

Adoption of Mobile Applications by Advanced Practice Providers

Susan Bowman Burpee, RN, MS, CNP Joni Tornwall, MEd, RN Linda Quinlin, DNP, ACNS, FN<u>P, ACHPN</u>

Overview

Disclosures

- No conflicts of interest
- No sponsorship or commercial support for this presentation
- Employer: The Ohio State University

Objectives

- Describe three apps used most often by advanced practice providers in the clinical setting and how they can facilitate workflow and patient care.
- Identify strategies for discovering new apps and exploring their potential validity, reliability, and usability in practice and nursing education.

Who, What, Why?

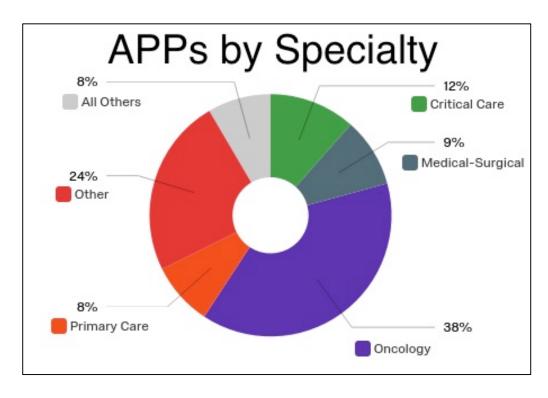
- Apps and education
- Research questions and survey development
- IRB approval
- Email
- Results

Mobile app use in clinical practice

- Provide APPs with any-time, any-place access to current information
- Tools for APPs who need information quickly
- Facilitate workflow for APPs
- Maximize patient flow
- Improve diagnosis, treatment, and documentation

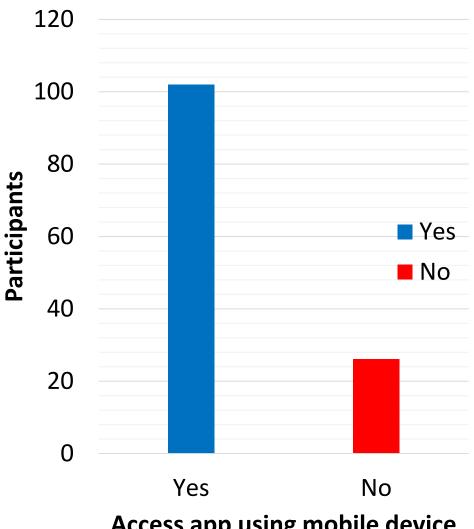
Survey results: Demographics

- 128 results returned (N = 598)
- 103 female, 17 male
- Average age = 43
- Average years in practice = 9 years
- 90% from The Ohio State University Wexner Medical Center



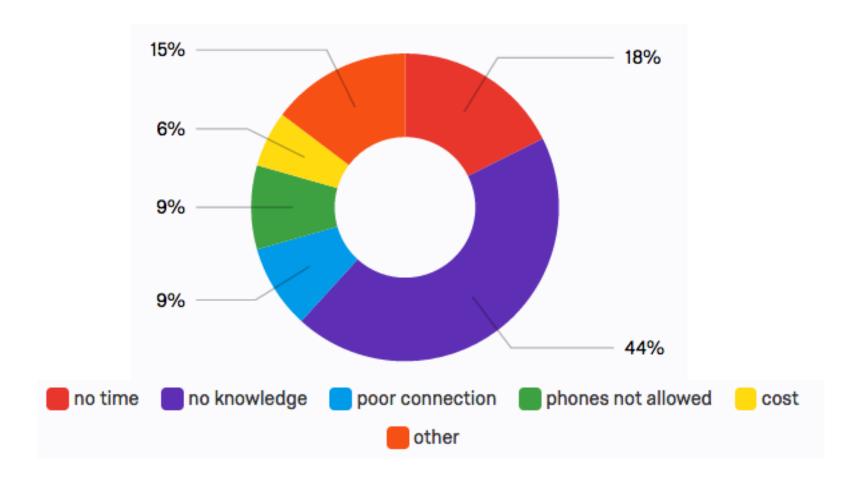
Mobile app use

- Using apps on mobile devices:
 - YES-102
 - NO-26



Access app using mobile device

Reasons for not using apps



Evaluating Mobile Applications

8 Criteria

- Usefulness
- Accuracy
- Authority
- Objectivity
- Functionality
- Design
- Security
- Value

Medical apps most used to make clinical decisions

- Epocrates 77%
- UpToDate 67%
- Micromedex 41%
- Medscape Mobile 20%
- MedlinePlus 20%
- Lexicomp 17%
- 5-Minute Clinical Consult 10%

- Sanford Guide to Antimicrobial Therapy 10%
- ASCVD Risk Estimator 8%
- uCentral 7%
- VisualDx 5%
- Calculate by QxMD 4%
- Skyscape 3%
- Omnio 1%

Women's health apps

- STD Tx Guide 67%
- ASCCP Algorithms 67%
- FRAX 33%
- Other = Lactmed 8%







Pediatric health apps

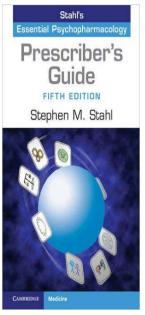
- Pedi QuikCalc 67%
- PediStat 33%





Psych/mental health apps

- DSM-5 Diagnostic Criteria 88%
- Stahl's Essential Psychopharmacology 13%





General non-medical or less healthcare specific apps

- Google Translate 84%
- 3D Brain 16%
- Canopy 5%







Social media apps used to access information related to patient care

- YouTube 79%
- Facebook 31%
- Twitter 5%













QUESTION

Should I recommend apps to my patients?



Apps survey participants recommend to patients

- CDC
- MyFitnessPal
- Apps for Memory/Cognition
- Alzheimer's Assoc App
- Mindfulness Apps
- Catch my Pain App
- Cycle Trackers
- Menses tracker
- Insomnia



Future trends

Apps for better health outcomes

- Prevention and management of chronic health conditions
- Patient care and compliance
- Support for caregivers
- Hardware improvements
- Even larger databases
- CDSS (clinical decision support system)prompts

Apps in heath care education is expected to grow and completely replace textbooks



Conclusion

- Apps are invaluable tools for APPS
- Risk and benefits
- Development of guidelines



Link to handouts

- Presentation
 - go.osu.edu/mobileapps1
- List of mobile apps
 - go.osu.edu/mobileapps2

References

- Barry, J., & Hardiker, N. R. (2012). Advancing Nursing Practice Through Social Media: A Global Perspective. Online Journal Of Issues In Nursing, 17(3), 1. doi:10.3912/OJIN.Vol17No03Man05
- Boudreaux, E. D., Waring, M. E., Hayes, R. B., Sadasivam, R. S., Mullen, S., & Pagoto, S. (2014). Evaluating and selecting mobile health apps: strategies for healthcare providers and healthcare organizations. *Translational Behavioral Medicine*, 4(4), 363–371. http://doi.org/10.1007/s13142-014-0293-9
- Doyle-Lindrud, S. (2014). Mobile Health Technology and the Use of Health-Related Mobile Applications. *Clinical Journal Of Oncology Nursing*, 18(6), 634-636. doi:10.1188/14.CJON.634-636
- Franko, O. I., & Tirrell, T. F. (2012). Smartphone app use among medical providers in ACGME training programs. *Journal of Medical Systems*, *36*(5),3135-3139. doi:10.1007/s10916-011-9798-7
- Grabowsky, A. (2015). Smartphone Use to Answer Clinical Questions: A Descriptive Study of APNs. *Medical Reference Services Quarterly*, 34(2), 135–148. http://doi.org/10.1080/02763869.2015.1019320
- Ventola, C. L. (2014). Mobile Devices and Apps for Health Care Professionals: Uses and Benefits. *Pharmacy and Therapeutics*, 39(5), 356–364.



