



# The Addictions Newsletter

The American Psychological Association, Division 50

SPRING 2014

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## President's Column

### Collaborative Perspectives on Addiction (Version 2.0): Just an "Update," or a Whole New "Operating System"?

John F. Kelly

We are all used to software updates, whether on our mobile phones, tablets, or computers. Many of them are pretty unexciting. We often don't even perceive what the update supposedly has made better. Even though the operating system "works ok," we often crave something with a fresh look and new functionality. Software manufacturers know this; they have to produce something that is always engaging, attractive, useful and helpful, and ideally, fun, in order to stay competitive in a rapidly changing market.

What we do as addiction psychologists, for sure, has more gravity and direct public health significance than smartphones and software operating systems, but for many of us as APA member addiction specialists, one way we have received our own incremental addiction psychology-focused "software updates" is via the large annual APA conference. While many perceive that the larger APA conference sort of "works ok," many have complained that the APA "update" format is unexciting, too unwieldy and complicated, and just had too much "bloat ware." Now, we have our very own nimble, focused, efficient, Collaborative Perspectives

on Addiction Conference (current Version 2.0)! This is not just another "update," but rather a shift to a new and improved "operating system." It has a fresh look and perspective, but more substantively, it will genuinely and explicitly combine in one single "application," what have so long been disparate elements of our field and of our Divisions 28 and 50—basic research, applied research, and practice.



John F. Kelly

The new conference addresses the frustration expressed on both sides about the "research-practice gap"; from clinicians criticizing researchers' lack of sensitivity to "real-world clinical problems and complexities," and from researchers complaining about the lack of clinicians' knowledge regarding what the "hard evidence" says about effective interventions and the likely effect sizes to be expected from specific clinical efforts. I recently received an email from a top psychologist that, for me, captures and epitomizes this sentiment held by many psychologists in our Division and possibly in our field at large as well as other allied mental health fields. This psychologist permitted me to relay their thoughts to you:

*"I wish to share my speculation about the Division 28/50 conference*

*in Atlanta and facts about the C4 Recovery solutions conferences. These conferences seem to represent isolated silos of information.*

*First the speculation: I suspect that up to 80% of the 28/50 conference presenters and attendees are primarily research or academic psychologists—either faculty or their students. If the articles in Psychology of Addictive Behaviors are an indication, many of the presentations will be made by individuals who are meeting grant obligations for dissemination or academicians whose institutions value presentations and publications. Again, based on the journal articles, many of the presentations will feature what I call “So what...?” studies. That is for counselors, social workers, physicians, and psychologists working in public and private treatment programs, their response would be, “So what do I do with this information?” or “So what will this information do to improve quality or effectiveness of treatment?” In short, the studies may be theoretically and intellectually interesting, but there is no practical bridge to delivery of services in the real world outside of research protocols.*

*Now the facts: The C4 conference on Cape Cod ([www.ccsad.com](http://www.ccsad.com)) and the Palm Springs conference ([www.wcsad.com](http://www.wcsad.com)) draw about 1,000 and 800 attendees respectively. Of those, 80% or more are primarily clinicians working in treatment programs. However, almost none of the presentations are based on research funded by NIAAA or NIDA and to my knowledge virtually no “name brand” researchers have ever submitted presentation proposals. I know this to be the case because I sit on the committee that reviews proposals. Most of the presentations feature “commercial” presenters who are presenting or training on their specific areas of expertise. Unfortunately, few of these have any original data or research to share. At best they cite studies and anecdotal experiences.*

*What I would like to see for the big C4 conferences (and the two new ones) are proposals based on sound research that focus on realistic, pragmatic applications to routine clinical services. These would be venues where researchers could not only present their work, but also get practical feedback from people in the trenches. Also, the graduate and new professional poster sessions at CCSAD and WCSAD provide some generous compensation for the top four posters. First place is a \$500 honoraria plus up to \$750 in travel reimbursement. Second to fourth place finishers get \$250 each. All accepted poster presenters get free admission to the conference and (I think) one or two nights of lodging compliments of the conference. I expected that faculty would view this as a good opportunity for their graduate students and new junior faculty. I have put the submission information on a variety of lists with dismal response rates.”*

To me, these observations ring true. The central aim of the Collaborative Perspectives conference, in theory, is actually to try to achieve this interchange of ideas and information across basic and applied research and clinical implementation. We may have a long way to go to really facilitate an effective and productive interchange that caters to all our interests and activities, but we want to begin to build, and strengthen these bridges, so that, ultimately, we can help more people suffering from addiction, and help them more effectively and efficiently. I believe strongly also that more academic researchers need to present at the (currently) purely clinician-focused conferences. My sense is that there’s an implicit snobbery that some of us have, that somehow clinician-focused conferences lack academic prestige and therefore are “not worth it.” We need to go for a “hard reset” here, to lose that notion.

Collaborative Perspectives on Addiction Version 2.0 will be “released” in Atlanta Feb 28<sup>th</sup>-Mar 1<sup>st</sup>. I know many of you will be attending and presenting and I’m looking forward to seeing you at

the W Hotel conference venue. The smaller size and specific focus of this conference makes it ideal for fostering new collaborations and friendships, exchange of information and cross-fertilization of ideas. What’s very cool also is that it facilitates really easy interactions between students, trainees, junior faculty, and more

### SOAP MEMBER SERVICES

Join SoAP: [www.apa.org/divapp](http://www.apa.org/divapp)

**Renew SoAP:** APA Members, Associates, and Fellows may renew via [www.apa.org/membership/renew.aspx](http://www.apa.org/membership/renew.aspx) and Professional Affiliates (professionals with no membership in APA) and Student Affiliates may renew at [www.apa.org/divapp](http://www.apa.org/divapp).

**Website:** [www.apa.org/divisions/div50](http://www.apa.org/divisions/div50)

**Listservs:** To join the discussion listserv (discussion among members), contact Robert Leeman at [robert.leeman@yale.edu](mailto:robert.leeman@yale.edu). All members (and all new members) have been added to the announcement listserv, [div50announce@lists.apa.org](mailto:div50announce@lists.apa.org) (for division news).

**Journal:** You can access the division journal, *Psychology of Addictive Behaviors*, online at [www.apa.org](http://www.apa.org) via your myAPA profile (even if you don’t belong to APA). Log in with your user ID or email and password.

**Newsletter:** *The Addictions Newsletter* is sent out on the listservs and is available on the website.

**For help with membership issues,** contact the administrative office at [division@apa.org](mailto:division@apa.org) or 202-336-6013.

senior members. This year will build on the experience and foundation established last year and is on the verge of breaking our attendance record set last year! So, come and download the latest version, plug in and recharge, “friend” someone; reboot and enhance your functionality.

That’s it. Now, back to my Angry Birds....

#### P.S.: Certificate of Proficiency Reinstatement Update

As many of you know, our Certificate of Proficiency in the treatment of psychoactive substance use disorders was discontinued by APA for new members, without our knowledge or consultation and we have been working with the APA Board to try to get it reinstated. This process is ongoing. To give you some idea of the issues we are putting to the APA Board, I am posting a second letter recently sent to the APA Board stating our concerns, discontent, and urgently requesting reinstatement of the Certificate:

#### Letter to the APA Board

December 16<sup>th</sup>, 2013

Donald N Bersoff, PhD  
President  
American Psychological Association  
750 First Street NE  
Washington, DC 20002

Dear Dr. Bersoff and APA Board of Directors:

Re: Certificate of Proficiency in the Treatment of Alcohol and Other Psychoactive Substance Use Disorders

Thank you and the APA Board for taking the time to consider our concerns regarding the reinstatement of the Certificate of Proficiency for the Treatment of Psychoactive Substance Use Disorders (the “Certificate”) for new members needing to obtain the Certificate who are not current Certificate holders.

Further to your last email on November 25<sup>th</sup> 2013 which detailed the APA Boards’ suggested plan to conduct a survey

of members of several APA Divisions including our own, in order “to determine current market place need”, our own Board now has had the chance to consider and discuss your approach to address our stated concerns. Below we provide our thoughts that we hope you and the Board will consider:

1. The statement provided by the APA Board in your email correspondence of November 25<sup>th</sup>, 2013, “...it was considered unwise for the (APA) organization to offer a product so few psychologists valued,” seemed to us that APA’s main concern was that it wasn’t making enough money from the Certificate. Our Board was disturbed by this as we and our Division members, as well as many from APA Divisions allied on this issue (e.g., Div 12, 28, 55) all pay large dues to the APA and would expect the APA (a non-profit organization) to value more highly what we believe we need from them.

If the expectation is simply to make money from this activity, we would like to know what the profit margin would need to be. As you may expect, many Board members have very strong feelings about this. The APA seems to not value our constituency’s request for this and it is not clear why, other than money. We have over 400 members supporting the reintroduction of the Certificate. You and the APA Board had suggested conducting a survey next year. It is unclear to us what a survey could possibly add to what we already know, and would add further costs to APA in time and money.

Prior to its discontinuation, the average annual direct cost of offering the Certificate was \$15,000 (e.g., testing firm and expert panel), not including salary costs for staff who support the program. Revenue averaged \$60,000 per year with an average annual positive net of \$45,000. Since discontinuation, net revenue from existing Certificate holders has averaged \$45,500 per year. Resumption of the credential for new applicants would cost approximately \$30,000 in the year prior to reintroduction.

The Board may not realize also that we

have financial resources that could help in the reinstatement process and to support the Certificate going forward. We have a vested interest in making the Certificate viable.

2. The APA Board may not understand that the Certificate generates revenue through continuing education (CE) programming to maintain the certification for those who have it. We believe this should be considered also in the decision making process.

3. The Decision to conduct a survey “during 2014” was believed to be too vague. Given the timeliness and importance of this matter related to growing demand for addiction psychology services under health care reforms and mental health and addiction parity laws, we would like to establish a regular schedule of meetings to obtain updates on this matter. A part of our urgency, is that many are losing money as they are needing to seek credentials elsewhere to keep current in the marketplace, so we can compete with Marriage and Family Therapists (MFTs) and Alcohol and Other Drug (AOD) counselors.

4. We have concerns about the adequacy of the survey to provide the basis for any decision to reinstate the Certificate for new members. This is, in part, because APA survey response has been generally very low. As noted, we already have more than 400 signatures who have signed our petition for Certificate reinstatement. This was not mentioned in your email response and we wondered whether this was even considered. How would these signatories factor into the APA decision making process?

5. If the survey goes ahead, we want to be involved in the survey development process to ensure the right kinds of questions are asked. Given the fact that we were completely ignored previously in the decision to stop issuing the Certificate for new members, we would like to be part of the survey and have some oversight.

6. We would like to remind the APA Board also that in the past we had



presented a partner—the National Association for Alcoholism and Drug Abuse Counselors [NAADAC]), which was ignored. There are cost-sharing benefits with such collaborations that should be considered and discussed.

7. Your email of November 25th, 2013 also stated a reason for APA's decision to discontinue the Certificate was because of lack of interest from members. This does not take into account the fact that there was a general loss of membership in APA during the same time period and the significant problems that were occurring with the APA website during this time period. Some individuals complained to us that they were unable to find the Certificate information. We understand that several webmasters were used causing major disruption to the APA website.

8. We were surprised that nothing was mentioned in the Board's response regarding mental health parity, health care reforms and the growing work force demands in the alcohol and other drug arena. This demand will provide a growing market for addiction services. We believe the APA has an opportunity to market psychologists as viable and optimal clinical addiction service providers and to market this APA Certificate to the health insurance industry to assist addiction psychologists nationally to be afforded a place at the table in addiction service provision.

9. We felt that the problematic process issues that led up to this problem were not addressed in the Board's response. We understand APA to be a member driven organization, yet the actions of

APA staff disenfranchised our members on this critically important matter, and without any apology. We request a timeline and a greater collaborative effort to engage us in the Certificate reinstatement process.

We thank you for your continued consideration of our request for immediate reinstatement of the Certificate and look forward to your response as soon as possible.

Sincerely and on behalf of the Society of Addiction Psychology,

John F. Kelly, PhD  
President, APA Society of Addiction Psychology

## Editor's Corner

### Bettina B. Hoepfner

Oh boy, do we have a fun issue of TAN for you! I'm very excited to present to you this new issue of TAN, which focuses on the role of smartphone technology in clinical care and research. Mobile technology holds great promise for supporting health and addictive behavior change, and is a priority for the National Institute of Health (NIH) (see, for example, [http://obssr.od.nih.gov/scientific\\_areas/meth-odology/mhealth/](http://obssr.od.nih.gov/scientific_areas/meth-odology/mhealth/)) and the World Health Organization (WHO) (see, for example, [http://www.who.int/goe/publications/goe\\_mhealth\\_web.pdf](http://www.who.int/goe/publications/goe_mhealth_web.pdf)). So far, however, we have only begun to realize the promise this new technology holds. We know that this technology poses challenges—as eloquently and intriguingly described by Robert Weiss in one of this issue's articles—and it can and has been used to worsen addictive behaviors: for example, currently 107 pro-smoking apps



Bettina B. Hoepfner

exist that are used by over six million users globally (BinDhim, Freeman, & Trevena, 2014). By comparison, how do we stack up in using this technology for the good? The answer to that question is contained in the articles in this TAN issue that describe current efforts to develop and improve smartphone apps to support recovery from addictions. And I have to say, this work is impressive. But don't take my word for it: take a look and see for yourself!

In other news, in this issue of TAN we urge you once again to support our current petition to reinstate the certificate of proficiency, and share with you our recent efforts to that end (see Nancy's Advocate's Alcove, and John's letter to the APA leadership). We also introduce you to our candidates in this year's Division 50 election, tell you more about the imminently upcoming Changing Addictive Behavior (CPA) meeting (Feb 28<sup>th</sup> - March 1<sup>st</sup>, 2014), and update you on the Division 50 program

for this year's APA convention. And, of course, there are intriguing new abstracts and announcements as well. As you can see, an exciting issue of TAN!

**The topic for the next issue of TAN (submissions due on June 1, 2014) is "E-cigarettes: Friend or Foe?"** The past decade has seen a rise in the use of these nicotine delivery devices, and while there is some enthusiasm for them, there are also public health concerns. What are your thoughts regarding e-cigs? What do you tell your clients and patients when they ask you about them? I invite you to share your thoughts with us by submitting an article for the next issue. Keep in mind that articles are fairly informal, and take many shapes (e.g., opinion pieces, descriptions of pilot or small studies, short reviews). We'd love to hear from you!

Happy reading!

### Reference

BinDhim, N. F., Freeman, B., & Trevena, L. (2014). Pro-smoking apps for smartphones: the latest vehicle for the tobacco industry? *Tob Control*, 23(1), e4. doi: 10.1136/tobaccocontrol-2012-050598

# Advocate's Alcove

**Nancy A. Piotrowski**  
*Division 50 Federal Advocacy  
Coordinator*

Show your love for Addiction Psychology by signing our petition to bring back the Certificate of Proficiency in the Psychological Treatment of Alcohol and Other Substance Use Disorders. We are still working to bring this proficiency back, and if you have not signed it, we need you to do so. Also, please encourage your colleagues and students to do so. Again, as health care reform unfolds and expands addictions coverage, it is imperative that our work force be ready to go and is recognized. Please click here—[petition](#)—and sign now. Please also consider asking your local county and state associations to place an article in their newsletter about this matter. Simply let me know you need this material [napiotrowski@yahoo.com](mailto:napiotrowski@yahoo.com) and I will provide it.

In addition to the effort above continuing, I will be attending the annual State Leadership Convention (SLC) in Washington soon in my role as your Federal Advocacy Coordinator (FAC). The meeting will focus on the implementation of healthcare reform and the creation of pathways into that process for psychologists. Katherine Nordal, Executive Director for Professional Practice at the American Psychological Association Practice Organization (APAPO), sees opportunities to preserve

and expand psychologists' roles in the criminal justice system, educational settings, the workplace, and national security settings, among others. She also sees crucial work ahead for us related to an increased focus on integrated healthcare and our ability to make cost-effective contributions to managing substance use problems, as well as problems related to diabetes, heart disease, and asthma. Dr. Nordal asserts that such goals will require different skill sets and advocacy strategies to minimize obstacles and promote access to psychological services. To these ends, the SLC will provide some focused learning opportunities in these areas, as well as direct action opportunities.

I will report back on this work next issue. In the meantime, you can keep informed on some of these issues as they are reported at APA Practice Central ([www.apapracticecentral.org](http://www.apapracticecentral.org)).

I also want to share with you that I have started a committee of student volunteers who are interested in advocacy. We have made a commitment to meet once per month for six months. Each meeting will focus on learning about advocacy

strategies and skills for addiction psychology. This initial group of 10 students will be meeting via conference call, sharing reading materials, their ideas and interests in advocacy, and

having opportunities to talk to seasoned professionals who have done advocacy related to addiction psychology and the field more broadly. Additionally, where other opportunities to join varied education or other efforts happening in the division interface with our discussions, students will be networked to others in the division.

Longer term, I would enjoy having more students join the effort. I also would enjoy having others in our group in other stages of their careers get involved. A longer term goal for our

division would be to have active advocates in all of the states and territories. Such a network will provide a mechanism where, when pressing issues related to addiction arise, we can both: (a) learn about them more readily and pass the information up to APAPO, and (b) activate our network of connections to speak out where it would be useful to aid in the development of more informed policies, laws, and actions related to our work with our clients and in our field. If this is of interest to you or your students, please be in touch.

## Resource Information

APA Practice Central, [www.apapracticecentral.org](http://www.apapracticecentral.org)  
Petition to reopen the Certificate of Proficiency in the Psychological Treatment of Alcohol and Other Psychoactive Substance Use Disorders, <http://www.ipetitions.com/petition/reopening/ψ>



Nancy A. Piotrowski



# New Member Spotlight: Todd Bishop

Allison K. Labbe  
Early Career Representative

Please welcome to SoAP a new student member, Todd Bishop. Todd is a pre-doctoral fellow currently completing his APA-accredited internship at the Veterans Affairs Medical Center (VISN 2) in Syracuse, NY. He is an advanced graduate student in the clinical psychology doctoral program at Syracuse University and anticipates graduating this spring.

## *How did you get interested in addiction psychology?*

Prior to entering graduate school, I worked at a clinic specializing in the treatment of individuals with comorbid mental health and substance use disorders. For a year, I performed residential intake assessments for the agency's various housing programs. The exposure to severe mental illness and addiction issues in a population with few resources was inspiring and rewarding. Following this experience, I sought out graduate programs and mentors that would allow me to continue working in these areas.

## *How did this experience influence you to pursue a career in addiction psychology?*

Helping an individual to establish housing was a very action oriented activity that, when successful, allowed the person to better focus on his or her recovery. Witnessing the improvement in individuals' quality of life that was achieved when addiction was successfully managed inspired me to pursue a career in the field of addiction psychology.

## *What are your research interests?*

I am primarily interested in the interplay of negative health behaviors. An understanding of how negative health behaviors are interconnected



Todd Bishop

is important in deciding how and when interventions and prevention efforts will be most effective. To this end, I am particularly interested in exploring the intersection between substance use, sleep, and suicide. Much of my research experience comes from graduate assistantships with the VA Center for Integrated Healthcare, which has contributed to my focus on creating brief, easily disseminated interventions that can be delivered in the primary care setting.

## *What prompted your interest in looking at these variables (substance use, sleep, and suicide), in particular?*

The rate of completed suicides observed among veterans over the past decade has been alarming. Through my work with Dr. Wilfred Pigeon at the Syracuse VAMC, I have gained an appreciation for the unique contribution that sleep disturbance may make to suicidal ideation. Behavioral interventions designed to address problems with sleep or substance use may provide another avenue through which we can reduce suicidal ideation. Understanding the interrelationship among variables such as substance use, sleep disturbance, and suicide may help inform future prevention efforts.

## *What about your clinical interests?*

I enjoy behavioral sleep medicine and treating clients suffering from posttraumatic stress disorder. Considering that substance use disorders are highly comorbid with these conditions, I find I am able to get the opportunity to work with patients with addictions as well.

## *How did you hear about the Society of Addiction Psychology (SoAP)? What motivated you to join?*

I heard about Division 50 from my graduate advisor, Dr. Stephen Maisto. He encouraged all of his advisees and members of his lab to check out the Division and support its cause. As I plan to make addictions research part of my career, being a member of Division 50 will help me keep informed on the latest innovations in addictions research and any changes in policy.

## *How can the Division help you advance your career or assist with your goals?*

I think the Division has been a good resource for those working in addictions, from both a clinical and a research perspective. It is important for us to have a strong voice within APA and other organizations that can help to communicate the importance of our research, fight for funding, and support those engaged in challenging clinical work. I would like to see continued efforts to facilitate communication between researchers and clinicians. It is important that those delivering interventions have the most efficacious treatment tools available to them, and that clinicians can communicate to researchers what they find useful and areas where the field needs to improve.

## *Is there anything else you would like to share about yourself with other Division 50 members?*

My wife and I are expecting our first child (a girl!) this April. ♡



# Student and Trainee Perspectives

**David Eddie and Lauren Hoffman**

With the Collaborative Perspectives on Addiction conference quickly approaching, we thought it worthwhile to highlight some events that may be of particular interest to SoAP's student members.

Foremost on the agenda are two social events directed toward students and early career professionals. Intended to be informal gatherings, these events are meant to facilitate new, professional relationships. Light food will be provided and a cash bar will be available for all attendees at both events. The first social event will be held on Thursday, February 27<sup>th</sup>, the second will be on the evening of Friday, February 28<sup>th</sup>. Specifics pertaining to

these unique events will be announced in the conference booklet available at the registration desk.

Furthermore, we highly recommend the poster session that will be held on Friday afternoon. Last year's was a great networking event with some of the biggest names in the field sharing libations with the students. Even if you aren't presenting, plan on coming. It'll be worth it.

Finally, don't miss the "Steps Toward Success as an Early Career Addiction Psychologist" panel discussion on Friday from 4 to 5:30 p.m. Navigating the waters of graduate school, post-doctoral fellowships, and early career positions can be tremendously difficult. The goal of this panel discussion is

to provide examples of "success" in this process and to offer attendees the opportunity to discuss topics and pose questions regarding career choices, balancing work and personal life, and more. Chaired by Katie Witkiewitz, PhD, this panel is comprised of several rising stars in the field of addiction psychology, as well as two well-established scientists, including SoAP's current president John F. Kelly, PhD.

And just a reminder, SoAP is offering a free year of membership to all students attending the CPA convention this year, whether they are new or returning members. Application forms will be available at the registration desk.

Hope to see you in Atlanta!ψ

## Announcing Candidates for the SoAP Offices

**Amy Rubin and William Zywiak**  
*SoAP Nominations and Elections Committee*

This year we are voting for President-elect, a Member-at-Large position, and a new APA Council Representative for three year commitments.

We are pleased to announce that **Sherry McKee** is running for President-Elect.

Every year, one of three Member-at-Large offices is on the ballot. This election cycle we are electing the Member-at-Large who serves as a liaison to the APA Public Interest Directorate and works closely with the SoAP Advocacy and Policy Committee. We are pleased to announce that **Joel Grube** will be running for Member at Large—Public Interest.

Thanks to your help on the apportionment ballot, we earned back a second APA Council Representative. We are pleased to announce that **Ray Hanbury** and **James Bray** are running for this position.

Please review the candidates' statements below and on the ballot you receive from APA by email in May. Thank you to those who e-mailed their nominations regarding these four candidates as well as a special thanks to all the candidates for agreeing to volunteer their time and energy to promote the causes of the SoAP. We hope to see you in DC in August!

**Sherry A. McKee, Candidate for President-Elect**

I am honored to be nominated to serve as President-Elect for the American Psychological Association's Society of Addiction Psychology (SoAP). I have been a member of Division 50 since I was a graduate student and appreciate the opportunity to provide service to an organization that has supported and mentored me throughout my career.

My work in the addiction field has spanned several roles over the past 20 years, including research scientist, clinician, administrator, and educator. I am currently an Associate Professor

of Psychiatry, Director of the Yale Behavioral Pharmacology Laboratory, and Director of the FORDD Clinic which is a state-funded outpatient addiction treatment facility. I am also a member of the Board for the Research Society on Alcoholism and have served as a standing member on NIH grant review committees.

My career has focused on the development of clinical and translational research, with an emphasis on developing efficacious treatments for tobacco and alcohol use disorders. I am the PI of an NIH-funded P50 interdisciplinary effort aimed at gender-sensitive medication development for tobacco dependence.

Over my career, I have provided service to our Division in the following ways: I am an Associate Editor of our journal, *Psychology of Addictive Behaviors*, a member of the Awards Committee, and in 2009 was the Program Chair for the APA Convention.

As President, my goals will be to focus on psychology's pivotal role in interdisciplinary team



Sherry A. McKee



Joel Grube



Ray Hanbury



James Bray

approaches to both the science and treatment of addiction. As the true complexity of addiction continues to be revealed, collaboration and cooperation between scientists and clinicians from different disciplines is becoming increasingly necessary to effectively research and treat addiction. As a discipline, psychology has an unusually wide breadth of focus—from molecular biology through to policy—which places us in a unique position to participate in and facilitate team science. I also plan to continue to find new avenues to support and mentor our membership, with an emphasis on training the next generation of addiction psychologists in team sciences approaches.

#### Joel Grube, Candidate for Member-at-Large—Public Interest

I am pleased to be nominated to represent SoAP as Member at Large—Public Interest. I am a social psychologist by training and received my doctorate in 1979 from Washington State University. I am currently Senior Research Scientist and Director of the Prevention Research Center, Pacific Institute for Research and Evaluation (PIRE) in Oakland, CA and Adjunct Professor in the School of Public Health, UC Berkeley. I am also Training Director for the NIAAA Prevention Science Research Postdoctoral Training Program (PIRE and UC Berkeley).

I have been a member of APA since 1979 and a researcher in the field of addictions since the early 1980s. I have served as the Chair of the SoAP Membership Committee since 2008. My research focuses on policy and environmental approaches to

preventing alcohol, tobacco, and other substance use problems among adolescents and young adults.

I am committed to bridging the gap between psychological science and policy as it relates to addictions and, more generally, to health disparities. I strongly believe that psychology has a significant role to play in informing public policies to improve human welfare. I believe that serving as Member at Large—Public Interest is an important opportunity for me to facilitate communication between the APA Public Interest Directorate and SoAP membership about opportunities to get involved with advocacy and legislation. I believe my experiences working in applied multi-disciplinary and international settings will serve me well in this position. For further details regarding my background please see <http://www.pire.org/detail2.asp?core=238&cms=109>.

#### Ray Hanbury, Candidate for Council Representative, Division 50 (Practice)

I am honored to be on the ballot for the Society of Addiction Psychology's (SoAP) Practice section on the APA Council of Representatives. SoAP has special meaning for me as one of the founders of this division, helping to transform the Society of Psychologists in Addictive Behaviors (SPAB) to Division 50 (Addictions) and now SoAP. My record of involvement stems from my time as President of SPAB (1989-1991), President of SoAP (1994-1995), Division 50's Council Representative (2010-2011; 2013), and currently the Division's liaison to CAPP (2014). I

served as the Editor of SPAB Newsletter (1989-1993) and of TAN (1993-1994). I was Associate Editor of SPAB's journal (1987-1991), and served on the Board of Consulting Editors for our Journal.

From the beginning, I have had a significant role in the implementation of the Certificate of Proficiency and am actively involved with our Board in the effort to reinstate this credential. I believe that my record of involvement in our Division, as well as in other APA activities (Disaster Response Network; Committee on Colleague Assistance; two caucuses with Council), and especially having been on Council last year addressing the Good Governance Project are factors that can assist in our efforts to increase the visibility of our division and the importance of incorporating addiction psychologists into addressing the myriad of social concerns that exist in society.

My experience as a clinician, both on the staff of teaching hospitals and in private practice, extends over many years. I am former Director of a Narcotic Rehabilitation Center, and serve as a Court appointed forensic evaluator for substance abuse cases as well as consultant for several state and federal law enforcement agencies. This experience is invaluable in promoting collaboration and integration with other disciplines. It is essential to merge our research findings of evidence-based treatments and interventions into our practice and educate the public regarding health concerns and addictive behaviors.

I would consider it a privilege to continue to be active as your Representative for this Division of dedicated clinicians,



researchers, and educators so that we continue to pursue the mission and vision of SoAP.

### James Bray, Candidate for Council Representative, Division 50 (Practice)

I am running for Council Representative to continue to get things done for YOU and our division. By electing a Council Representative who understands the broad spectrum and diversity of psychology and the unique needs of our division we can make sure that our voice is heard within the APA. As a Member at Large of Division 50, I have learned the specific issues that APA needs to address to support our mission. I have the knowledge, experience and established working relationships to get things done for Division 50.

Unlike other candidates, there will be no learning curve for me. I know how to be an effective Council Representative and can focus efforts on getting more things accomplished for YOU and our profession. My track record as the 2009 APA President is clear and compelling—look at the [2009 APA Annual Report](http://www.apa.org/pubs/info/reports/2009-annual.pdf) (<http://www.apa.org/pubs/info/reports/2009-annual.pdf>)—and I can take this experience and hit the ground running.

I am Associate Professor of Family and Community Medicine and Psychiatry, Baylor College of Medicine and served as the 2009 APA President. I was previously on the faculty at Texas Woman's University. I teach psychology students, resident physicians, and medical students and direct faculty development. My NIH funded research focuses on adolescent substance use, divorce, remarriage and stepfamilies. I

am a pioneer in collaborative healthcare and primary care psychology. I maintain an active clinical practice specializing in children and families and behavioral medicine. I have been active in APA and TPA governance for over 20 years involved in practice, science, education, and state issues. I am also a fellow of 12 APA Divisions (5, 7, 12, 29, 31, 34, 37, 38, 42, 43, 46, 55).

**Internationally Recognized Scholar and Researcher:** Over 180 publications (*Multivariate Analysis of Variance* with Scott Maxwell, SAGE; *Handbook of Family Psychology* with Mark Stanton, Blackwell Publishing). Editorial board member and reviewer for 13 journals. Four NIH grants: Alcohol, Psychosocial Factors and Adolescent Development (two RO1s from National Institute of Alcoholism and Alcohol Abuse); SAMHSA grants on Screening, Brief Intervention and Referral to Treatment (SBIRT).ψ

## APA Convention Update

### Kristina Jackson 2014 APA Convention Program Chair

The 2014 APA Convention will be held in Washington, DC, from August 7th-10th. We've got a fantastic program scheduled for this year, featuring SoAP (Division 50)-sponsored symposia and poster presentations that will be of broad interest to clinicians, policy makers, research scientists, and students. A diverse range of addictive behaviors will be covered, including alcohol and marijuana use, smoking, and other drug problems, as well as disordered gambling and internet addiction.

Many of our presentations are oriented around the theme "Implementation Science and the Practice of Addiction Psychology." Our President, John Kelly, will be presenting a talk entitled "What if We Really Believed Addiction Was a Chronic Disease?" In addition, we are hosting a Roundtable Discussion, "Two Steps Forward, One Step Back? DSM-5 and Addictive Disorders" and researchers at the National Institute

on Drug Abuse will be discussing the evolving role of behavior in science at NIDA.

This year APA has implemented a new initiative to develop cross-cutting themes and enhance integrative collaborative programming across divisions. Along with Division 48 (Peace, Conflict, and Violence) and Division 40 (Clinical Neuropsychology), SoAP is sponsoring a symposium entitled "Considering Cannabis? Potential Public Health Implications of Marijuana Legalization." In addition, along with our division, Division 12 (Clinical Psychology) is sponsoring the symposium "The Roles of Drug and Alcohol Use in Suicidal Behavior" and Division 38 (Health Psychology) is sponsoring the symposium "How Psychology Can Reduce Health Disparities through Proactive Smoking Interventions."

Division 50 has collaborated closely with Division 28 (Psychopharmacology and Substance Abuse) to co-sponsor a total of four symposia and 3 poster sessions, all on cutting-edge developments in

basic and applied research as well as on clinical issues. We are also co-sponsoring a symposium with Division 56 (Trauma Psychology) on treatment for comorbid PTSD and alcohol use disorders. We will also continue to offer a Grant-Writing workshop; unlike in prior years, this workshop is being held during the conference itself.

As in previous years, the SoAP and Division 28, with generous support from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and the National Institute on Drug Abuse (NIDA), will co-sponsor an Early Career Social Hour and Poster Session, during which early career members will have the opportunity to present their work and meet other SoAP members. This is an opportunity to see the work of some of the newest members of the field, and the quality of the work is outstanding. We encourage all of our SoAP members to attend!

Details about the specific times and locations of these events will be published in the Summer issue of TAN



and in the Convention Program. 2014 Convention Facilities include the Walter E. Washington Convention Center, the Grand Hyatt Washington Hotel, the Renaissance Washington DC Hotel, and the Washington Marriott Marquis Hotel. ATTENDEE REGISTRATION BEGINS APRIL 15, 2014.

Last but certainly not least, we would like to thank all of the reviewers who provided expedient and thoughtful reviews. Their feedback was critical for making difficult decisions as we developed this outstanding program. Reviewers include Adam Leventhal, Anne Fernandez, Brian Borsari, Carolina Haass-Koffler, Carolyn Sartor, Cinnamon Bidwell, Carl Lejuez, Clayton Neighbors, Greg Homish, Emily Grekin, Joel Grube, Jane Metrik, Jennifer

Buckman, Jennifer Merrill, James Murphy, James MacKillop, Jen Read, Kevin King, Lara Ray, Melissa Lewis, Mark Wood, Matt Martens, Matt Tull, Marsha Bates, Megan Patrick, Megan Roberts, Nadine Mastroleo, Rebecca Houston, Rina Eiden, Shannon Kenney, Sherry McKee, Susan Luczak, Suzanne Colby, Suzy Bird Gulliver, and Tammy Chung. We would also like to offer a huge thank you to Jennifer Buckman for her behind the scenes contributions to make it all happen.

We look forward to seeing you there! In addition to the Annual Convention, Washington, DC, boasts a huge number of attractions, including cultural and historical landmarks, and myriad forms of family entertainment. These include the world famous Smithsonian Museums;

Botanic Gardens; National Cathedral; the Holocaust Museum; Capitol Hill; the National Zoo; Georgetown shopping and dining; the historic C&O Canal in Georgetown or the scenic Mount Vernon trail, which begins just across the Potomac River near Arlington Cemetery; and many superb theater/ music performances.

#### Future Convention Dates

- August 6-9, 2015  
Toronto, Ontario
- August 4-7, 2016  
Denver, Colorado [ψ](#)



# Psychology of Addictive Behaviors News

## Nancy Petry

Editor-in-Chief, *Psychology of Addictive Behaviors*

I am honored to take over as Editor for *Psychology of Addictive Behaviors (PAB)*. Dr. Maisto, his Associate Editors, Editorial Board, and reviewers, including many Division 50 members, have expertly led the journal for the past six years. I thank them for their service. During their tenure, *PAB* has seen a rapid rise in the number of manuscripts submitted, a tradition I hope to continue.



Nancy Petry

*Psychology of Addictive Behaviors* has a unique niche. It is one of the few outlets for research related to the broader class of addictions, including substance use and gambling disorders, as well as other excessive behaviors such as Internet use, exercise, and food addiction. It includes research of psychological, biological, epidemiological, and social aspects of addiction. I actively encourage submission of manuscripts along all these domains and conditions, and I especially welcome research elucidating common elements and mechanisms underlying addictive behaviors. Additionally, I hope to see an increase in the number of biologically oriented papers, as well as comprehensive review papers and meta-analyses related to topics in addictions.

An important aspect of successful journals involves providing quality and timely reviews to authors. I have convened a high caliber group of Commissioning Editors and Associate Editors who are committed to this process. They are: Carlos Blanco (Columbia University), Tammy Chung (University of Pittsburgh), Jim McKay (University of Pennsylvania), Sherry

McKee (Yale University), Tom Piasecki (University of Missouri), John Roll (Washington State University), Katie Witkiewitz (University of New Mexico), and Mark Wood (University of Rhode Island). We aim for an average turnaround of about 6-8 weeks. We will encourage reviewers to focus upon substantive issues related to the study design and analyses of data, and most importantly, to the clinical or public health significance of the study.

A priority for *PAB* moving forward is to have a low proportion of revise and resubmit decisions. Not requesting revisions of

papers unlikely to make it to the bar for publication in *PAB* will minimize authors' efforts in addressing issues that may not substantially improve the paper, as well as reviewers' burdens related to providing multiple reviews. A revise and resubmit decision will be reserved for papers with a good chance of acceptance, assuming the requested changes are made and the results remain of importance to the field. I also hope to reverse the general trend in publishing of requesting multiple revisions. I, and the Associate Editors, feel comfortable making most decisions following reviews of an initial manuscript and one re-submission. As authors, you should feel assured that you will not be asked to make multiple, minute changes to manuscripts before they are accepted for publication.

Another important focus for *PAB* is to increase the diversity of reviewers. I do hope that all Division 50 members will consider reviewing at least one paper per year for the journal. Please register onto the new system, if you have not already, and indicate that you are willing to serve as a reviewer. Registration should only take a couple of minutes at <http://www.editorialmanager.com/>

adb/. My goal is to not over-burden reviewers who generously donate their time and expertise to the journal. If you are willing and comfortable reviewing only one or two papers a year for the journal, you can note in the system that you are unavailable for future reviews after your reviews (and please do re-review, if invited) are completed. There is also a special designation for "Principal Reviewers" in the journal. If you are interested in becoming a Principal Reviewer and providing comments on five papers a year, please let me know. A journal is a reflection of the persons participating in it. *Psychology of Addictive Behaviors* is Division 50's journal. As a member of this Division, please consider reviewing papers for *PAB*, providing the type of review that you yourself would like to receive as an author. In this manner, we can all make *PAB* a top choice for the highest quality papers in addiction science.

I am also committed to accelerating the careers of promising young scientists into our field. The journal is fortunate to extend, for the first time, one-year appointments as Commissioning Editors to a group of early career researchers. If you know of individuals in their early careers who could enhance our group of peer reviewers, please let me know.


Additionally, I am interested in attracting members of racial and ethnic minority groups as authors, reviewers, and Commissioning Editors. The 2014 Commissioning Editors Board includes over 15% of scientists from racial and ethnic minority backgrounds. My goal is to expand this proportion. If you are a member of a minority group, please do indicate your status on the APA website when you review papers. Please encourage your colleagues to register onto the system as potential reviewers as well.

In the years to come, I plan to work closely with Division 50 to have its members participate actively in all aspects of the journal and its processes.



I would like to use *PAB* as an outlet to focus on timely and important areas. If you have a suggestion for special issues or sections of the journal, please contact me.

I look forward to hearing from all of you—*PAB*'s authors, reviewers, and readers. I am confident that your being an important part of this process will

help the field of addiction science move forward, with the ultimate goal of improving the prevention and treatment of addictive disorders. 

## Development of a Stand-Alone, Smartphone-Based System for Changing Drinking

Patrick Dulin, Vivian Gonzalez, and James Fitterling  
*University of Alaska, Anchorage*

Research has shown that alternatives to traditional, face-to-face delivery of treatment of problematic alcohol use are efficacious and cost effective, whether in the form of bibliotherapy (Apodaca & Miller, 2003) or through technology-based interventions such as self-directed websites (Gainsbury & Blaszczynski, 2011; Hester, Squires, & Delaney, 2005). Additional evidence suggests that people have favorable attitudes regarding technology-delivered interventions with many people preferring to receive help with an addiction through a technology medium (Choo, Ranney, Wong, & Mello, 2012; Postel, de Jong, Cor, & de Haan, 2005). With the advent of smartphones, we now have devices that are heavily used by a majority of Americans (76% of the US population between the ages of 18 and 45 now own a smartphone; Smith, 2013) that can be leveraged to help to fill the gap between the large numbers of people in need and those that receive empirically based help for alcohol problems (Hasin, Stinson, Ogburn, & Grant, 2007). In this article, we discuss a program of

research regarding development and testing of a smartphone-based system for alcohol use problems and describe a new iPhone® app that stems from this foundational research.

Beginning in 2008, we developed a smartphone-based system for alcohol use disorders, the Location-Based Monitoring and Intervention System for Alcohol Use Disorders (LBMI-A). The LBMI-A was developed by adapting empirically supported behavioral and cognitive alcohol interventions for self-administration, while capitalizing on smartphone capabilities. The LBMI-A system included assessment and feedback, as well as seven psychoeducational modules. Tools also were provided that led users through immediate coping strategies during times of need (e.g., while experiencing a craving), as well as monitoring alcohol consumption and ongoing triggers. Weekly feedback reports were provided to system users to track their progress (for an in-depth description of the development and content of the LBMI-A see Dulin, Gonzalez, King, Giroux, & Bacon, 2013).

In the 6-week pilot study the LBMI-A was compared with a web-based brief motivational intervention with established support, the Drinker's Check-up (DCU, Hester et al., 2005; Hester & Squires, 2008) which was supplemented with bibliotherapy (DCU + bib). The bibliotherapy component was added as we anticipated that a brief motivational intervention would be insufficient for our target population of individuals with an alcohol use disorder as opposed to problem drinkers, who have typically been the target of web-based interventions.

Both interventions resulted in large reductions in drinks per week and percent heavy drinking days; however, LBMI-A users showed more rapid change (Dulin, Gonzalez & Campbell, in press; Gonzalez & Dulin, 2014). LBMI-A users also experienced a significant and large increase in their percent days abstinent, while DCU+bib users did not. Frequency of LBMI-A use was also associated with greater improvements. These finding dovetailed with participants' report that they desired greater engagement with the LBMI-A system through continual interactivity, such as increased prompting when system features (such as feedback reports) were available. One barrier to system use during the pilot study was that participants were given an LBMI-A enabled smartphone to carry. Participants overwhelmingly reported that they would have been more engaged with the system had it been an app on their personal phone.

Participants responded to questions regarding how the system was helpful to them in changing drinking. The psychoeducational information provided by the system was noted as particularly valuable in this process, including information on cravings, developing non-drinking activities, and the use of supportive others in change (Dulin, Gonzalez, & Campbell, in press). Participants reported that the LBMI-A was helpful in developing awareness of their alcohol problem and holding them accountable to their goals (Giroux, Bacon, King, Dulin, & Gonzalez, in press). It was clear that while the LBMI-A produced favorable results and participants with an alcohol use disorder were enthusiastic about using a smartphone-based system to

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Figure 1. Example of feedback (user's BAC level flashes).

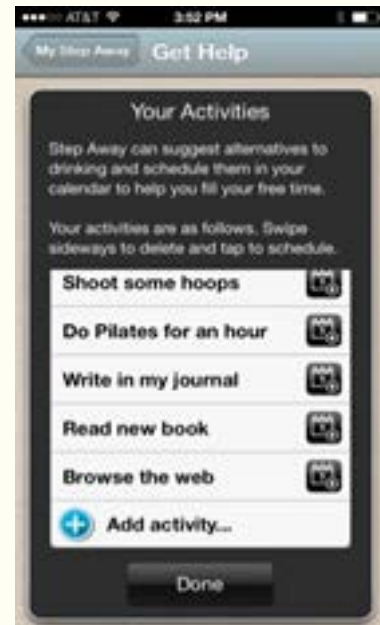


Figure 3. Reminders for making a change and alternative activities to drinking.

receive help with an alcohol problem; numerous improvements to the system were needed.

The focus on developing Step Away, an iPhone® app, was to enhance features of the LBMI-A that were deemed to be helpful and remove those that were either unhelpful or poorly utilized. It contains additional features designed to provide flexible goals, improve user

engagement over time and enhance coping with negative mood.

### Step Away's Approach to Alcohol Intervention

Step Away provides steps and tools that are aimed at enhancing coping, maintaining motivation for change, and enhancing a user's sense of control over their alcohol problem. A full description is beyond the scope of this article, but the primary intervention aims are:

**Enhance awareness of drinking and drinking-related problems.** Step Away begins with assessment and feedback on normative drinking, severity of dependence, and drinking-related problems, as well as the monetary costs of drinking (see Figure 1). At the end of the first module, it provides an outline of the users reported costs and benefits of drinking in the form of a decisional balance exercise and poses the question if they see a need for change. Users are then able to email themselves their "Drinking Profile."

**Establish and monitor progress toward a drinking goal.** Step Away facilitates both abstinence and moderation goals. Users select a goal with input from Step

Away on how likely they are to succeed at moderation based on their severity of dependence on alcohol and guidance on safe drinking. Step Away monitors progress toward goals through daily interviews and provides an extensive weekly report on their drinking, the types of drinking triggers they reported, daily mood, and suggestions for trigger and mood management.

**Manage triggers and other problems using in-the-moment tools.** When a user clicks on the "Get Help" icon, they are provided with strategies for managing cravings or negative affect (e.g., engage in an activity or listen to an urge surfing or progressive muscle relaxation audio file), calling for help (i.e, a support person, suicide prevention), and working through a problem via a problem-solving algorithm. Step Away also alerts a user when their high risk times for drinking are approaching and encourages alternatives to drinking.

**Connect users with other types of support.** Messages regarding the importance of support and even other forms of treatment are woven into Step Away. It contains a module dedicated to identifying support people (e.g., spouses, friends) and if the



Figure 2. Immediate help functions.

user chooses, it will send the support person an email outlining how to be helpful to a loved one with an alcohol problem. Step Away also allows the user to send weekly progress reports to their supportive people or perhaps an interested therapist or physician. Additionally, it provides contact information for other types of treatment including AA, online self-help chats and a service that identifies treatment facilities in their local area.

**Enhance awareness of coping strategies and alternatives to drinking.** Step Away provides psychoeducation modules pertaining to specific strategies for quitting or moderating drinking, managing cravings and negative moods, as well as developing personal reminders for changing drinking (photos, top reasons for change). Step Away also is focused on helping a user to develop activities to replace drinking by selecting and scheduling non-drinking activities into their activity calendar.

#### Future Research

Our research team is planning a rigorous examination of Step Away in comparison to web-based intervention strategies with a long-term follow up. We are also exploring the application of Step Away with new populations and settings. For example, we are currently conducting a feasibility study among a corrections population by assessing variables related to smartphone use, post-release alcohol use and associated

problems, and perceived barriers for using mobile technology for alcohol treatment. Our research will also focus on how individuals use Step Away and which system functions are related to clinical outcome. The outcome of this research will provide further guidance regarding how and for whom smartphone-based alcohol intervention apps are effective.

#### References

- Apodaca, T. R., & Miller, W. R. (2003). A meta-analysis of the effectiveness of bibliotherapy for alcohol problems. *Journal of Clinical Psychology, 59*, 289-304. doi:10.1002/jclp.10130
- Choo, E. K., Ranney, M. L., Wong, Z., & Mello, M. J. (2012). Attitudes toward technology-based health information among adult emergency department patients with drug or alcohol misuse. *Journal of Substance Abuse Treatment, 43*, 397-401. doi:10.1016/j.jsat.2012.09.005
- Dulin, P. L., Gonzalez, V. M., & Campbell, K. (in press). Results of a pilot study of a self-administered smartphone-based intervention system for alcohol use disorders: Usability and early outcomes. *Substance Abuse*.
- Dulin, P. L., Gonzalez, V. M., King, D. K., Giroux, D., & Bacon, S. (2013). Development of a smartphone-based, self-administered intervention system for alcohol use disorders. *Alcoholism Treatment Quarterly, 31*, 321-336. doi:10.1080/07347324.2013.800425
- Gainsbury, S., & Blaszczynski, A. (2011). A systematic review of internet-based therapy for the treatment of addictions. *Clinical Psychology Review, 31*, 490-498. doi:10.1016/j.

- cpr.2010.11.007
- Giroux, D., Bacon, S., King, D., Dulin, P. L., & Gonzalez, V. M. (in press). Examining perceptions of a smartphone-based system for alcohol use disorders. *Telemedicine and E-Health*.
- Gonzalez, V. M., & Dulin, P. L. (2014). *Comparison of a smartphone app for alcohol use disorders with an internet-based intervention plus bibliotherapy*. Manuscript submitted for publication.
- Hasin, D. S., Stinson, F. S., Ogburn, E., & Grant, B. F. (2007). Prevalence, correlates, disability, and comorbidity of DSM-IV alcohol abuse and dependence in the United States: Results from the national epidemiologic survey on alcohol and related conditions. *Archives of General Psychiatry, 64*, 830-842. doi:10.1001/archpsyc.64.7.830
- Hester, R. K., & Squires, D. D. (2008). Web-based norms for the Drinker Inventory of Consequences from the Drinker's Checkup. *Journal of Substance Abuse Treatment, 35*, 322-327. doi:10.1016/j.jsat.2007.10.005
- Hester, R. K., Squires, D. D., & Delaney, H. D. (2005). The Drinker's Check-up: 12-month outcomes of a controlled clinical trial of a stand-alone software program for problem drinkers. *Journal of Substance Abuse Treatment, 28*, 159-169. doi:10.1016/j.jsat.2004.12.002
- Postel, M. G., de Jong, Cor A. J., & de Haan, H. A. (2005). Does E-therapy for problem drinking reach hidden populations? *The American Journal of Psychiatry, 162* doi:10.1176/appi.ajp.162.12.2393
- Smith, A. (2013). *Smartphone ownership - 2013 update*. Retrieved 01/07, 2014, from <http://pewinternet.org/Reports/2013/Smartphone-Ownership-2013.aspx>

## Do Smartphones = Smart Treatment for Nicotine Dependence?

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**Sheryl Catz**  
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This year we celebrate the 50<sup>th</sup> anniversary of the first Surgeon General's Report on Smoking. Over the past five decades, great strides

have been made in treating nicotine dependence, and yet tobacco use remains the leading preventable cause of death and illness in our society (Centers for Disease Control and Prevention, 2011) and a growing public health concern globally. It is estimated that for at least the next 20 years, the smoking prevalence rate will remain at between 20-25% of adults worldwide (Warner, 2013), with higher usage

observed in many developing regions. In short, treating nicotine dependence is an important public health issue nationally and internationally.

The World Health Organization recently concluded that mobile and wireless technologies that address health objectives (mHealth) have the potential to transform the face of health service delivery across the globe (World Health



Organization, 2014). We assert that mHealth interventions, particularly those delivered by smartphones, may offer added benefits in treating nicotine dependence. Below we summarize the key rationale for this assertion, as well as outline gaps and barriers that will need to be addressed before this potential is fully realized.

### Benefits of mHealth Interventions for Tobacco Cessation

mHealth interventions, which include SMS text message programs, smartphone applications, and other internet-based programs accessible by smartphone, have many basic advantages for intervention delivery. Chief among them are the relative low cost of electronic intervention delivery and wide potential reach of these programs. Worldwide more than 6.4 billion people use mobile phones and the number is expected to reach 9.1 billion by 2018. Smartphone use is also on the rise and expected to reach 4.5 billion by 2018 (Ericsson, 2013).

Smartphone applications (“apps”) and Internet-based programs have additional benefits. For example, content can be accessed on-demand, 24/7. This makes the intervention more responsive to individual needs than many traditional tobacco cessation programs which involve one-on-one or group counseling. And unlike traditional self-help materials which are static and one-size-fits all, smartphone programs accessed via the Internet have the capacity to change dynamically in response to an individual’s changing needs. For example, content can be tailored based on one’s individual characteristics (e.g., gender, culture, motivation for quitting) or situational context (e.g., presence of nicotine withdrawal symptoms or smoking lapse).

Because mHealth interventions are accessible when smokers want assistance, not just when it is offered by a counselor or physician, they can adapt to immediately meet an individual’s changing needs. In turn, they may be more acceptable, more engaging, result in greater therapeutic

exposure, and thus, have a greater impact on treatment outcomes than other population-level interventions.

### Gaps, Barriers, & Research Opportunities

Despite the many benefits of mHealth interventions, there are some knowledge gaps and barriers that need to be addressed before mobile interventions can fully reach their public health potential as a treatment tool for nicotine dependence. Data is accumulating on the effectiveness of SMS text message interventions (Head, Noar, Iannarino, & Grant Harrington, 2013), but little is known about the effectiveness of other mobile-based interventions for smoking cessation, particularly smartphone apps and other Internet-enabled interventions accessed by smartphone. Research is needed that not only establishes if smartphone-delivered interventions are effective, but which informs the optimal design features and components of these interventions. That is, future research needs to examine what content and design features increase program utilization and improve treatment outcomes. This knowledge base is more valuable than simply testing the effectiveness of specific mHealth smoking cessation programs, because it can inform the future design of *all* mHealth cessation programs. While still unfamiliar to many researchers and not specific to mobile health interventions, the Multiphase Optimization Strategy offers a principled methodological framework for conducting this important formative work (Baker et al., 2011; Collins et al., 2011; Collins, Murphy, & Strecher, 2007). This framework has already proven to be efficient and useful in beginning to understand the optimal design features of other online cessation programs (McClure et al., 2013; McClure et al., 2012; Strecher et al., 2008; Strecher et al., 2008). Readers are encouraged to consider using this approach in future mHealth addictions research.

Smartphone-based programs also offer the potential to connect smokers with health care providers or health care systems in real time. Facilitating this

communication could further enhance the effectiveness of these programs, but again, important formative design questions need to be addressed to understand how best to design these programs. For example, do smokers’ want to share information with their health care teams in this way? If so, what information should be shared and when? Do health care providers (physicians, tobacco cessation counselors) want to receive electronic communications from smokers’ trying to quit? And how should these services be integrated into the health care systems’ processes? For example, should the mHealth program communicate with one’s electronic medical record or have access to information on one’s pharmacotherapy prescriptions? Future research is needed to understand the potential for integrating mHealth cessation tools into health care service structure and the user requirements for doing so acceptably and effectively.

### Other Considerations

Two additional issues are relevant to anyone designing or using smartphone interventions. The first issue is data security. Smartphone applications and programs which interact with the Internet may store or transmit personally identifiable or otherwise sensitive data. It is important to mitigate the risk of confidentiality breaches in the event that mobile devices are shared, lost or stolen. While the use of encryption protocols should be standard, there are trade-offs between usability and security that need to be carefully considered when making other security-related design decisions. For example, when would it be best practice to use a password-protected log-in, and which types of data can appropriately be resident on a device versus stored on an external server or in “the cloud.”

Finally, researchers and developers should be aware that the design and content of their mHealth programs could have important downstream regulatory implications. The Food and Drug Administration (FDA) has yet to release definitive guidance on which mobile applications qualify as

medical devices and are subject to their regulatory oversight. However, in September 2013 the FDA signaled that they intend to exercise discretion and not enforce regulation for low-risk medical devices, which *may* include many smartphone apps focused on smoking cessation. However, until the FDA's final guidance is released, it is difficult to know if a particular mobile app will be subject to regulation and it can prove time consuming to attempt to track down this answer from the appropriate government officials. Researchers interested in developing new smartphone applications for smoking cessation should keep abreast of the evolving regulatory climate.

## Conclusion

mHealth interventions, particularly those delivered by smartphone, hold great promise for expanding the reach and effectiveness of nicotine dependence interventions. This is a fruitful area of research and could prove to be an important intervention strategy on a global stage, but research needs to both establish the effectiveness of this strategy and inform the optimal design characteristics and content of these programs. We are addressing many of the research gaps raised above in our own research, and we encourage others to do the same.

## References

- Baker, T. B., Mermelstein, R., Collins, L. M., Piper, M. E., Jorenby, D. E., Smith, S. S., . . . Fiore, M. C. (2011). New methods for tobacco dependence treatment research. *Annals of Behavioral Medicine*, 41(2), 192-207. doi: 10.1007/s12160-010-9252-y
- Centers for Disease Control and Prevention. (2011). Vital signs: Current cigarette smoking among adults aged ≥18 years --- United States, 2005-2010. *Morbidity and Mortality Weekly Report (MMWR)*, 60(35), 1207-1212.
- Collins, L. M., Baker, T. B., Mermelstein, R. J., Piper, M. E., Jorenby, D. E., Smith, S. S., . . . Fiore, M. C. (2011). The multiphase optimization strategy for engineering effective tobacco use interventions. *Annals of Behavioral Medicine*, 41(2), 208-226. doi: 10.1007/s12160-010-9253-x
- Collins, L.M., Murphy, S.A., & Strecher, V. (2007). The multiphase optimization strategy (most) and the sequential multiple assignment randomized trial (smart): New methods for more potent ehealth interventions. *American Journal of Preventive Medicine*, 32(5S), S 112-118. doi: 10.1016/j.amepre.2007.01.022
- Ericsson. (2013). Ericsson mobility report: On the pulse of the networked society. Retrieved January 17, 2014, from <http://www.ericsson.com/res/docs/2013/ericsson-mobility-report-june-2013.pdf>
- Head, K. J., Noar, S. M., Iannarino, N. T., & Grant Harrington, N. (2013). Efficacy of text messaging-based interventions for health promotion: A meta-analysis. *Social Science and Medicine*, 97, 41-48. doi: 10.1016/j.socscimed.2013.08.003
- McClure, J. B., Shortreed, S. M., Bogart, A., Derry, H., Riggs, K., St John, J., . . . An, L. (2013). The effect of program design on engagement with an internet-based smoking intervention: Randomized factorial trial. *Journal of Medical Internet Research*, 15(3), e69. doi: 10.2196/jmir.2508
- McClure, J.B., Derry, H., Riggs, K.R., Westbrook, E.W., St. John, J., Shortreed, S., . . . An, L. (2012). Questions about quitting (q2): Design and methods of a multiphase optimization strategy (most) randomized screening experiment for an online, motivational smoking cessation intervention. *Contemporary Clinical Trials*, 33, 1094-1102. doi: 10.1016/j.cct.2012.06.009
- Strecher, V., McClure, J.B., Alexander, G.A., Chakraborty, B., Nair, V., Konkel, J., . . . Pomerleau, O. (2008). The role of engagement in a tailored web-based smoking cessation program: Randomized controlled trial. *Journal of Medical Internet Research*, 10(5), e36. doi: 10.2196/jmir.1002
- Strecher, V.J., McClure, J.B., Alexander, G., Chakraborty, B., Nair, V., Konkel, J., . . . Pomerleau, O. (2008). Web-based smoking cessation programs: Results of a randomized trial. *American Journal of Preventive Medicine*, 34(5), 373-381. doi: 10.1016/j.amepre.2007.12.024
- Warner, K. E. (2013). An endgame for tobacco? *Tobacco Control*, 22 Suppl 1, i3-5. doi: 10.1136/tobaccocontrol-2013-050989
- World Health Organization. (2014). Mobile health (mhealth) for tobacco control. Retrieved January 9, 2014, from <http://www.who.int/tobacco/mhealth/en/index.html>

# Developing a Methamphetamine-abuse Treatment/Intervention App: Expanding Brick-and-Mortar Treatment to mHealth

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## Methamphetamine Use Increases Risk for HIV-Transmission among MSM

Samples of gay and bisexual men, and other men who have sex with men (MSM; note: gay and bisexual refers to men who have adopted a gay or

bisexual identity whereas MSM refers to a behavioral group), demonstrate elevated rates of methamphetamine use and dependence (Forrest et al., 2010; Reback, Shoptaw, & Grella, 2008; Solomon, Halkitis, Moeller, & Pappas, 2012). Qualitative findings suggest that methamphetamine use has a unique significance among MSM, having become intertwined with conceptions of sexual identity, HIV status, and gay culture

(Reback, 1997; Reback, Larkins, & Shoptaw, 2004). Methamphetamine use is strongly associated with HIV infection among MSM due specifically to the high-risk sexual behaviors accompanying its use (Buchacz, et al., 2005; Colfax, et al., 2001; Drumright, Patterson, & Strathdee, 2006; Greenwood, et al., 2001; Hirshfield, Remien, Walavalkar, & Chiasson, 2004; Koblin, et al., 2006; Mimiaga, et al., 2010; Molitor, Traux,

Ruiz, & Sun, 1998; Purcell, Parsons, Halkitis, Mizuno, & Woods, 2001; Reback, 1997; Reback, et al., 2004). Many MSM use methamphetamine specifically as a “sex drug” to heighten and intensify sexual encounters, at times resulting in increased HIV risk behaviors such as sexual marathons with multiple partners (Forrest, et al., 2010; Semple, Strathdee, Zians, & Patterson, 2009; Semple, Zians, Strathdee, & Patterson, 2009). MSM who use methamphetamine are more likely to report unprotected anal intercourse and/or substance use during sex (Bowers, Branson, Fletcher, & Reback, 2012; Carey, et al., 2009; Forrest, et al., 2010; Lim, et al., 2012; Marshall, et al., 2011; Mayer, et al., 2010; Mutchler, et al., 2011; Vosburgh, Mansergh, Sullivan, & Purcell, 2012). Among HIV-negative MSM, methamphetamine use is associated with unprotected serodiscordant receptive anal intercourse (Chen, et al., 2013; Mansergh, et al., 2006; Schwarcz, et al., 2007). Among HIV-infected MSM, methamphetamine use is associated with poorer adherence to antiretroviral therapy (ART) medications (Marquez, Mitchell, Hare, John, & Klausner, 2009; Reback, Larkins, & Shoptaw, 2003), which in turn can lead to increased risk for adverse virologic and clinical outcomes, potentially increasing the likelihood of HIV transmission to sexual partners (Fisher, et al., 2009; Gifford, et al., 2000; Liu, et al., 2001). As a result of these factors, HIV prevalence and incidence are significantly higher among MSM who report frequent use of methamphetamine (Ackers, et al., 2012; Drumright, Gorbach, Little, & Strathdee, 2009; Koblin, et al., 2006; Menza, Hughes, Celum, & Golden, 2009), and HIV prevalence increases as intensity of methamphetamine use increases (Shoptaw & Reback, 2006). As such, methamphetamine use has been identified as a major factor in the transmission of HIV among MSM (Centers for Disease Control and Prevention, 2007).

### Gay and Bisexual Men Are Early Adopters of Technology

As early as 2003, researchers have noted that gay and bisexual consumers

were among the earliest adopters of the Internet for the purpose of sexual partner selection and sexual identity expression (Rosser, Wilkerson, & Smolenski, 2011). MSM frequently use digital spaces such as mobile phone apps, websites, and chat rooms to “hook up” for sex (Reback, Ling, Shoptaw, & Rhode, 2010); these hook-ups frequently occur in conjunction with methamphetamine use (Benotsch, Kalichman, & Cage, 2002; Berg, 2008; Carballo-Diéguez, et al., 2006; Chiasson, et al., 2007; Garofalo, Herrick, Mustanski, & Donenberg, 2007; Kim, Kent, McFarland, & Klausner, 2001; Liao, Millett, & Marks, 2006). Successful mHealth (i.e., Mobile Health) methamphetamine abuse treatment interventions must recognize the ways MSM have integrated technology into their sexual and substance-use behaviors.

### Moving to mHealth

In the qualitative study, *The Social Construction of a Gay Drug*, Reback identified the centrality of three core identities among gay and bisexual male methamphetamine users: 1) sexual identity; 2) identity as a methamphetamine user; and 3) HIV identity (either HIV infected or uninfected; Reback, 1997). Findings from this study were pivotal in informing the development of *Getting Off* (Reback & Shoptaw, 2011; Reback, Veniegas, & Shoptaw, 2013), a culturally relevant, manual-driven, group-based methamphetamine abuse treatment intervention for gay and bisexual males. *Getting Off* is based on the theoretical principles and techniques of cognitive behavioral therapy, as originally incorporated in the Matrix Model (Obert, et al., 2000). *Getting Off* has shown to significantly reduce HIV sexual risks, specifically unprotected receptive anal intercourse, compared to a mainstream cognitive behavioral therapy condition and to produce significantly more methamphetamine-negative urine samples compared to the control condition (Shoptaw, et al., 2005).

As treatment methods and technologies advance, it is incumbent upon

researchers to develop innovative treatment options to meet new needs and overcome emergent challenges. This current study is conducting feasibility research on the translation of *Getting Off* into a cross-platform mobile app able to run on a smartphone or tablet. Methamphetamine use treatment is thus being expanded into the realm of mHealth, which will allow for a widely available treatment opportunity that is both private and individualized. For this formative, feasibility study, one-third of the group-based intervention (8 out of the 24 sessions) will be translated from a group-based intervention to an interactive app format with input from focus group participants. After design and development, the 8 sessions will undergo user pilot testing.

### Core Elements versus Key Characteristics

Core elements of interventions are believed to be responsible for their efficacy and should not be modified. Key characteristics, however, are activities or delivery methods not essential to the core elements or underlying behavioral theory which can be modified for adapted delivery of an intervention. During the adaptation of *Getting Off* for a computerized platform, all core elements are maintained while key characteristics are modified, if needed. The central focus of this tailoring process is to retain the core elements as identified in *The Social Construction of a Gay Drug*, while adapting the intervention for an interactive computerized platform. The following session synopses illustrate how the *Getting Off* intervention uses cognitive behavioral therapy to target both methamphetamine use and concomitant HIV sexual risk behaviors while, simultaneously, integrating the centrality of sexual identity, identity as a methamphetamine user, and HIV identity.

- **External and Internal Triggers:** Participants identify and examine gay-specific events and activities (e.g., gay pride festivals, Halloween, going to a sex club/adult bookstore) and internal messages (e.g., bored, horny) that



can trigger methamphetamine use and/or high-risk sexual activity. The connection between methamphetamine use and HIV sexual risk behavior is explored.

*Core Elements:* Treatment/recovery structure; The meaning of methamphetamine use for the gay and bisexual male user; Emotions and feelings.

*Key Characteristics:* Examples of external events, internal messages, and venues generic to gay culture.

- **Coming Out All Over Again: Reconstructing Your Gay Identity:** Participants examine who in their social network knows (or doesn't know) about his methamphetamine use. Discusses pros and cons of informing others about his drug use. The session provides tailored parallel of "coming out" as a gay or bisexual man and, for those who are HIV infected, "coming out" as HIV positive.

*Core Elements:* Social networks and social support.

*Key Characteristics:* Examples of social networks; Examples of pros and cons.

- **Where Have We Been and Where Are We Heading?:** Participants imagine packing up their methamphetamine "baggage" and sending it away on a train. What are their feelings in doing this? Does the train return? Tailored elements include how sending off their methamphetamine "baggage" can result in increased ART adherence.

*Core Elements:* The meaning of methamphetamine use for the gay and bisexual male user; Emotions and feelings; The personal meaning of a gay or bisexual identity; Relapse prevention.

*Key Characteristics:* Examples of methamphetamine "baggage"; Train imagery.

- **Trigger→Thought→Craving→Use:** The trigger→thought→craving→use cycle is applied to methamphetamine use and intense sexual behaviors. Points of intervention are identified for preventing relapse to both methamphetamine use and HIV sexual risk behaviors.

*Core Elements:* Treatment/recovery structure; The meaning of methamphetamine use for the gay and bisexual male user; Sex and HIV; The personal meaning of a gay or bisexual identity; Relapse prevention

*Key Characteristics:* Specific cognitive behavioral therapy techniques (e.g., snapping, visualization, urge surfing).

An intervention app caters to the needs of the user by offering individualized and private treatment and by allowing users to access help sooner by avoiding delays due to individual and structural limitations such as stigma, waiting lists, and/or geographical locations (Falchuk, Famolari, Fischer, Loeb, & Panagos, 2010; National Institute on Drug Abuse, 2009). Self-administered behavioral assessments and such as methamphetamine abstinence exercises are now carried out in the privacy and location of one's choosing. Although in-person, one-on-one or group therapy substance abuse treatment remains the gold standard of care, treatment is then limited to those who can travel to the treatment setting. Furthermore, a gay-specific treatment intervention such as *Getting Off* is most likely only available in an urban environment with a large gay and bisexual population. The computerized *Getting Off* intervention app is portable, convenient, and private. Thus, treatment can be delivered when it is needed most: On demand.

## References

Ackers, M-L., Greenberg, A. E., Lin, C. Y., Bartholow, B. N., Godman, A. H., Longhi, M., & Gurwith, M. (2012). High and persistent HIV seroincidence in men who have sex with men across

- 47 US cities. *PLoS ONE*, 7(4), e34972. doi:10.1371/journal.pone.0034972
- Benotsch, E. G., Kalichman, S., & Cage, M. (2002). Men who have met sex partners via the Internet: Prevalence, predictors, and implications for HIV. *Archives of Sexual Behavior*, 31(2), 177-183. doi:10.1023/A:1014739203657
- Berg, R. C. (2008). Barebacking among MSM Internet users. *AIDS and Behavior*, 12(5), 822-833. doi:10.1007/s10461-007-9281-0
- Bowers, J. R., Branson, C. M., Fletcher, J. B., & Reback, C. J. (2012). Predictors of HIV sexual risk behavior among men who have sex with men, men who have sex with men and women, and transgender women. *International Journal of Sexual Health*, 24(4), 290-302. doi:10.1080/19317611.2012.715120
- Buchacz, K., McFarland, W., Kellogg, T. A., Loeb, L., Holmberg, S. D., Dilley, J., & Klausner, J. D. (2005). Amphetamine use is associated with increased HIV incidence among men who have sex with men in San Francisco. *AIDS*, 19(13), 1423-1424.
- Carballo-Diéguez, A., Dowsett, G. W., Ventuneac, A., Remien, R. H., Balan, I., Dolezal, C., ... Lin, P. (2006). Cybercartography of popular Internet sites used by New York City men who have sex with men interested in bareback sex. *AIDS Education and Prevention*, 18(6), 475-489. doi:10.1521/aeap.2006.18.6.475
- Carey, J. W., Mejia, R., Bingham, T., Ciesielski, C., Gelaude, D., Herbst, J. H., ... Stall, R. (2009). Drug use, high-risk sex behaviors, and increased risk for recent HIV infection among men who have sex with men in Chicago and Los Angeles. *AIDS and Behavior*, 13(6), 1084-1096. doi:10.1007/s10461-008-9403-3
- Centers for Disease Control and Prevention. (2007). *Methamphetamine use and risk for HIV/AIDS*. Atlanta, GA: U.S. Department of Health and Human Services.
- Chen, Y-H, Raymond, H. F., Grasso, M., Nguyen, B., Robertson, T., & McFarland, W. (2013). Prevalence of predictors of conscious risk behavior among San Franciscan men who have sex with men. *AIDS and Behavior*, 17(4), 1338-1343 doi:10.1007/s10461-012-0169-2
- Chiaasson, M. A., Hirshfield, S., Remien, R., Humberstone, M., Wong, T., & Wolitski, R. (2007). A comparison of on-line and off-line sexual risk in men who have sex with men: An event-based on-line survey. *Journal of Acquired Immune*

- Deficiency Syndromes, 44(2), 235-243. doi:10.1097/QAI.0b013e31802e298c
- Colfax, G. N., Mansergh, G., Guzman, R., Vittinghoff E., Marks, G. Rader, M., & Buchbinder, S. (2001). Drug use and sexual risk behavior among gay and bisexual men who attend circuit parties: A venue-based comparison. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, 28(4), 373-379.
- Drumright, L. N., Gorbach, P. M., Little, S. J., & Strathdee, S. A. (2009). Associations between substance use, erectile dysfunction medication and recent HIV infection among men who have sex with men. *AIDS and Behavior*, 13(2), 328-336. doi:10.1007/s10461-007-9330-8
- Drumright, L. N., Patterson, T. L., & Strathdee, S. A. (2006). Club drugs as causal risk factors for HIV acquisition among men who have sex with men: A review. *Substance Use & Misuse*, 41(10-12), 1551-1601. doi:10.1080/10826080600847894
- Falchuk, B., Famolari, D., Fischer, R., Loeb, S., & Panagos, E. (2010). The mHealth stack: Technology enablers for patient-centric mobile healthcare. *International Journal of E-Health and Medical Communications*, 1(1), 1-17. doi:10.4018/jehmc.2010010101
- Fisher, M., Sudarshi, D., Brown, A., David, P., John, P., Anne, J., ... Deenan, P. (2009). HIV transmission amongst men who have sex with men: Association with antiretroviral therapy, infection stage, viraemia, and STDs in a longitudinal phylogenetic study. Poster presented at: Conference on Retroviruses and Opportunistic Infections; 2009 Feb 8-11; Montréal, Canada.
- Forrest, D. W., Metsch, L. R., LaLota, M., Cardenas, G., Beck, D. W., & Jeanty, Y. (2010). Crystal methamphetamine use and sexual risk behaviors among HIV-positive and HIV-negative men who have sex with men in South Florida. *Journal of Urban Health*, 87(3), 480-485. doi:10.1007/s11524-009-9422-z
- Garofalo, R., Herrick, A., Mustanski, B. S., & Donenberg, G.R. (2007). Tip of the iceberg: Young men who have sex with men, the Internet, and HIV risk. *American Journal of Public Health*, 97(6), 1113-1117. doi:10.2105/Ajph.2005.075630
- Gifford, A. L., Bormann, J. E., Shively, M. J., Wright, B. C., Richman, D. D., & Bozzette, S. A. (2000). Predictors of self-reported adherence and plasma HIV concentrations in patients on multidrug antiretroviral regimens. *Journal of Acquired Immune Deficiency Syndromes*, 23(5), 386-395. doi:10.1097/00126334-200004150-00005
- Greenwood, G. L., White, E. W., Page-Shafer, K., Bein, E., Osmond, D. H., Paul, J., & Stall, R. D. (2001). Correlates of heavy substance use among young gay and bisexual men: The San Francisco Young Men's Health Study. *Drug and Alcohol Dependence*, 61(2), 105-112. doi:10.1016/S0376-8716(00)00129-0
- Hirshfield, S., Remien, R. H., Walavalkar, I., & Chiasson, M. A. (2004). Crystal methamphetamine use predicts incident STD infection among men who have sex with men recruited online: A nested case-control study. *Journal of Medical Internet Research*, 6(4), 42-49. doi:10.2196/jmir.6.4.e41
- Kim, A. A., Kent, C., McFarland, W., & Klausner, J. D. (2001). Cruising on the Internet highway. *Journal of Acquired Immune Deficiency Syndromes*, 28(1), 89-93.
- Koblin, B., Husnik, M. J., Colfax, G. N., Huang, Y., Madison, M., Mayer, K., ... Buchbinder, S. (2006). Risk factors for HIV infection among men who have sex with men. *AIDS*, 20(5), 731-739. doi:10.1097/01.aids.0000216374.61442.55
- Liau, A., Millett, G., & Marks, G. (2006). Meta-analytic examination of online sex-seeking and sexual risk behavior among men who have sex with men. *Sexually Transmitted Diseases*, 33(9), 576-584. doi:10.1097/01.olq.0000204710.35332.c5
- Lim, S. H., Ostrow, D., Stall, R., Chmiel, J., Herrick, A., Shoptaw, S., ... Plankey, M. (2012). Changes in stimulant drug use over time in the MACS: Evidence for resilience against stimulant drug use among men who have sex with men. *AIDS and Behavior*, 16(1), 151-158. doi:10.1007/s10461-010-9866-x
- Liu, H., Golin, C. E., Miller, L. G., Hays, R. D., Beck, K., Sanandaji, S., ... Wenger, N. S. (2001). A comparison study of multiple measures of adherence to HIV protease inhibitors. *Annals of Internal Medicine*, 134(10), 968-977.
- Mansergh, G., Shouse, R. L., Marks, G., Guzman, R., Rader, M., Buchbinder, S., & Colfax, G. N. (2006). Methamphetamine and sildenafil (Viagra) use are linked to unprotected receptive and insertive anal sex, respectively, in a sample of men who have sex with men. *Sexually Transmitted Infection*, 82(2), 131-134. doi:10.1136/sti.2005.017129
- Marquez, C., Mitchell, S. J., Hare, C. B., John, M., & Klausner, J. D. (2009). Methamphetamine use, sexual activity, patient-provider communication, and medication adherence among HIV-infected patients in care, San Francisco 2004-2006. *AIDS Care*, 21(5), 575-582. doi:10.1080/09540120802385579
- Marshall, B. D., Wood, E., Shoveller, J. A., Patterson, T. L., Montaner, J. S., & Kerr, T. (2011). Pathways to HIV risk and vulnerability among lesbian, gay, bisexual, and transgendered methamphetamine users: A multi-cohort gender-based analysis. *BMC Public Health*, 11(1), 20. doi:10.1186/1471-2458-11-20
- Mayer, K. H., O'Cleirigh, C., Skeer, M., Covahey, C., Leidolt, E., Vanderwarker, R., & Safren, S. A. (2010). Which HIV-infected men who have sex with men in care are engaging in risky sex and acquiring sexually transmitted infections: Findings from a Boston community health centre. *Sexually Transmitted Infections*, 86(1), 66-70. doi:10.1136/sti.2009.036608
- Menza, T. W., Hughes, J. P., Celum, C. L., & Golden, M. R. (2009). Prediction of HIV acquisition among men who have sex with men. *Sexually Transmitted Diseases*, 36(9), 547-555. doi:10.1097/OLQ.0b013e3181a9cc41
- Mimiaga, M. J., Reisner, S. L., Fontaine, Y. M., Bland, S. E., Driscoll, M. A., Isenberg, D. ... Mayer, K. H. (2010). Walking the line: Stimulant use during sex and HIV risk behavior among Black urban MSM. *Drug and Alcohol Dependence*, 110(1-2), 30-37. doi:10.1016/j.drugalcdep.2010.01.017
- Molitor, F., Truax, S. R., Ruiz, J. D., & Sun, R. K. (1998). Association of methamphetamine use during sex with risky sexual behaviors and HIV infection among non-injection drug users. *Western Journal of Medicine*, 168(2), 93-97.
- Mutchler, M. G., McKay, T., Candelario, N., Liu, H., Stackhouse, B., Bingham, T., & Ayala, G. (2011). Sex drugs, peer connections, and HIV: Use and risk among African-American, Latino, and Multiracial young men who have sex with men in Los Angeles and New York. *Journal of Gay & Lesbian Social Services*, 23(2), 271-295. doi:10.1080/10538720.2011.560100
- National Institute on Drug Abuse. (2009). Principles of drug addiction treatment: A research based guide. 2nd ed. Washington, DC: National Institutes of Health.
- Obert, J. L., McCann, M. J., Marinelli-Casey, P., Weiner, A., Minsky, S., Brethen, P., & Rawson, R. (2000). The Matrix model of outpatient stimulant abuse treatment: History and description. *Journal of Psychoactive Drugs*. 2000;32(2), 157-

64. doi:10.1080/02791072.2000.10400224
- Purcell, D. W., Parsons, J. T., Halkitis, P. N., Mizuno, Y., & Woods, W. J. (2001). Substance use and sexual transmission risk behavior of HIV-positive men who have sex with men. *Journal of Substance Abuse*, 13(1-2), 185-200. doi:10.1016/S0899-3289(01)00072-4
- Reback, C. J. (1997). The social construction of a gay drug: Methamphetamine use among gay and bisexual males in Los Angeles. Retrieved from [http://www.friendscommunitycenter.org/documents/Social\\_Construction\\_of\\_a\\_Gay\\_Drug.pdf](http://www.friendscommunitycenter.org/documents/Social_Construction_of_a_Gay_Drug.pdf).
- Reback, C. J., Larkins, S., & Shoptaw, S. (2003). Methamphetamine abuse as a barrier to HIV medication adherence among gay and bisexual men. *AIDS Care*, 15, 775-785. doi:10.1080/09540120310001618621
- Reback, C. J., Larkins, S., & Shoptaw, S. (2004). Changes in the meaning of sexual risk behaviors among gay and bisexual male methamphetamine abusers before and after drug treatment. *AIDS and Behavior*, 8(1), 87-98. doi:10.1023/B:AIBE.0000017528.39338.75
- Reback, C. J., Ling, D., Shoptaw, S., & Rohde, J. (2010). Developing a text messaging risk reduction intervention for methamphetamine-using MSM: Research note. *Open AIDS Journal*, 4, 116-122. doi:10.2174/1874613601004030116
- Reback, C. J., & Shoptaw, S. (2011). Development of an evidence-based, gay-specific cognitive behavioral therapy intervention for methamphetamine-abusing gay and bisexual men. *Addictive Behaviors*. Advance online publication. doi:10.1016/j.addbeh.2011.11.029
- Reback, C. J., Shoptaw, S., & Grella, C. E. (2008). Methamphetamine use trends among street-recruited gay and bisexual males, from 1999 to 2007. *Journal of Urban Health*, 85(6), 874-879. doi:10.1007/s11524-008-9326-3
- Reback, C. J., Veniegas, R., & Shoptaw, S. (2013). Getting Off: The development of a model program for gay and bisexual male methamphetamine users. *Journal of Homosexuality*. Advance online publication. doi:10.1080/00918369.2014.865459
- Rosser, B. R., Wilkerson, J. M., & Smolenski, D. J. (2011). The future of Internet-based HIV prevention: A report on key findings from the Men's INternet (MINTS-I, II) sex studies. *AIDS and Behavior*, 15(Suppl 1), 91-100. doi:10.1007/s10461-011-9910-5
- Schwarcz, S., Scheer, S., McFarland, W., Katz, M., Valleroy, L., Chen, S., & Catania, J. (2007). Prevalence of HIV infection and predictors of high-transmission sexual risk behaviors among men who have sex with men. *American Journal of Public Health*, 97, 1067-1075. doi:10.2105/AJPH.2005.072249
- Semple, S. J., Strathdee, S. A., Zians, J., & Patterson, T. L. (2009). Sexual risk behavior associated with co-administration of methamphetamine and other drugs in a sample of HIV-positive men who have sex with men. *The American Journal on Addictions*, 118(1), 65-72. doi:10.1080/10550490802544466
- Semple, S. J., Zians, J., Strathdee, S. A., & Patterson, T. L. (2009). Sexual marathons and methamphetamine use among HIV-positive men who have sex with men. *Archives of Sexual Behavior*, 38(4), 583-590. doi:10.1007/s10508-007-9292-y
- Shoptaw, S., & Reback, C. J. (2006). Associations between methamphetamine use and HIV infection among men who have sex with men: A model for guiding public policy. *Journal of Urban Health*, 83(6), 1151-1157. doi:10.1007/s11524-006-9119-5
- Shoptaw, S., Reback, C. J., Peck, J. A., Larkins, S., Freese, T. E., & Rawson, R. A. (2005). Getting Off: A behavioral treatment intervention for gay and bisexual male methamphetamine users. Los Angeles, CA: Friends Research Institute, Inc. Retrieved from [http://www.friendscommunitycenter.org/reports\\_and\\_manuals.html](http://www.friendscommunitycenter.org/reports_and_manuals.html)
- Solomon, T. M., Halkitis, P. N., Moeller, R. W., & Pappas, M. K. (2012). Levels of methamphetamine use and addiction among gay, bisexual, and other men who have sex with men. *Addiction Research & Theory*, 20(1), 21-29. doi:10.3109/16066359.2011.552816
- Vosburgh, H. W., Mansergh, G., Sullivan, P., & Purcell, D. (2012). A review of the literature on event-level substance use and sexual risk behavior among men who have sex with men. *AIDS and Behavior*, 16(6), 1394-1410. doi:10.1007/s10461-011-0131-8

## iSelfChange: An Evidence-Based iPhone App for Reducing Drinking

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In the alcohol field, self-change—recovering from an alcohol problem without treatment—is a well-documented and common phenomenon. Many who drink at high-risk levels, particularly young adults whose problems are not severe, do not seek treatment due to stigma and feeling that current services are too intense for their problem. In an effort to reach young risky drinkers, our research team developed an iPhone and iPad app, *iSelfChange*, and conducted a randomized controlled

trial investigating its efficacy. The app helps drinkers monitor their drinking and evaluate their motivation, and it provides practical tips for changing (see screenshots in Figure 1). Real-time mobile technology (e.g., smartphone apps) is widely used by young adults and is easily accessed 24 hours a day. While there is no shortage of free apps for changing and monitoring a variety of behaviors, evidence-based apps aimed at changing health behaviors, including alcohol use, are rare.

**Design:** Potential participants were recruited over 4 weeks using Craigslist ads. Interested participants accessed

the prescreening questionnaire at the SurveyMonkey website. 126 participants (from 26 states) who completed an assessment and met all screening criteria were blocked by gender and randomized into one of two groups in terms of how the intervention was delivered: **iPhone app**, and **eMail-pdf**. Participants received a \$15 Amazon gift card at study entry and \$15 for completing the follow-up also conducted at Survey Monkey.

**Participants:** 65% of participants were female; 58% had completed university, 21% were married, mean (*SD*) age = 26.7 (3.8) years, racial identification:



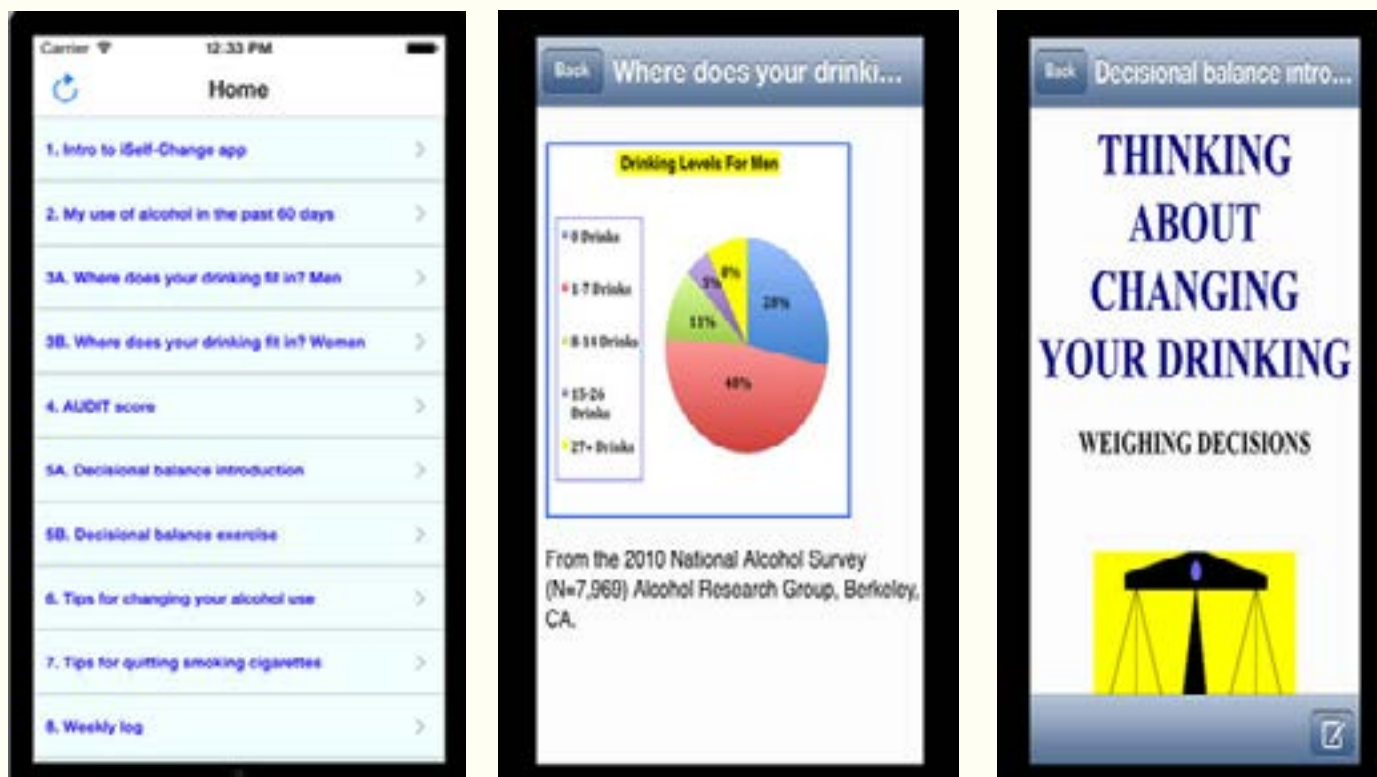


Figure 1. Screenshots of the iSelfChange app.

67% Caucasian, 14% African American/Black, 8% Hispanic, 12% other. Their mean (SD) AUDIT score was 19 (6.3) [range: 0-40;  $\geq 8$  = *suggestive of a problem*], 23% characterized their drinking at assessment as a *major/very major* problem, and participants reported having an alcohol problem for a mean (SD) of 3.7 (3.1) years. No significant ( $p > .05$ ) differences between the groups were found for drinking and nondrinking pre-intervention variables. 89% (113/126) participated in the 2 month follow-up.

**Results:** No significant ( $p > .05$ ) outcome differences were found between the two groups, but as shown in the table

below both groups showed significant ( $p < .05$ ) reductions in alcohol use and alcohol-related consequences pre-post intervention.

**Discussion.** This study, the first to evaluate an evidence-based smartphone app for changing one's alcohol use, found that young adults who received the intervention, whether delivered through an iPhone app or email, significantly reduced their drinking 60 days pre to 60 days postintervention. Unlike other interventions, iSelfChange is unique as apps are available 24/7, confidential, and are a non-stigmatizing way of helping people change their drinking.

Evaluation of this app needs to be replicated with a larger number of individuals of all ages, those with more serious alcohol problems, over a longer time period, and extended to other smartphones.

**Availability and Dissemination:** This app can be widely disseminated and easily accessed. It is now freely available at the iTunes store. To obtain the app click on the link below.

<https://itunes.apple.com/us/app/i-selfchange/id761033899?ls=1ψ>

Table 1. Drinking outcomes pre- and post the intervention.

Variable	iPhone (n = 56)		eMail (n = 57)	
	Pre-Interv 60 days	Post-Interv 60 days	Pre-Interv 60 days	Post-Interv 60 days
M (SD) drinks/drink day	4.63 (1.79)	3.47 (1.83)	4.39 (1.59)	3.32 (1.71)
M (SD) drinks/week	15.40 (7.28)	10.18 (6.31)	15.36 (6.16)	10.22 (6.77)
% days abstinent	33.84%	50.39%	37.23%	52.53%
M (SD) alc conseq	3.50 (2.11)	1.39 (1.58)	3.59 (2.12)	1.75 (1.76)

# An RCT of Text Messaging (SMS) for Reducing Underage Alcohol Use Among Hispanic Adolescents

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This article discusses the rationale behind and methodology associated with an ongoing randomized controlled trial (RCT) of text messaging (SMS) for reducing underage alcohol use problems among Hispanic teenagers. Underage alcohol use is common. In 2012, 63.5% of high school seniors reported past year alcohol use (Johnston, O'Malley, Bachman, & Schulenberg, 2013), almost a quarter of whom reported past month binge drinking (Centers for Disease Control & Prevention, 2012), and 90.6% agreed that alcohol is easy to acquire (Johnston et al., 2012). Adolescent alcohol use is also dangerous. It poses significant risks for health, cognitive and psychiatric functioning, is a marker for other unhealthy and risky behaviors, and often goes undetected in adolescent medicine settings. Because of its massive public health significance, the U.S. Surgeon General issued a 94-page Call to Action to Prevent and Reduce Underage Drinking (USDHHS, 2007). In it, Acting Surgeon General Moritsugu notes "an unmet need for screening, referral, and treatment of adolescent AUDs and associated behavioral problems" (p. 32).

While underage drinking cuts across racial/ethnic lines, Hispanic 8th graders report greater alcohol involvement (i.e., more frequent drinking, binge drinking, & drunkenness) than do their Black and non-Hispanic White

counterparts (Johnston et al., 2012). By 12th grade, Hispanics report alcohol involvement roughly equal to non-Hispanic Whites. Johnston et al. suggest that this change in ranking may reflect (a) the considerably higher school dropout rates of Hispanic youth, with those most alcohol involved being most likely to dropout, or (b) precocious initiation of alcohol (and other drug) use among Hispanics. Either way, it appears that Hispanic adolescents, compared to Black and non-Hispanic White adolescents, are at heightened risk for alcohol and alcohol-related problems

## Adolescent Medicine Patients

Adolescent medicine (AM) incorporates aspects of gynecology, endocrinology, sports medicine, nutrition, dermatology, and psychology, and addresses issues with a high teenage prevalence such as substance abuse, acne, eating disorders, sexually transmitted disease, and birth control. In our Ware Foundation supported study, participants are being recruited from the Division of Adolescent Medicine at Miami Children's Hospital. Division services include: Substance Abuse Assessment and Intervention; Family Planning Services; Evaluation and Treatment of Sexually Transmitted Infections; Pubertal and Menstrual Concerns; Medical Care for Acute and Chronic Illness; Behavioral Issues and Interventions; Eating Disorders; and Smoking/Tobacco Cessation. Patients range in age from 10-21 years, and as with most adolescent medicine programs, 80% are female. Moreover, 60% were Medicaid recipients, and 80% are Hispanic, of whom 45% were born in the US, 22% in Cuba, and 33% in other Latin American countries. Division patients are routinely seen for two appointments: (1) a diagnostic/treatment recommendation appointment, and (2) a follow-up/treatment progress appointment

six months later. Intake assessment involves a standardized, structured health evaluation, including questions about underage drinking and negative consequences related to alcohol use.

## Text Messaging as an Intervention for Underage Drinking

There is growing evidence that text messaging—"short message service" (SMS)—is a useful tool for health promotion and behavior change. SMS text messaging is the most widely used data service in the world with nearly 2.5 billion users (74% of all cell phone users). Some of the advantages of SMS include its low message cost, ability to send messages to multiple recipients immediately and concurrently, and ability to standardize and automate health message delivery. SMS interventions appear to be particularly well-suited for use with teenage populations. According to the Pew Internet & American Life Project (2013), SMS has become the preferred channel of basic communication among adolescents—78% of U.S. 12-17-year-olds now own cell phones.

We assembled a set of 37 adolescent alcohol text messages from two sources: (1) the mHlth4Yth service (The Mobile Health for Youth and Families Institute, n.d.) and (2) the empirical literature on SMS interventions with teens. The SAMHSA-supported mHlth4Yth service involves age-graded (middle vs. high school) "health and wellness" SMSs focusing on knowledge, self-efficacy, decision making, high risk events (e.g., New Year's Eve), and social support vis-à-vis mental health, sexual health, and alcohol/substance use. For our SMS set, we selected the mHlth4Yth SMSs that mentioned alcohol, and merged that with our own all-inclusive database of alcohol SMSs tested to date.

With AM patient volunteers, we conducted and audio-recorded focus

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groups exploring each SMS and the project procedures (e.g., optimal delivery frequency of messages). An iterative qualitative approach was utilized for analyzing the data audio recordings. Final revisions were made once data saturation was reached, and included SMSs such as: “Trust yourself to make good choices. Real friends will respect your decision to not get drunk,” and “Using alcohol or drugs hurts a person’s judgment and increases chances of making bad decisions.” Since our sample is predominantly Hispanic, we anticipated that a small minority would prefer to receive SMS’s in Spanish rather than English. To this end, we translated our SMS set into Spanish (e.g., “Confía en ti mismo para tomar buenas decisiones—Verdaderos amigos le respetará su decisión de no emborracharse,” and “Usando alcohol o drogas perjudica al juicio de la persona y aumenta las posibilidades de tomar malas decisiones.”

#### Linkage to SMS Protocol

SMS text messages are typically sent from one mobile device to another, although they can be sent from computers over the Internet using “gateways” to move them to the mobile communications network. When sending messages to patients, the requirements for providing strict privacy protections mandate the use of server-originated messaging. In the current project, we are using a

dedicated server securely housed in our university offices. The technology we are employing is widely available, relatively inexpensive, highly secure, and ultimately transportable across a variety of clinical settings serving adolescents.

#### Concluding Remarks

SMS intervention holds great potential for helping to reduce the public health burden associated with underage alcohol use among adolescents. While the appeal and currency of SMS-based interventions for underage drinking are undeniable, randomized clinical trials (RCTs) of such approaches are few in number. Recently, our research group has embarked upon a randomized controlled trial (RCT) testing text messaging (SMS) for reducing underage alcohol use problems among Hispanic teenagers. We are pleased to have received Ware Foundation support for this endeavor. The study is testing the following three hypotheses:

1. Youth ( $n = 200$ ) who receive alcohol prevention SMSs will demonstrate greater reductions in alcohol use and alcohol use negative consequences compared than youth ( $n = 200$ ) who receive no alcohol SMSs.
2. Text-related reductions in underage drinking will generalize to and predict reductions in associated adolescent problem behaviors including risky sex,

smoking, and other drug use.

3. The text messaging protocol will be equally effective across racial/ethnic, age, and gender groups.

#### References

- Centers for Disease Control and Prevention. (2012). Youth risk behavior surveillance – United States, 2011. *Morbidity and Mortality Weekly Report*, 61(SS-4):1-162.
- Johnston, L. D., O’Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2012). Monitoring the Future national survey results on drug use, 1975-2011. Volume I: Secondary school students. Ann Arbor: Institute for Social Research, The University of Michigan
- Johnston, L. D., O’Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2013). Monitoring the Future national results on drug use: 2012 Overview, Key Findings on Adolescent Drug Use. Ann Arbor: Institute for Social Research, The University of Michigan.
- The Mobile Health for Youth and Families Institute (n.d.). mHlth4Yth: Text Messaging Service. Retrieved February 10, 2014, from <http://www.mobilehealth4youth.org/products-services/>.
- Pew Internet & American Life Project (2013) [http://www.pewinternet.org/-/media//Files/Reports/2013/PIP\\_TeensandTechnology2013.pdf](http://www.pewinternet.org/-/media//Files/Reports/2013/PIP_TeensandTechnology2013.pdf)
- U.S. Department of Health and Human Services. (2007). The Surgeon General’s Call to Action to Prevent and Reduce Underage Drinking. U.S. Department of Health and Human Services, Office of the Surgeon General. [ψ](#)

## Developing a Smartphone App to Promote Reductions in Marijuana Use: Initial Steps

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Marijuana is the most commonly used illicit drug in the U.S. (Substance Abuse and Mental Health Services Administration [SAMHSA], 2012). The percentage of young adult marijuana users (ages 18-25) has increased from 13% (1996) to 19% (SAMHSA, 2011). This increase is cause for concern due to the

association between frequent/heavy marijuana use and both physical and psychological negative consequences, including respiratory (Tetrault et al., 2007) and neurocognitive problems (Earleywine, 2002), exacerbation of some mental illnesses (Moore et al., 2007), lower IQ and academic achievement (Gledhill-Hoyt, Lee, Strote & Weschler, 2000), and higher frequency of hard drug (e.g., cocaine) use in the past year (Ellickson, Martino, & Collins, 2004). Individuals who

begin using marijuana in adolescence face a one in six risk of dependence (Anthony, 2006). Daily use of marijuana also increases individuals’ risk for dependence to 33% - 50% (Hall & Pacula, 2003).

With the increasing prevalence and acceptance of marijuana use among the general public, and proponents of marijuana legalization citing purported benefits, an increasing number of states have been legalizing or considering



legalization of marijuana (Office of National Drug Control Policy [ONDCP], 2014). Currently, there are 20 states + D.C. that have made marijuana use legal for medical purposes, 9 states with pending legislation to legalize medical marijuana, and 2 states that have legalized marijuana for recreational use (ProCon.org, 2014). As availability of marijuana increases, so too does the potential for users to experience marijuana-related negative consequences and possible dependence. However, few effective interventions currently exist to help marijuana users to reduce their use and avoid or lessen negative outcomes.

Recent advancements in computing and mobile technology hold promise for the treatment of substance use, including marijuana abuse and dependence. Specifically, the ubiquity of mobile technology provides the opportunity to widely disseminate interventions at relatively low cost and engage traditionally vulnerable or hard-to-reach populations. The increased popularity and use of smartphones (e.g., iPhones and Androids) among young adults represents an exciting opportunity to reach substance users at risk for problems. Smartphones can be used as a platform for delivering interventions via applications (apps), which can be used in total privacy, at an individual's own convenience, in real-world settings and in real-time, such as when they are about to use marijuana or face high-risk situations

for marijuana use.

During the past two decades, our research group has been involved in the use of mobile technologies to collect ecological momentary assessment (EMA) data, including the use of cellular phones and interactive voice response technology to study young adult substance use (e.g., Collins & Muraven, 2007). Most recently, we have collected EMA data from several samples of young-adult regular ( $\geq 3$ x/week) marijuana users who were given research cell phones for 2-3 weeks to report on aspects of their marijuana use in real time. The young adult participants in our studies show high compliance with our EMA protocols, partly due to the appeal of cellular phones to this age group. Our research team also has experience developing and testing brief MI-based interventions for young-adult substance users (Collins et al., 2010). The work we present here combines our previous experience in each of these areas by incorporating a popular innovation in mobile technology, a smartphone app, into a brief intervention for young adult marijuana users who wish to reduce their marijuana use.

### Overview of Current Research

The focus of our current research is to use mobile technology to help young-adult regular marijuana users who wish to reduce their marijuana use. Traditional approaches to treatment require the marijuana user to come to the practitioner, an approach that can limit access to interventions, especially among young adults. Consistent with other researchers who are embracing the use of mobile technology in changing a variety of maladaptive behaviors (Trull, Ebner-Premier, Brown, Tomko, & Scheiderer, 2012), we decided to integrate mobile technology into ongoing assessment and a brief intervention to provide support for regulating/reducing marijuana use. The brief (4-session) intervention is based on a motivational interviewing (MI) approach. The research participants will complete four in-person, MI-based sessions with trained therapists. Individual therapy sessions will include

a marijuana check-up to create awareness of the need for change, as well as topics such as ambivalence about change, coping with urges to use marijuana and avoiding high-risk situations. The app will be tested in a Stage 1 efficacy study, in which we plan to recruit a total of 40 marijuana users interested in cutting down on their marijuana use. These participants will be randomized into either an intervention group that includes use of the app along with an emphasis on exercise/physical activity (PA) as a positive alternative to marijuana use, or a control group that will use the app but will receive general health information not related to exercise/PA. Participants in *both* conditions will use the new smartphone app to provide real-time reports on the antecedents, correlates and consequences of their marijuana use during the 4-week intervention and at 1-, 3-, and 6-month follow-ups.

### App Development and Specifications

To develop the app, our research group is working with Radiant Creative Group ([www.radiantexp.com](http://www.radiantexp.com)). The components of the app will include: the collection of EMA data (including random prompting and episode-specific reports before and after marijuana use); information from each intervention session, which will be loaded cumulatively; basic facts about the effects of marijuana; tips and reminders related to reducing marijuana use; and so on. The phone also will be loaded with apps that promote exercise/PA, which our ongoing behavioral economics research with marijuana users suggests may serve as a positive alternative to marijuana use (Collins, Vincent, Yu, Liu, & Epstein, in press). We think that our use of apps will provide access to multiple sources of information in a flexible format that is user-friendly and provides real-time access to information in real-world settings. We are designing the app to appeal specifically to young adults. The app will be convenient to use, readily accessible and have the ability to personalize information and tailor messages based on user responses. It will include a marijuana-

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use tracker based on self-reported use in real-time interviews. For participants in the intervention condition, the app also will include content that promotes exercise/PA, such as tailored messages to promote exercise instead of marijuana use when participants report that they are craving marijuana.

In all stages of the development of the app, we are incorporating input and feedback generated from representative marijuana users who provide feedback on each iteration/version of the prototype. Given the confidentiality concerns raised by focus groups, feedback from marijuana users will be collected individually. Assessments of the feasibility of, and satisfaction with, the new app will include users' frequency of engagement with the app, as well as their ratings of ease of use and helpfulness of content.

The use of a smartphone app is innovative in that it utilizes state-of-the-science methods to collect data and to provide intervention strategies in real-time. Although the researcher retains control of the content, thereby increasing fidelity and ensuring that information and resources are appropriate, the app allows for personalized elements that appeal to young adults. Participant privacy and confidentiality concerns due to the (mostly) illicit nature of marijuana use are alleviated by the fact that they are not required to provide identifying information to use the app, and they control access to the app via their smartphones.

## References

Anthony, J.C. (2006). The epidemiology of cannabis dependence. In R.A.

Roffman & R.S. Stephens (Eds.), *Cannabis dependence: Its nature, consequences and treatment* (pp. 59-105). Cambridge, UK: Cambridge University Press.

Collins, R. L., & Muraven, M. (2007). Ecological momentary assessment of alcohol consumption. In A. A. Stone, S. Shiffman, A. A. Atienza, & L. Nebeling (Eds.), *The science of real-time data capture: Self reports in health research* (pp. 189-203). New York: Oxford University Press.

Collins, R. L., Vincent, P. C., Dermen, K.H., Vetter, C. J., Wilson, S. D., & Smith, J. M. (2010, June). A daily process approach to evaluating three brief motivation-based interventions to reduce young adults' alcohol use. In A. Cohn (Chair), *Advancing alcohol treatment outcomes using daily data collection approaches: Current applications, methodological considerations, and future directions*. Research Society on Alcoholism, San Antonio, TX.

Collins, R. L., Vincent, P. C., Yu, J., Liu, L., & Epstein, L. H. (in press). A behavioral economic approach to assessing demand for marijuana. *Experimental and Clinical Psychopharmacology*.

Earleywine, M. (2002). *Understanding marijuana: A new look at the scientific evidence*. New York: Oxford University Press.

Ellickson, P.L., Martino, S.C., & Collins, R.L. (2004). Marijuana use from adolescence to young adulthood: Multiple development trajectories and their associated outcomes. *Health Psychology, 23*, 299-307.

Gledhill-Hoyt, J., Lee, H., Strote, J., & Weschler, H. (2000). Increased use of marijuana and other illicit drugs at US colleges in the 1990s: Results of three national surveys. *Addiction, 95*, 1655-1667.

Hall, W.D., & Pacula, R.L. (2003). *Cannabis use and dependence: Public health and public policy*. Cambridge, UK: Cambridge University Press.

Moore, T.H., Zammit, S., Lingford-Hughes,

A., Barnes, T.R., Jones, P.B., Burke, M., & Lewis, G. (2007). Cannabis use and risk of psychotic or affective mental health outcomes: A systematic review. *Lancet, 370*(9584), 319-328.

Office of National Drug Control Policy (ONDCP). Marijuana resource center. Retrieved January 24, 2014 from <http://www.whitehouse.gov/ondcp/marijuanainfo>

ProCon.org. (2014). 20 legal medical marijuana states and DC: Laws, fees and possession limits. Retrieved January 25, 2014 from <http://medicalmarijuana.procon.org/>

Substance Abuse and Mental Health Services Administration (SAMHSA). *Results from the 2010 National Survey on Drug Use and Health: Summary of National Findings*, NSDUH Series H-41, HHS Publication No. (SMA) 11-4658. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2011.

Substance Abuse and Mental Health Services Administration (SAMHSA). *Results from the 2011 National Survey on Drug Use and Health: Summary of National Findings*, NSDUH Series H-44, HHS Publication No. (SMA) 12-4713. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2012.

Tetrault, J. M., Crothers, K., Moore, B. A., Mehra, R., Concato, J., Fiellin, D. A. (2007). Effects of marijuana smoking on pulmonary function and respiratory complications: A systematic review. *Archives of Internal Medicine, 167*, 221-228. doi:10.1001/archinte.167.3.221

Trull, T. J., Ebner-Priemer, U.W., Brown, W.C., Tomko, R. L., Scheiderer, E. M. (2012). Clinical psychology. In M. R. Mehl & T. S. Conner (Eds.) *Handbook of research methods for studying daily life* (pp. 620-635). New York: Guilford Press. ♡

# Addiction in the Digital Age

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## Rethinking Addiction

When people hear the word *addiction*, they typically think about those who struggle pathologically with mood

altering substances like alcohol, nicotine, prescription meds, and illicit drugs. Only in the last 25 years or so has the addiction treatment field (sometimes grudgingly) moved beyond this limited definition to address addictions to mood altering *experiences* like gambling, video gaming, spending, and being sexual. Importantly, over

the past few years researchers have provided significant insight into the ways that both substances and *emotionally arousing/numbing behaviors* affect the human brain. This insight has profoundly expanded our understanding of how addictions work, allowing the scientific and medical communities to address not only substance use disorders, but

addictive patterns of behavior. Perhaps the best current definition of addiction was provided in 2011 by the American Society of Addiction Medicine:

Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry.... This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors (American Society of Addiction Medicine, 2011).

### Human Technology Escalates Addiction

As suggested in my recently released book, *Closer Together, Further Apart*, addictions, when viewed from a historical standpoint, are now and have always been propelled by technological advances (Weiss & Schneider, 2014). Consider the organic form of cocaine, the coca leaf. Back in the day, how many coca leaves did a person have to chew to become addicted? Since chewing coca leaves evokes an experience much like drinking a cup of coffee, probably quite a few. In other words, coca leaves weren't much of a problem until humans developed the ability (the technology) to refine those leaves into the intensified powder we now call cocaine. Pornography provides a similar example. In prehistoric days, how many naked cave paintings did one have to view before becoming a porn addict? In all likelihood it was only after a major technological leap in the 1800s—the development of still photography (and later the development of moving pictures)—that pornography became an addiction issue. Similar stories could be told about the technological refinement of tobacco, alcohol, wheat, sugar, opiates, and many other products. My point here is that even though much of the risk for addiction is genetic, advances in technology have always increased that risk.

This trend is especially true of the Internet and the endless array of devices on which we can now access it. Essentially, as the accessibility, affordability, and anonymity of

emotionally arousing digital experiences have increased, so too has the incidence of addiction to those activities (Cooper, Delmonico & Burg, 2000). As such, it is hardly surprising that our most significant recent technological leap—the smartphone—has created a serious escalation in the incidence of certain behavioral challenges. In the same ways that alcoholics and drug addicts have been made more vulnerable thanks to improved distillation techniques and methods of distribution, behavioral addicts have been made more vulnerable thanks to smartphones and other digital devices.

### There's an App for That!

Our current and undeniable tech-connect boom, well-evidenced by the ubiquity of smartphones, pads, laptops, and the like, has dramatically escalated the average person's ability to access endless quantities of pleasurable and highly distracting digital content and activities—everything from the Internet's 24/7/365 shopping mall to multiplayer video games to high stakes gambling to highly graphic pornography to romantic and sexual liaisons. This ever-growing digital playground is a significant source of pleasure and enjoyment for most healthy people. For an unfortunate few, however, it can easily spawn a tech-driven behavioral addiction (or “process” addiction). A few of the more common digitally driven addictions are:

- **Gambling:** Compulsive gambling existed long before the Internet. That said, gambling addicts typically prefer fast-paced games like video poker, slots, and roulette, where rounds end quickly and there is an immediate opportunity to play again. Because of this, the Internet, which offers these fast-paced games in abundance, can be a huge problem for compulsive gamblers.
- **Video Games:** Digital gaming addiction is the extreme use of video games, sometimes for many hours or even days at a time. Young

people—those who've grown up almost constantly exposed to this sort of entertainment—are most at risk (Hagedon & Young, 2011).

- **Shopping/Spending:** Compulsive shoppers spend obsessively despite the damage this behavior does to their finances and even their relationships. Without doubt, websites and apps like eBay, Amazon, and Groupon play into this addiction.
- **Sex:** Sexual addiction is a dysfunctional preoccupation with sex, often involving the fantasy and pursuit of non-intimate interactions (porn, casual/anonymous sex, prostitution, voyeurism/exhibitionism, and the like). Online pornography and smartphone hookup apps like Skout, Blendr, Tinder, and Ashley Madison have become the sex addict's equivalent of crack cocaine.
- **Love:** Today, the obsessive search for love is almost entirely digital, occurring via social media websites and apps, dating websites and apps, and hookup websites and apps.
- **Social Media Obsession:** Many people lose themselves in an obsessive quest to have the most “friends” or “followers,” to have their lovingly constructed posts/tweets responded to in positive ways, and to incessantly tell others where they are and what they are doing. In this way social media can become an addiction unto itself, providing a quick and easy escape from real life, real relationships, real feelings, and real problems.

### Smartphone User vs. Smartphone Addict

Nearly everyone can *look* addicted at various points in time. This impression can be especially true of people who just bought a new smartphone. They download every app, they test



them all out, and sometimes they get temporarily hooked on the escapist entertainment that one or more of these programs provides. That said, such obsessions are more often indicative of early-use fascination than an actual addiction. (Fascinations decrease over time, whereas addictions escalate over time.) In truth, this type of “temporary addiction” is a normal occurrence in the spectrum of healthy human behavior. People with kids know this all too well. For instance, a young boy’s Winnie the Pooh obsession might turn into an infatuation with dinosaurs, followed by Major League Baseball, followed by *Star Wars*, followed by hours and hours spent playing World of Warcraft. That same boy might also become captivated by pornography at some point, but if he’s like most healthy, well-attached kids, he will eventually find things like online gaming and digital porn to be two-dimensional and unfulfilling, and he will long for personal contact, real-

world friendships, and face-to-face romantic interactions.

Not surprisingly, these relatively common (and perfectly acceptable) periods of temporary infatuation often continue into adulthood (think about the latest tech-toy being under the tree at Christmas). Most often, however, these obsessions either fade away or they morph into healthy hobbies/usage levels. It is usually only the more emotionally vulnerable among us who turn playful infatuation into pathological, escapist obsession. The issue here as always is not the tech (or the substance), but the inability of the specific user to experience and manage that particular stimulus in a healthy way.

### References

American Society of Addiction Medicine. (2011, April 19). *Public policy*

*statement: Definition of addiction.* Retrieved from <http://www.asam.org/for-the-public/definition-of-addiction>.  
Cooper, A., Delmonico, D., & Burg, R. (2000). Cybersex users, abusers, and compulsives: New findings and implications. In A. Cooper (Ed.), *Cybersex: The dark side of the force (a special issue of the journal of sexual addiction and compulsivity)* (pp. 5-30). Oxford, UK: Taylor and Francis.  
Hagedon, W. B., & Young, T. (2011). Identifying and intervening with students exhibiting signs of gaming addiction and other addictive behaviors: Implications for professional school counselors. *Professional School Counseling*, 4(14), 250-260.  
Weiss, R., & Schneider, J. (2014). *Closer together, further apart: The effect of technology and the internet on parenting, work, and relationships*. Carefree, AZ: Gentle Path Press. ♡

## The Expansion of Study Abroad Programs Highlights the Need for Empirically Validated Alcohol Reduction Programs for Students Studying Abroad

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Study abroad programs have experienced dramatic growth in recent years. A large majority of institutions of higher education have study abroad programs and the growing internationalization of curriculum has led to a renewed focus on these programs. Nearly 274,000 students studied abroad for credit towards their U.S. institution degree program in the 2010/11 academic year, a number that has more than tripled in the past decade

and is expected to continue climbing (Institute of International Education, 2012). Students studying abroad benefit in countless ways: broadening their global perspectives, increasing cross-cultural skills, boosting confidence and self-esteem, preparing for international careers in an increasingly global economy, developing second language skills, and cultivating a deeper respect and appreciation for people in other cultures. Universities benefit through expanded student perspectives and enriched experiences of diversity on their own campuses, as well as by gaining respect and credibility as leaders in internationalization. Research also points to the connection of study abroad to retention and success on campus (Dwyer, 2004; Sutton & Rubin, 2004, 2010). Further, schools are making efforts to increase the number of ethnic minority students studying abroad and are creating more

opportunities for those from lower socioeconomic backgrounds.

Despite the benefits, there are a number of risks for both students and institutions while abroad. For example, recent media attention has centered on accidental student deaths and high profile court trials. Students can be injured, get in legal trouble with foreign authorities, and be subject to diseases and illnesses. Liabilities to schools can include legal action from parents, cancellation of programs, loss of revenue from tuition, and severed partnerships with foreign institutions. Although accorded little attention, drinking may play a significant role in increasing risks associated with these programs.

Recent research from our labs has detailed increased and problematic drinking among college students

studying abroad. Our work involves the assessment of students prior to departure, while abroad, and after returning home. We have found that students double the amount of alcohol they consume per week while studying abroad. Moreover, the students who drink the most abroad report drinking more heavily upon returning to their home campus, compared to their pre-abroad drinking levels (Pedersen, Larimer, & Lee, 2010). As a result of this increased drinking abroad, many students report experiencing a number of significant negative alcohol-related consequences. For example, within only a one-month time frame, upwards of one-third of male and female students reported drinking on nights they had not planned to drink, taking foolish risks when drinking, embarrassing themselves, noticing changes in their tolerance level, engaging in regretted sex, and not being able to remember large stretches of time when drinking (Hummer, Pedersen, Mirza, & LaBrie, 2010). Endorsements of regretted sexual situations are particularly troublesome due to the wide spectrum of possibilities that range in gravity from having sex while still in a relationship with someone in one's hometown to sexual assault and rape. In fact, because they had been drinking, approximately 10% of men and women neglected to use birth control during sex or protect themselves from sexually transmitted diseases. Other unfortunate risks reported by at least 1 in 10 students include drinking to the point of passing out, missing classes, feeling guilty or bad about themselves due to their drinking, finding themselves in a dangerous situation they would not have been in if sober, and alcohol-related injuries (Pedersen, Neighbors, Lee, & Larimer, 2012).

Other highlights from our work include a self-selection bias for heavier drinkers towards studying abroad found for both White and ethnic minority students (Pedersen, LaBrie, Hummer, Larimer, & Lee, 2010), higher normative beliefs about drinking while abroad (Pedersen, LaBrie, & Hummer, 2009), and an effect for how much engagement students have with the host culture such that

students in engaged the host culture less drank more (Hummer et al., 2010; Pedersen, Cruz, LaBrie, Hummer, 2011; Pedersen et al., 2012). Students who intend to study abroad drink more and experience more consequences on home campuses than those with no intentions to study abroad. Both prior to departure and while abroad, students believe that other students and their host country peers drink more than they actually do, which in turn predicts increased individual drinking. Furthermore, students who make fewer attempts to engage with their host culture while abroad drink more heavily and experience more negative consequences.

In addition to the research community, personnel working with study abroad recognize the need for targeted efforts to address the problem of study abroad drinking. Recently we surveyed 154 personnel who work in study abroad programs representing 152 institutions. Nearly half of these respondents were directors of their study abroad office. Their responses illuminate the problems that alcohol poses to students and program officials in study abroad contexts. Over half of respondents reported that drinking poses one of the most serious potential negative impacts for the abroad experience, placing students at risk for physical and emotional harm and programs at risk for serious liabilities. Also, a quarter of these personnel reported that alcohol was involved in the most serious negative incidents they have had to deal with in the past year. In open-ended responses, respondents pointed to the need for empirical data on alcohol harm reduction programs that work in study abroad contexts, as well as the need for more professionals that have specific expertise in this area. Nearly all (90%) reported that it would be important for their program to have access to a risk reduction alcohol awareness program that is supported by evidence and that can be easily administered. These data confirm other reports from study abroad professionals that drinking abroad is a serious unaddressed problem in need of targeted intervention efforts. For

example, personnel from over 130 study abroad programs ranked alcohol and substance use second only to student mental health issues as their programs' top health and safety concern for students; more concerning even than pandemics, terrorism, crime, and access to appropriate medical care (Forum on Education Abroad, 2009).

Taken together, the reports by professionals working in study abroad programs along with our data from students suggest that significantly more needs to be done to address the harmful role of alcohol in study abroad experiences to reduce both the harms to students and institutions' liability. Despite the clear need for concrete strategies to reduce the risk for detrimental outcomes as a result of student alcohol misuse abroad, there are currently no published empirically tested prevention programs addressing this issue. Twenty years of focused research on college student drinking have developed many empirically supported prevention and intervention programs, some general and some targeted directly for the specific needs of specific high risk drinking groups. Based on our work, we believe that students studying abroad should be added to the list of at-risk drinkers. It is important that college personnel and particularly prevention researchers take what we've learned with students on campus and test novel applications of it to the study abroad context. Targeted harm-reduction prevention programs will likely need to be tailored to the specific cultural experience in which students will be placed. Given the growing number of students that are studying abroad and the liabilities that heavy drinking poses for both students and universities, the need to develop and test such prevention programs is of utmost importance.

## References

- Borsari, B., & Carey, K. B. (2003). Descriptive and injunctive norms in college drinking: A meta-analytic integration. *Journal of Studies on Alcohol*, 64, 331-341. Retrieved from <http://www.jsad.com/>
- Dwyer, M. M. (2004). More is better:

- The impact of study abroad program duration. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 10, 151-163. Retrieved from <http://www.frontiersjournal.com/>
- Forum on Education Abroad. (2009). *State of the Field Survey: 2008*. Carlisle, PA: Dickinson College.
- Hummer, J. F., Pedersen, E. R., Mirza, T., & LaBrie, J. W. (2010). Factors associated with general and sexual alcohol-related consequences: An examination of college students while studying abroad. *Journal of Student Affairs Research and Practice*, 47, 427-444. doi:10.2202/1949-6605.6134
- Institute of International Education. (2012). *Open Doors 2012: Report on International Educational Exchange*. New York City: Author.
- Pedersen, E. R., Cruz, R. A., LaBrie, J. W., & Hummer, J. F. (2011). Examining the relationships between acculturation orientations, perceived and actual norms, and drinking behaviors of short-term American sojourners in foreign environments. *Prevention Science*, 12, 401-410. doi:10.1007/s11121-011-0232-7
- Pedersen, E. R., LaBrie, J. W., & Hummer, J. F. (2009). Perceived behavioral alcohol norms predict drinking for college students while studying abroad. *Journal of Studies on Alcohol and Drugs*, 70, 924-928. Retrieved from <http://www.jsad.com/>
- Pedersen, E. R., LaBrie, J. W., Hummer, J. F., Larimer, M. E., & Lee, C. M. (2010). Heavier drinking American college students may self-select into study abroad programs: An examination of sex and ethnic differences within a high-risk group. *Addictive Behaviors*, 35, 844-847. doi: 10.1016/j.addbeh.2010.04.003
- Pedersen, E. R., Larimer, M. E., & Lee, C. M. (2010). When in Rome: Factors associated with changes in drinking behavior among American college students studying abroad. *Psychology of Addictive Behaviors*, 24, 535-540. doi: 10.1037/a0019863
- Pedersen, E. R., Neighbors, C., Lee, C. M., & Larimer, M. E. (2012). Not all those who wander are lost: Examining the impact of Sojourner Adjustment and drinking motives on alcohol consequences experienced by Americans studying in foreign countries. *Journal of Studies on Alcohol and Drugs*, 73, 1005-1015. Retrieved from <http://www.jsad.com/>
- Perkins, H. W. (2002). Social norms and the prevention of alcohol misuse in collegiate contexts. *Journal of Studies on Alcohol*, 14, 164-172. Retrieved from <http://www.collegedrinkingprevention.gov/supportingresearch/journalstudiesalcohol.aspx>
- Sutton, R. C., & Rubin, D. L. (2004). The GLOSSARI Project: Initial findings from a system-wide research initiative on study abroad learning outcomes. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 10, 65-82. Retrieved from <http://www.frontiersjournal.com/>
- Sutton, R. C., & Rubin, D. L. (2010). *Documenting the Academic Impact of Study Abroad: Final Report of the GLOSSARI Project*. Paper presented at the NAFSA Annual Conference, Kansas City, Missouri. ♡

## Abstracts

Anderson, M. L., Ziedonis, D. M., & Najavits, L. M. (in press). Posttraumatic stress disorder and substance use disorder comorbidity among individuals with physical disabilities: Findings from the National Comorbidity Survey Replication. *Journal of Traumatic Stress*.

Co-occurring posttraumatic stress disorder (PTSD) and substance use disorder (SUD) affects multiple domains of functioning and presents complex challenges to recovery. Using data from the National Comorbidity Study Replication, a national epidemiological study of mental disorders (weighted  $N = 4,883$ ), the current study sought to determine the prevalence of PTSD and SUD, the symptom presentation of these disorders, and help-seeking behaviors in relation to PTSD and SUD among individuals with physical disabilities (weighted  $n = 491$ ; nondisabled weighted  $n = 4,392$ ). Results indicate that individuals with physical disabilities exhibited higher rates of PTSD, SUD, and comorbid PTSD/SUD than

nondisabled individuals. For example, they were 2.6 times more likely to meet criteria for lifetime PTSD, 1.5 times more likely for lifetime SUD, and 3.6 times more likely for lifetime PTSD/SUD compared to their nondisabled peers. Additionally, individuals with physical disabilities endorsed more recent/severe PTSD symptoms and more lifetime trauma events than nondisabled individuals (e.g., average of 5 different trauma events compared to 3 in the nondisabled group). No significant pattern of differences was noted for SUD symptom presentation, nor for receipt of lifetime and past-year PTSD and SUD treatment. Implications of these findings and recommendations for future research are discussed.

Borsari, B., Eaton-Short, E. M., Mastroleo, N., Hustad, J. T. P., Kahler, C. W., O'Leary Tevyaw, T., . . . Monti, P. M. (in press). Phone-delivered brief motivational interventions for mandated students delivered during the summer-months. *Journal of Substance Abuse Treatment*.

**Objective:** Across the United States, tens of thousands of college students are mandated to receive an alcohol intervention following an alcohol policy violation. Telephone interventions may be an efficient method to provide mandated students with an intervention, especially when they are away from campus during summer vacation. However, little is known about the utility of telephone-delivered brief motivational interventions. **Method:** Participants in the study ( $N = 57$ ) were college students mandated to attend an alcohol program following a campus-based alcohol citation. Participants were randomized to a brief motivational phone intervention (pBMI) ( $n = 36$ ) or assessment only ( $n = 21$ ). Ten participants (27.8%) randomized to the pBMI did not complete the intervention. Follow-up assessments were conducted 3, 6, and 9 months post-intervention. **Results:** Results indicated the pBMI significantly reduced the number of alcohol-related problems compared to the assessment-only group.



Participants who did not complete the pBMI appeared to be lighter drinkers at baseline and randomization, suggesting the presence of alternate influences on alcohol-related problems. **Conclusion:** Phone BMIs may be an efficient and cost-effective method to reduce harms associated with alcohol use by heavy-drinking mandated students during the summer months.

Crane, N. A., Schuster, R. M., & Gonzalez, R. (2013). Preliminary evidence for a sex-specific relationship between amount of cannabis use and neurocognitive performance in young adult cannabis users. *J Int Neuropsychol Soc*, 19(9), 1009-1015. doi: 10.1017/S135561771300088X

Accumulating evidence suggests neuropsychological deficits from cannabis use, with a burgeoning area of preclinical research indicating possible sex-differences. However, few studies have examined how cannabis use may differentially impact neurocognition in male and female cannabis users. As such, we examined potential sex-differences in associations between amount of cannabis use (across several time frames) and neurocognitive performance among young adult regular cannabis users. Consistent with previous studies, more cannabis use was generally associated with poorer episodic memory and decision-making, but not other measures of inhibitory control. However, patterns of results suggested sex-specific dissociations. In particular, more cannabis use was more consistently associated with poorer episodic memory performance in females than males. Conversely, more cannabis use was associated with poorer decision-making performance for males, but not females. These results provide further evidence for residual cannabis-associated neurocognitive deficits and suggest the importance of examining the impact of cannabis on neurocognition separately for males and females.

Pearson, M. R. (2013). Use of alcohol protective behavioral strategies among college students: a critical review. *Clin Psychol Rev*, 33(8), 1025-1040. doi: 10.1016/j.cpr.2013.08.006

Protective behavioral strategies (PBS) are specific behaviors one can utilize to minimize the harmful consequences of alcohol consumption. Recently, there has been an increasing amount of interest in use of PBS among college students, especially as an intervention target. The purpose of the present comprehensive review of the PBS literature was to examine the measurement of PBS and summarize the quantitative relationships between PBS use and other variables. The review found inconsistency across studies in terms of how the use of PBS is operationalized and found only two PBS measures with good psychometric properties that have been replicated. Although several antecedents to PBS use were identified, most were only examined in single studies. Moderators of the predictive effects of PBS use on outcomes have similarly suffered from lack of replication in the literature. Of all 62 published reports reviewed, 80% reported only cross-sectional data, which is unfortunate given that PBS use may change over time and in different contexts. In addition, only two attempted to minimize potential recall biases associated with retrospective assessment of PBS use, and only two used an approach that allowed the examination of both within-subject and between-subject effects. In terms of the gaps in the literature, there is a dearth of longitudinal studies of PBS use, especially intensive longitudinal studies, which are integral to identifying more specifically how, when, and for whom use of PBS can be protective.

Ramo, D., Liu, H., & Prochaska, J. J. (in press). A mixed-methods study of young adults' receptivity to using Facebook for smoking cessation: If you build it, will they come? *American Journal of Health Promotion*.

**Purpose:** To determine whether young adults are interested in a Facebook intervention for smoking cessation and to inform the design of such an intervention. Design: Mixed-methods. Setting: Participants throughout the United States were recruited through Facebook. Participants: Young adults age 18 to 25 who had smoked at least

once in the past month. **Method:** Participants ( $N = 570$ ) completed an online survey of tobacco and social media use. A subset of 30 survey completers, stratified by motivation to quit smoking, agreed to participate in a structured interview over online chat. Themes were identified using grounded theory. **Results:** About a third of the full sample (31%) reported they would want to get help to quit smoking using Facebook. Interest in using Facebook to quit was greater among those more motivated to quit ( $\chi^2 = 75.2, p < .001$ ), who had made a quit attempt in the past year ( $\chi^2 = 16.0, p < .001$ ), and had previously used the Internet for assistance with a quit attempt ( $\chi^2 = 6.2, p = .013$ ). In qualitative interviews, social support and convenience were identified as strengths of a Facebook intervention; while privacy was the main issue of concern. **Conclusion:** Nearly one in three young adult smokers on Facebook expressed interest in using Facebook for quitting smoking. Social media approaches that respect privacy and tailor to readiness to quit are likely to maximize participation.

Wong, U., & Hodgins, D. C. (2013). Development of the Game Addiction Inventory for Adults (GAIA). *Addiction Research & Theory*. doi: 10.3109/16066359.2013.824565

This study describes the development of the Game Addiction Inventory for Adults (GAIA). First, a pool of 147 video game addiction related items was generated from interviews with 25 people who have had experience with video game addiction and a literature review. Next, an online survey of 456 adult-aged video game players drawn from university students and participants of online video game web sites provided data for reduction of the item pool and examination of the factor structure of the pool using common factor analysis. Finally, a correlational analysis was conducted between the factor solution and associated variables. The GAIA consists of five addiction related subscales: loss of control and consequences, agitated withdrawal, coping, mournful withdrawal and shame; and a 26-

item overall addiction subscale was produced by summing these five factors. In addition, an engagement subscale was also developed from the factor analytic process and was found to be quantitatively and qualitatively different from the addiction related subscales. The subscales of the GAIA demonstrated good internal consistency, good convergent validity and concurrent validity with other measures of video game addiction. The GAIA demonstrated mixed discriminant validity with pathological gambling and substance addictions. Future research should continue to investigate the psychometric properties of the GAIA and the utility of its subscales in research and clinical settings.

Young, M. S., Barrett, B., Engelhardt, M. A., & Moore, K. A. (2013). Six-month outcomes of an integrated assertive community treatment team serving adults with complex behavioral health and housing needs. *Community Ment Health J.* doi: 10.1007/s10597-013-9692-5

Assertive community treatment (ACT) and integrated dual disorders treatment (IDDT) have individually proven effective for treatment of adults with complex behavioral health and housing needs. This study evaluated the effectiveness of an ACT team that delivered integrated care consistent with IDDT principles. Participants included 60 adults with a history of chronic homelessness and co-occurring

mental health and substance use disorders. Measures assessing mental health, substance use, and residential stability were completed at intake to the program and then 6 months later. Participants reported statistically significant improvements in mental health symptomatology and residential stability over time, although there were no changes in substance use. Findings support the effectiveness of the intervention for improving mental health and housing stability among adults with complex behavioral health and housing needs. Fidelity data support the notion that multiple evidence-based interventions can be integrated while still maintaining adequate fidelity to individual components. ♡

## Announcements

### Postdoctoral Fellowships in Prevention Science

The Prevention Research Center of the Pacific Institute for Research and Evaluation (PIRE), in collaboration with the School of Public Health, University of California Berkeley, are seeking applicants for two-year postdoctoral fellowships funded by the National Institute on Alcohol Abuse and Alcoholism. The fellowships provide training in prevention science with an emphasis on problems related to alcohol and other substance use. Individuals with backgrounds in a broad range of social science disciplines are encouraged to apply. Start dates for fellowships are July-August, 2014. Applicants must have doctorate prior to start date. Interested applicants are encouraged to apply by March 1, 2014.

For further information visit our website: <http://www.prev.org/preventiontraining/>. Submit questions to [prcpostdoc@prev.org](mailto:prcpostdoc@prev.org).

PIRE and the University of California are Equal Opportunity/Affirmative Action Employers. Under NIH policy, only applicants who are U.S. citizens or have permanent residence status can be considered.

### Research Scientist: Tobacco/Nicotine Use

The University at Buffalo (UB) Research Institute on Addictions (RIA), a national leader in addictions research, is recruiting for a State of New York Research Scientist position. We are specifically seeking applicants with research expertise in tobacco/nicotine use, broadly defined. Experience as



principal investigator on externally funded research projects or prior grant funding is highly desirable. The successful candidate is expected to obtain funding for research that addresses important scientific questions regarding tobacco/nicotine use. This is a permanent research-focused

position with minimal teaching and administrative responsibilities. The position is subject to New York State Civil Service regulations. Salary and fringe benefits are competitive. RIA is a research center within UB, and faculty and/or joint appointments with UB departments are available. Applications from minority candidates are particularly welcome. Established in 1970, RIA has a staff of over 120 persons working on over 35 separate research projects spanning multiple disciplines and approaches. RIA occupies a five-story building, and offers outstanding resources in support of its research endeavors. Visit the RIA website at <http://www.buffalo.edu/ria.html>. Inquiries can be made to either Kenneth E. Leonard ([leonard@ria.buffalo.edu](mailto:leonard@ria.buffalo.edu)), RIA Director, or Gerard J. Connors ([connors@ria.buffalo.edu](mailto:connors@ria.buffalo.edu)), Search Committee Chair. To apply, visit <https://www.ubjobs.buffalo.edu> and search for position posting identification number 1300827. Attach a cover letter, curriculum vitae, and research statement to the digital application. Three letters of recommendation are also required and may be submitted as outlined in the online position posting. Applications will be reviewed as they are received. The University at

Buffalo is an affirmative action/equal employment opportunity employer (AA/EOE).

### ACBS Applying ACT to Addictions Special Interest Group

Division 50 members might be interested to learn that [ACBS](#) now has an [Applying ACT to Addictions - Special Interest Group \(AAA-SIG\)](#). The suggested donation from professionals for membership in ACBS is only \$60 and the [ACBS World Conference 12](#) offers a chance to participate in cutting-edge Acceptance & Commitment Therapy, Relational Frames Theory and Contextual Behavioral Science training and research in the rapidly growing and vibrant ACBS community. Registration for the [ACBS World Conference 12](#), where the AAA-SIG will be holding its first meeting, is **now open**. Members

of the Society of Addiction Psychology are encouraged to consider joining ACBS and participating in the upcoming conference.

### 43rd Annual Summer Clinical Institute (SCI 2014) in Addiction Studies University of California, San Diego La Jolla, CA 92093 June 3-4, 2014

For four decades, the Summer Clinical Institute in Addiction Studies has promoted state-of-the-art strategies and practices through training for those performing health and social services with patients and clients who may be troubled by alcohol and other drug use. UCSD CCARTA is proud to offer lectures, workshops, and discussion sessions featuring experts that focus on science-based strategies and culturally competent services.

Objectives: Through plenary sessions and workshops, the Summer Clinical Institute will provide clinicians with science-based concepts and skills to bridge potential practice gaps. At the end of this event, participants should be able to:

- Increase their understanding of issues in the treatment of adolescents and brain development
- Enhance counseling skills through better understanding of Motivational Interviewing strategies
- Gain in-depth Cognitive Behavioral Therapy knowledge and skills

*(Continued on page 35)*





# CHANGING ADDICTIVE BEHAVIOR

*Bench to Bedside and Back Again*

28/50 COLLABORATIVE  
PERSPECTIVES ON  
**ADDICTION**  
Feb 28 - March 1 | Atlanta, GA



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### NIH Functional Integration

There will be a special pre-conference session on functional integration at NIH and the future of addiction research funding.

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**Closer Together, Further Apart:  
The Effect of Technology and the  
Internet on Parenting, Work, and  
Relationships**

This book (Gentle Path Press, 2014) takes readers on a fascinating exploration of how digital technology and the Internet have changed the way we communicate, relate, work, parent and mate. Today, as always, technological advances can increase the risk of addiction. In their new book, authors Robert Weiss and Jennifer Schneider explore how accessibility, affordability, and anonymity have created some new addictions resulting from all this new technology. During their thoughtful exploration they make a surprising discovery that you will not want to miss. 

**RENEW NOW!**

Renewal notices for January-December 2014 have been sent out to 2013 members and affiliates of SoAP. APA Members, Associates, and Fellows may renew at <http://www.apa.org/membership/renew.aspx>. Professional Affiliates and Student Affiliates may renew at [www.apa.org/divapp](http://www.apa.org/divapp). Everyone, even if no membership in APA, may check membership status by going to [www.apa.org](http://www.apa.org) and logging in and going to their myAPA page. If you hold membership in SoAP/Division 50 for 2014, you will see it listed in your divisions. If you have questions, contact the administrative office at [division@apa.org](mailto:division@apa.org) or 202-336-6013.

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