



Digital approaches in primary care: Early findings from the implementation of the www.checkupandchoices.comTM web app¹

Reid K. Hester, Ph.D. & William Campbell, Ph.D.
Research Division
Checkup & Choices, LLC
reid@checkupandchoices.com
william@checkupandchoices.com

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Disclosure

- Checkup & Choices, LLC holds the IP of CheckupandChoices.com and I am the co-founder of the company.



Overview

- Rationale
- The intervention
- Implementations
- Implementation research framework
- Results/Lessons learned

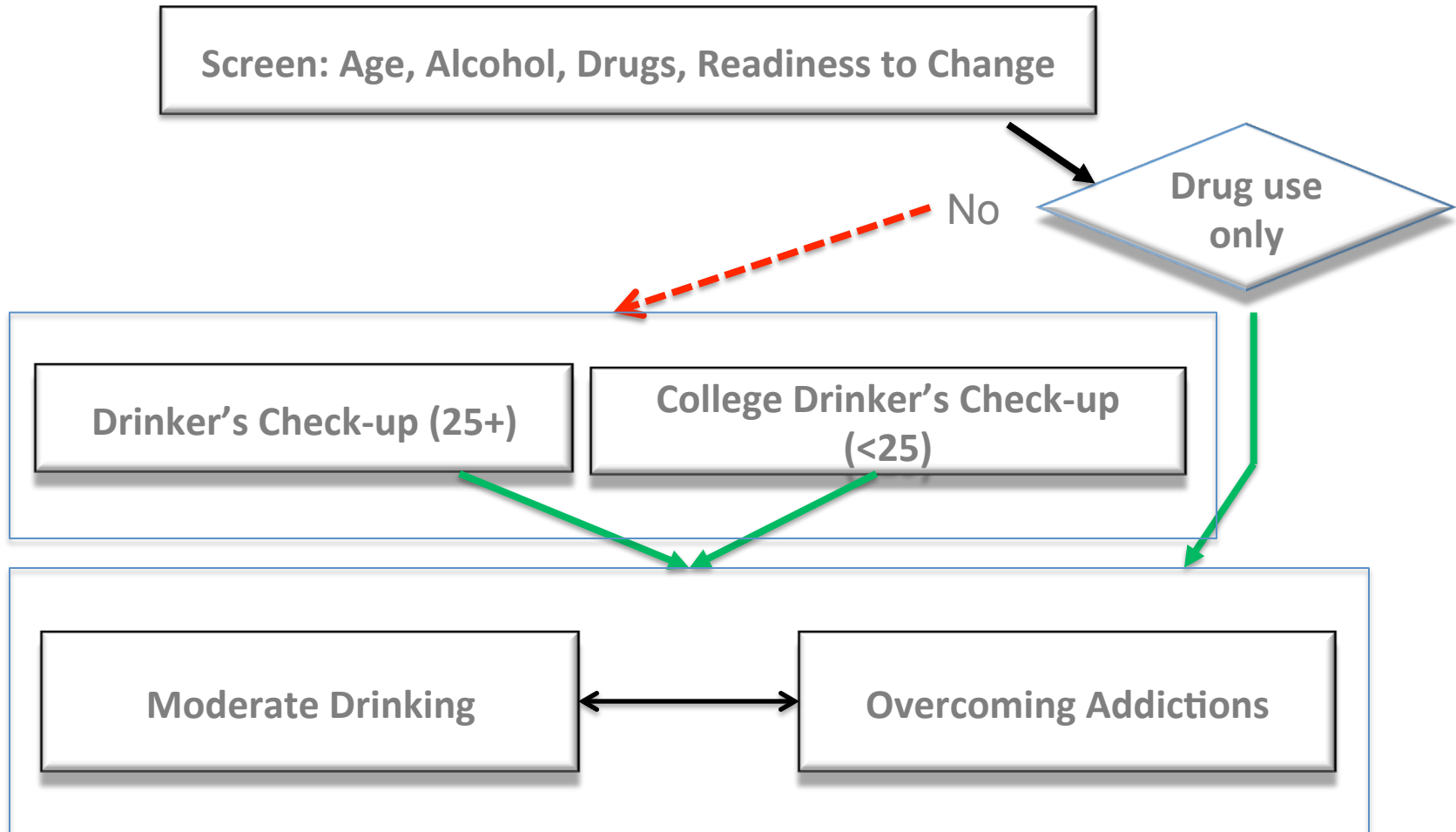


Rationale

- Healthcare organizations
 - Digital interventions for patients who screen positive for heavy drinking
 - Stepped care model of intervention (Sobell & Sobell, 2000)
 - Potential for healthcare improved clinical outcomes and cost savings, w/few additional demands on clinic resources.



Flowchart





Research Framework

- Numerous models to guide dissemination & implementation research (Tabak et al., 2012)
- Consolidated Framework for Implementation Research (CFIR, <http://cfirguide.org>, Damshroder et al., 2009)
 - CFIR advantages for our projects



Results

- Developing implementation plans takes months
 - Involves numerous stakeholders in client organization and our company
 - Tailoring the intervention (sub-domain) contents also takes time
- How the app will be integrated into the clinic work flow is unique to each organization



Implementation

- Case Study in Contrasts: Two very different paths for deployment in large HMOs
 - Feasibility
 - Kaiser Permanente (Sacramento, CA)
 - Adult Primary Care Clinic
 - Efficacy
 - Presbyterian Medical Group (Albuquerque, NM)
 - Six separate embedded behavioral health care clinics



- Kaiser Feasibility Study: Deployment
 - Single clinic in large HMO
 - One early adopter MD in that clinic and her team
 - Identify Sxs from records of 100 of her Pxs
 - Send formal letter with link to site
 - Develop C&C sub-domain for KP
 - Develop introduction and completion page on site
 - Include patient survey
 - Minimize study demands on clinic team



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- Presbyterian Efficacy Study
 - Six behavioral health clinics across ABQ
 - Pxs referred to site by clinical psychologists based on results of AUDIT-C
 - Provide with pamphlet describing site that contains access code
 - Develop C&C sub-domain for PMG
 - Develop introduction and completion page on site
 - Include patient survey
 - Work intensively with team to refine protocol for broader dissemination throughout PMG



- Implementation: Analysis
 - C&C tracks data Pxs input to site
 - Drinking Data
 - Px feedback about site
 - C&C employs Google Analytics to track engagement and usage patterns
 - KP and PMG F/U with Pxs when they return to clinic
 - Notate generic possible outcomes
 - Collaborate on plan for next step
 - Present clinical and site engagement group data
 - Expand study to entire clinic or fully adopt
 - Develop ability to correlate site use with health outcomes



Current Status: 12 months in

- Progress w/Kaiser Permanente
 - Sending out first batch of letters on 9/23
- Progress w/Presbyterian Medical Group
 - Still developing initial protocol
 - Preparing to present to PMG management



Conclusions

- Implementation of new technology requires:
 - Sensitivity to established organizational dynamics
 - Rolling with resistance
 - Reflective listening
 - Awareness of



Thanks

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- PMG Psychologists
 - Paul Wilson, lead psychologist



Thank you!





References

- Damschroder, L.J., Aron, D.C., Keith, R.E., Kirsch, S.R., Alexander, J.A. & Lowery, J.C. (2009). Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implementation Science*, 4:50.
- Hester, R.K., Delaney, H.D., & Campbell, W. (2012). The College Drinker's Check-up: Outcomes of two randomized clinical trials of a computer-based brief motivational intervention. *Psychology of Addictive Behaviors*, 26, 1-12.
- Hester, R.K., Delaney, H.D., & Campbell, W., (2011). Moderatedrinking.com and Moderation Management: 12-month outcomes of a randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 79, 215-224. Abstract at <http://psycnet.apa.org/psycinfo/2011-03047-001>



References

- Hester, R.K., Lenberg, K.L., Campbell, W., & Delaney, H.D.D. (2013b). Overcoming Addictions, a web-based application, and SMART Recovery, an online and in-person mutual help group for problem drinkers Part 1: Three-Month Outcomes of a Randomized Controlled Trial. *Journal of Medical Interne Research*, 15(7):e134.
- Hester, R.K., Squires, D.D., & Delaney, H.D. (2005). The Computer-based Drinker's Check-up: 12 month outcomes of a controlled clinical trial with problem drinkers. *Journal of Substance Abuse Treatment*, 28(2), 159-169.
- Tabak, R.G., Khoong, E.C., Chambers, D.A., & Brownson, R.C. (2012). Bridging research and practice: Models for dissemination and implementation research. *American Journal of Preventive Medicine*, 42(3), 337-350.