessments:

   a. Read the Accreditation Statement

   b. Complete the Evaluation

   c. Take the Posttest

4. After completing the posttest at 80% or above, your certificate will be available for print or download.

5. You can return to the site at any time in the future to print your certificate and transcripts at https://www.dhaj7-cepo.com/

6. If you require further support, please contact us at dha.ncr.j7.mbx.cepo-cms-support@mail.mil

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