
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME William Campbell	POSITION TITLE		
eRA COMMONS USER NAME WILLIAMCAMPBELL			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Reed College, Portland OR	B.A.	1988	English Literature
University of New Mexico, Albuquerque NM	M.S.	2010	Clinical Psychology
University of New Mexico, Albuquerque NM	Ph.D.	2015	Clinical Psychology

A. PERSONAL STATEMENT.

I have 11 years of experience developing, testing and implementing web-based interventions for alcohol and drug abuse. During this time I have been responsible for creating and refining clinical content in the applications, conducting pilot studies, assisting with grant management, managing all phases of the randomized clinical trials, writing study outcome papers for peer reviewed journals, and giving presentations at professional conferences. In addition to time spent adapting extant evidence-based treatments for alcohol and drug abuse to web-based formats, I explore ways that new technologies can evolve and advance clinical practice. Our work with participants across multiple studies has taught us a great deal about how people interact with this relatively new treatment modality. Further, we've implemented tech-based interventions across a variety of contexts; these include educational settings, correctional settings, both in-patient and out-patient treatment programs, and health care settings that range from small rural clinics to system-wide deployments in large managed-care organizations. These efforts have evolved our understanding of the personal, organizational and cultural factors that affect the wide-scale utilization of technological innovations. We believe clinical psychology will evolve along with the evolution occurring in human behavior as a result of increased connectivity and data.

Along with web-based interventions, I am interested in contemporary behavior analysis and I use behavioral theory and principles in my clinical work. I specialize in the treatment of addictions and for the last nine years have provided evidence-based interventions for the assessment and treatment of alcohol and substance use disorders across a variety of contexts (e.g. outpatient clinics; inpatient rehab facilities) and with a wide range of populations (e.g. high-functioning individuals wishing to cut back on their drinking; chronic users seeking to rebuild their lives). I have participated in studies of addiction treatment that explored clinical methodology, clinical training, and the identification of mechanisms of behavioral change.

B. POSITIONS AND HONORS

Positions and Employment

2007-2014	Researcher, Behavior Therapy Associates, LLC, Albuquerque, NM.
2009-2014	Board Member and Program Director, Endorphin Power Company, Albuquerque, NM.
2010-2014	Therapist, Psychology Clinic, University of New Mexico, Albuquerque, NM.

2013-2014 Intern, Cincinnati VA Medical Center, Cincinnati, OH.
2015-2016 Post-doctoral Researcher at Behavior Therapy Associates, Albuquerque, NM.
2015-present Research Scientist, Checkup & Choices LLC, Albuquerque, NM.
2016-present Licensed Clinical Psychologist and Partner at Behavior Therapy Associates LLC, Albuquerque, NM.

Research Positions

2004-2009 RA on NIAAA funded Phase II SBIR Grant “A Moderate drinking web app. for problem drinkers” (ModerateDrinking.com project)
2004-2009 RA on NIAAA funded Phase I & II SBIR grants “The College Drinker’s Check-up.”
2007-2013 RA on NIAAA funded Phase I & II SBIR grants “An internet application for SMART Recovery.”
2013-2014 RA on NIAAA funded the Phase I & II SBIR grants, “A web application to reduce heavy drinking in first-time DWI offenders”
2016-2018 Co-I on NIAAA funded Phase II CRP grant, “An internet application for SMART Recovery.”
2017-2018 PI on a NIAAA funded Phase I grant “A wearable-tech app for CheckUp and Choices.”
2018 PI on a NIDA funded Phase I grant “An integrated mobile and web-based application for problem cannabis use.”

Professional Memberships

Association for Contextual Behavioral Science
Association of Behavior Analysts International
Research Society on Alcoholism
Association for Behavioral and Cognitive Therapies

C. Contributions to Science

My early contributions to science came as a member of Dr. Hester’s research team, and our efforts to build on his pioneering work with the computer-based version of the Drinker’s CheckUp. In the process of developing and evaluating the effectiveness of a variety of programs for people with alcohol and drug problems, we made significant contributions to the nascent science of digital interventions. The main citations for these projects are listed below. In chronological order they are:

Moderate Drinking (MD). MD is a web application we based on the principles of Behavioral Self-control Training. In the randomized clinical trial of MD we partnered with Moderation Management (www.moderation.org). In addition to evaluating the efficacy of MD, we began to explore participant characteristics that predicted success using online protocols. We published these findings in the *Journal of Consulting and Clinical Psychology*. Also, based on the feedback from study participants, we began to develop elements designed to increase user engagement with the intervention, namely, the use of text and email prompts to return to the site.

College Drinker’s Check-up (CDCU). We adapted Dr. Hester’s Drinker’s Check-up for young adults in this SBIR project. In two randomized clinical trials, one of which had a 12-month follow-up, participants reported changes in drinking that constitute some of the largest reductions in the literature to date. In this study, we also sought to address methodological practices in the field of tech-based interventions by designing an arm of the study that partitioned out assessment reactivity.

Overcoming Addictions (OA). OA is a cognitive behavioral, abstinence-focused intervention based on the SMART Recovery (SR) model. In addition to developing the program itself, in this project we continued to explore factors related to the successful deployment of tech based interventions, both within the programs themselves and adjunct to their use. We created motivational exercises, embedded video presentations, and developed an email program that guided users through the

program in a step-by-step fashion. We compared individuals who used OA alone to those who used it in conjunction with SR, and we explored participant-related factors theorized to predict outcome. Just as our MD project had demonstrated that a web application (outside of treatment) could be effective with less dependent drinkers, the results from this study revealed that OA, either alone or in conjunction with the resources of SMART Recovery, could increase abstinence and reduce heavy drinking and alcohol-related problems in much more dependent problem drinkers.

Right Turns (RT). We developed a web application for first-time DWI offenders based on the original Drinker's CheckUp, and tested it in a randomized clinical trial. In the execution of this study we learned a great deal about the deployment and implementation of tech-based interventions within large organizations. The challenges we encountered with administrative complexities and institutional intransigence led us to apply for an SBIR Commercialization Readiness Project grant so that we could more closely study factors related to implementation.

Subsequent to obtaining my doctorate Dr. Hester and I discussed ways to combine the above programs into one over-arching program that could adaptively meet the needs of the individuals and institutions that use it. At this time Dr. Hester was approached by investors willing to fund the build of a cutting-edge tech-stack necessary to meet that aim, and to support its commercialization. The result is the site CheckUp&Choices.com (CC: <https://checkupandchoices.com/>). Dr. Hester directs the Science Division of the newly formed company behind CC, and I am the lead researcher. Since the formation of the company we have worked on the following projects:

Commercialization Readiness Project (CRP). In this NIAAA-funded project we sought to directly explore factors related to the implementation of tech-based interventions in treatment contexts. Partnering again with SR's national organization, we recruited 10 SR groups across widely diverse settings and provided them with both free access to CC as well as active support in its implementation. Concomitant with this project, we also implemented CC in a range of other settings: health care, education and corrections.

Wearable Technology. With the support of NIAAA SBIR grant funding, we've begun a new line of research into the particular advantages afforded by wearable and mobile technology, specifically with regards to ecological momentary assessment and intervention and the application of behavioral principles in the context in which target behaviors occur. We are interested in discovering ways that mobile and wearable tech can advance clinical practice. This SBIR phase I pilot study found that wearable technology increased individuals' tracking of their own drinking behavior, and enhanced their awareness of the contingencies that influence their drinking behavior. We are currently planning a phase II project that would build intervention elements around this ecological functionality.

Marijuana CheckUp (MjCU). In this project we are building a brief intervention for cannabis users. The chief goals of this project, currently in phase I development, are 1) to build a program that appeals to adolescents (a population most at-risk for cannabis-related harms), and 2) to design an intervention that uses artificial intelligence to adaptively respond to a user's specific risk factors and provide treatment elements appropriate to them.

Opioid CheckUp (OCU). We have begun the development of an SBIRT tool for managed care organizations, primary care doctors and pain management specialists that treat patients with chronic pain. This tool is meant to address a specific aspect of the opioid epidemic, providing early identification and initial treatment for chronic pain patients who may be at risk for abuse.

Selected Publications

Campbell, W., Hester, R.K., Lenberg, K.L., and Delaney, H.D. and (2016). Overcoming Addictions, a web-based application & SMART Recovery, an online and in-person mutual help group for problem drinkers, Part 2: Six-month outcomes of a randomized clinical trial and qualitative feedback from participants. *Journal of Medical Internet Research*. Vol 18, Issue 10, e262.

Hester, R.K., Lenberg, K.L., Delaney, H.D. and Campbell, W. (2013). Overcoming Addictions, a web-based application & SMART Recovery, an online and in-person mutual help group for problem drinkers: Part 1, three month outcomes of a randomized clinical trial. *Journal of Medical Internet Research*. Vol 15, Issue 7, e134.

Campbell, W. and Hester, R.K. (2012) Computerized Interventions, in *College Student Alcohol Abuse: A Guide to Assessment, Intervention, and Prevention*. Wiley.

Hester, R.K., Delaney, H.D. and Campbell, W. (2011). ModerateDrinking.com and Moderation Management: Outcomes of a randomized clinical trial with non-dependent problem drinkers. *Journal of Consulting and Clinical Psychology*. Vol. 79, Issue 2, p15-24.

Hester, R.K., Delaney, H.D. and Campbell, W. (2011). The College Drinker's Check-up: Outcomes of Two Randomized Clinical Trials of a Computer-Delivered Intervention. *Psychology of Addictive Behaviors*. Vol. 26, Issue 1, p1-12.

Hester, R.K., Delaney, H.D., Campbell, W. & Handmaker, N.A. (2009). A web application for moderation training: Initial results of a randomized clinical trial. *Journal of Substance Abuse Treatment*. Vol. 37, Issue 3, p266–276.

Complete List of Published Work in My Bibliography

<http://www.ncbi.nlm.nih.gov/sites/myncbi/william.campbell.2/bibliography/49920378/public/?sort=date&direction=ascending>

D. Research Support

Ongoing support

1R43DA045390-01 Campbell (PI) 4/15/18—10/15/18
NIH/NIAAA

“An integrated mobile and web-based application for problem cannabis use.”

In this Phase I project we developed a prototype smartphone application of the Marijuana CheckUp and integrated it with our CheckUp&Choices.com website.

Completed Research Support

2 SB1 AA016237-05 Hester (PI) 9/1/16—8/31/18

An Internet application for SMART Recovery.

In this Phase II SBIR Commercialization Readiness Project we are adapting the Overcoming Addictions application for use in SUD treatment settings. This is an implementation research project. We also will be developing dashboards reporting aggregate data for the treatment providers.

1R43AA025502-01 Campbell (PI) 9/1/17—3/31/18
NIH/NIAAA

A wearable tech app for Checkup&Choices

In this Phase I project we developed a prototype smartwatch application for self-monitoring of drinking in real time using smartwatches.