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# Acceptance and Commitment Therapy (ACT) for HIV-infected Hazardous Drinkers: A Qualitative Study of Acceptability

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# **Abstract**

Alcohol use is a significant problem in HIV care, and clinical trials of alcohol interventions for people living with HIV infection (PLWH) have produced mixed results. The purpose of this qualitative study was to collect preliminary data on the practical feasibility and acceptability of Acceptance and Commitment Therapy (ACT) as a treatment for PLWH who are hazardous drinkers. A total of 25 PLWH participated in individual interviews. Four major themes emerged from the thematic analysis: (I) Perceived Appropriateness for PLWH and People who use Alcohol and/or other Substances, (II) General Satisfaction and Dissatisfaction, (III) Positive and Negative Effects on Participants and (IV) Facilitators and Barriers to Implementing ACT Intervention Strategies.

# **Keywords**

Alcohol; Acceptance & Commitment Therapy; ACT; HIV

Alcohol use is a significant problem in HIV care. Approximately eight to 20% of people living with HIV infection (PLWH) report drinking at hazardous or heavy levels (Chander, Lau, & Moore, 2006; Kelly et al., 2016; Marshall et al., 2015; Sullivan, Goulet, Justice, & Fiellin, 2011), which is associated with a significant increase in risk for mortality (Justice et al., 2016), lack of viral suppression (Chander et al., 2006), sub-optimal adherence to antiretroviral therapy (ART; Hendershot, Stoner, Pantalone, & Simoni, 2009), and engagement in sexual risk behavior (Shuper, Joharchi, Irving, & Rehm, 2009). Alcohol consumption that exceeds the National Institute on Alcohol Abuse and Alcoholism's (NIAAA) definition of low risk drinking (i.e., no more than three drinks on any single day and no more than seven drinks per week for women, and no more than four drinks on any single day and no more than 14 drinks per week for men), termed "at-risk" consumption, has been associated with negative outcomes at every stage of the HIV care continuum (Vagenas et al., 2015), making it an important factor in HIV treatment that, if unaddressed, may significantly contribute to onward transmission (Bryant, 2006).

Clinical trials of alcohol interventions for PLWH have produced mixed results. Of the eight randomized controlled trials (RCTs) designed for PLWH with at-risk alcohol use (Scott-Sheldon, Carey, Johnson, & Carey, 2017), four have shown short-term treatment efficacy (Chander, Hutton, Lau, Xu, & McCaul, 2015; Hasin et al., 2013; Papas et al., 2011; Velasquez et al., 2009). While these trials have significantly advanced the field, no alcohol intervention for PLWH has shown long-term reductions in drinking quantity or has had a significant impact on HIV treatment-related outcomes (e.g., viral load, ART adherence; Williams et al., 2016). The development of additional intervention strategies is thus a significant need in the field.

At-risk drinking among PLWH occurs in conjunction with a high prevalence of mental health disorders (Klinkenberg & Sacks, 2004; Pence, Miller, Whetten, Eron, & Gaynes, 2006) and concurrent behavioral health needs (e.g., disclosure, stigma, adherence to medications). Interventions capable of targeting processes common to both substance use and other psychiatric and behavioral problems may hold promise for HIV-infected drinkers. "Third wave" mindfulness-based therapies (e.g., Acceptance and Commitment Therapy [ACT], Mindfulness-Based Stress Reduction [MBSR]) have recently been identified as a novel way to treat individuals with dual diagnoses (Vujanovic et al., 2016) — targeting overlapping behavioral and neural processes common to both substance use and other psychiatric disorders (Brewer, Bowen, Smith, Marlatt, & Potenza, 2010; Witkiewitz, Bowen, Douglas, & Hsu, 2013). Of the existing third wave therapies, ACT is unique in combining elements of mindfulness, acceptance, values-clarification, and behavioral goal setting – allowing for flexible application to a variety of psychological (e.g., depression, anxiety; Arch et al., 2012; Landy, Schneider, & Arch, 2015; Zettle, 2015), physical (e.g., chronic pain; Veehof, Trompetter, Bohlmeijer, & Schreurs, 2016), behavioral (e.g., weight control; Forman & Butryn, 2015; Weineland, Arvidsson, Kakoulidis, & Dahl, 2012), and substancerelated (e.g., smoking, opiates; Lee, An, Levin, & Twohig, 2015) problems.

The goal of ACT is to "create a rich and meaningful life, while accepting the pain that inevitably goes with it" (Harris, 2006, p. 2). Mindfulness skills (e.g., nonjudgmental observation of the present moment, noticing and naming thoughts and feelings, allowing thoughts to come and go without acting upon them, making room for unpleasant emotions) are developed as a means to increase contact with the present moment, increase acceptance of aversive private experiences (e.g., anxiety, sadness), and enact behavioral goals that are guided by self-identified core values (e.g., acting on a value of interpersonal connection by increasing participation in social activities, acting on a value of self-care by exercising weekly; Blackledge & Hayes, 2001; Harris, 2006).

ACT's focus on the amelioration of *experiential avoidance*—i.e., repeated attempts to eliminate or avoid difficult thoughts, feelings, or urges—as an underlying mechanism of psychopathology makes it and other mindfulness-based therapies distinct from more traditional cognitive behavioral treatments for alcohol use. The focus is on skills that increase the ability to *experience* and *accept*, rather than *change* and *examine the content of* difficult thoughts and feelings related to substance use (e.g., urges, cravings; Witkiewitz et al., 2013). ACT has shown efficacy for treatment of anxiety (Arch et al., 2012; Landy et al., 2015), depression (Zettle, 2015), chronic pain (Veehof et al., 2016), and tobacco, opiate,

methamphetamine, and polydrug use (Lee et al., 2015). ACT also significantly improved cumulative abstinence duration among psychiatric inpatients with comorbid alcohol use and affective disorders in a pilot matched control trial (Thekiso et al., 2015).

There have not, to our knowledge, been any RCTs of ACT for at-risk alcohol use, nor has ACT been studied as an intervention strategy for improving treatment outcomes among PLWH. As part of the pre-efficacy phase of behavioral intervention development, qualitative research methods can be useful for involving the target population in the early assessment of feasibility and acceptability of intervention strategies, ideas, and modes of delivery (Czajkowski et al., 2015). In order to inform a planned efficacy trial, the purpose of this study was to use qualitative interviews to collect preliminary data on the practical feasibility and acceptability of ACT for PLWH who are at-risk drinkers.

# Methods

# **Procedures**

The qualitative interview data presented here were part of a larger ongoing study designed to examine substance use and sexual risk behavior among HIV-infected men who have sex with men (MSM; the IN-VOICE study). The IN-VOICE study requires participants to complete a baseline session in which several demographic and behavioral self-report questionnaires (regarding, e.g., alcohol use, sexual behavior) are completed, and dried blood spots are collected for alcohol biomarker testing. Participants are subsequently randomized to six weeks of daily cell phone-based data collection or to a no daily data collection control condition, and then return to the lab for a follow-up appointment in which the baseline procedures are repeated. Inclusion criteria for the larger study are as follows: (1) self-identification as a man who has sex with other men, (2) consumption of more than one drink containing alcohol in the previous month, (3) participation in more than one occasion of anal intercourse in the previous 6 weeks, (4) inconsistent use of condoms in the previous six months (greater 115 than 0% of the time and less than 100% of the time), (5) ownership of a cell phone, (6) HIV-positive serostatus, and (7) age between 18 and 65 years.

Participants eligible for the IN-VOICE Study who scored greater than or equal to eight on the Alcohol Use Disorders Identification Test (AUDIT; Babor, Higgins-Biddle, Saunders, & Monteiro, 2001; i.e., "hazardous" drinkers) were asked about interest in participating in a one-hour interview on a new type of intervention for PLWH who use alcohol or other substances. Participants who expressed interest typically completed the interview in conjunction with their baseline or follow-up appointment associated with the IN-VOICE study. A separate informed consent was administered to all participants prior to the initiation of the interview, which included expressed permission to audio record. Upon signing the consent, the interviewer began audio recording and initiated a semi-structured interview that involved three experiential exercises (described next). Interviews were completed in a private room by one of two graduate-level research assistants and took approximately 40–60 minutes to complete. Participants were compensated \$25 for their time. All interviews were transcribed by a professional transcriptionist and subsequently uploaded to Dedoose —a secure, cloud-based qualitative data analysis software program (Dedoose, 2018). All

procedures were approved by the Committee on Human Research at the University of California, San Francisco and the Institutional Review Board at Syracuse University.

# Semi-structured interview guide

The interview guide was designed to expose participants to the ACT model via three experiential exercises. Participants first received a brief explanation of ACT and subsequently engaged in three activities chosen to demonstrate the core components of the treatment (Harris, 2009): (1) *Be present* - contact the present moment, develop an observing self, (2) *Open Up* - acceptance of uncomfortable private experiences and defusion from thoughts and emotions, and (3) *Do What Matters* - clarify values and take committed action in line with those values. After each activity, the interviewer probed for participant reactions and feedback (e.g., "what did you think of that activity?", "what did you like most/least?"). At the end of the interview, participants provided their overall opinion about ACT, including any positive or negative effects of the activities, applicability of the ACT exercises to PLWH and people who use alcohol and/or other substances, and suggestions for improvement. The activities were as follows:

Activity #1 (Be Present): Mindfulness of Breath.—Participants were informed that being present, or *mindful*, means "paying attention with openness, curiosity and flexibility" (Harris, 2009). Subsequently, the participant was guided through a five-minute "Quick Mindful Breathing" exercise from the ACT Companion: Happiness Trap smartphone application (Berrick Psychology, 2017). This exercise asks the participant to sit upright in a relaxed position, close his eyes, and bring his awareness to his breath, simply noticing it without judging, analyzing, or trying to change it.

Activity #2 (Open Up): Compassionate Hand.—Participants were informed that "opening up" means accepting unwanted and/or painful thoughts and feelings. In order to evoke such feelings for the exercise, participants were instructed to bring to mind a "reality gap", which was explained as the difference between the reality we have and the reality we want. Subsequently, the six-minute "Compassionate Hand" exercise from the ACT Companion smartphone application was administered, which directs the participant to practice self-compassion towards the pain of a "reality gap."

Activity #3 (Do What Matters): 80th Birthday Party.—The final exercise was explained as a way to clarify the participant's core values and to begin to take committed action based on those values. The participant was instructed by the interviewer to imagine his eightieth birthday party and bring to mind two or three people who would make speeches about what the participant stood for, what the participant meant to them, and the role the participant played in the speaker's life. The participant was then asked to articulate what, in an ideal world, in which the participant had lived his life as the person he most wants to be, the speakers would say. The activity was adapted from the ACT Made Simple Workbook (Harris, 2009).

# **Analyses**

A team of four coders, led by the first author, met weekly to analyze the 25 transcripts in several phases. Using thematic analysis (Guest, MacQueen, & Namey, 2011; Miles & Huberman, 1994), the team read and re-read interview transcripts to identify major unifying themes and sub-themes in the data. In phase I, the first-author and one of the graduate student interviewers read and re-read the transcripts to discuss preliminary unifying topics in the data, based on both interview questions and emergent findings, which were subsequently organized into thematic areas and a preliminary codebook. In phase II, the four-person team coded two transcripts together using the preliminary codebook, and met as a group to discuss how to further define and add to the coding system. As a product of this discussion we implemented standardized definitions of acceptability and practical feasibility (Bowen et al., 2009), and added sub-themes that were consistent with each definition. Practical feasibility was operationalized as the extent to which ACT could be "carried out with intended participants using existing means, resources, and circumstances" (Bowen et al., 2009, p. 454) and sub-themes included the ability of participants to carry out intervention activities (e.g., how could participants incorporate ACT-consistent activities into their daily life), and suggestions for improvement (e.g., how could the delivery or content of the exercises be changed to increase feasibility). Acceptability was defined as the extent to which ACT was perceived as "suitable, satisfying, or attractive" (Bowen et al., 2009, p. 454) and included sub-themes such as general satisfaction/dissatisfaction (e.g., how well the participants liked or disliked the activities), positive and negative effects (e.g., how the participants felt, physically and psychologically, immediately following the activity), and perceived appropriateness (e.g., how relevant the exercises were to the issues common to PLWH who are hazardous drinkers). In phase III the coding team independently coded two more transcripts with the new codebook and subsequently met as a team to discuss the coding until we reached 100% coder agreement. In phase IV, the remaining transcripts were randomly assigned to two coders, who independently coded the transcripts in Dedoose using the final codebook. The team continued to meet on weekly basis to discuss the coding process and resolve any issues that arose from it (e.g., discussing if a section of text fit within general satisfaction or positive effects). The research team also contacted participants in the study and asked for feedback on the themes we created, quotes used to represent those themes, and probed for whether or not the overall presentation of the results was realistic and accurate (Creswell & Miller, 2000). Participants unanimously agreed that the summary of the interview content, as presented by the research team, accurately characterized their experience and there were no suggestions for revisions.

# Results

Twenty-five HIV-infected MSM participated in the qualitative interviews. The majority identified as homosexual/gay/queer (80%), Black/African-American (56%), and had a self-reported undetectable viral load (80%). Demographic information is presented in Table 1. Results from the qualitative interviews are organized according to four major themes related to the acceptability and practical feasibility of the ACT activities: (I) Perceived Appropriateness for PLWH and People who use Alcohol and/or other Substances, (II)

General Satisfaction and Dissatisfaction, (III) Positive and Negative Effects on Participants and (IV) Facilitators and Barriers to Implementing ACT Intervention Strategies.

# I. Perceived Appropriateness of ACT for target population

Perceived appropriateness of ACT for people who use alcohol and/or other drugs.—Participants described the mindfulness exercises as a healthy alternative to alcohol and other drugs as a means of distraction, avoidance, and/or self-medication – especially when experiencing an acute state of negative affect.

"It's a great alternative to drugs when I'm feeling overwhelmed and anxious and like my head's about to pop off because I can't handle any more input...Well, they're [the activities] totally useful because they're healthy alternatives to substance use and/or abuse."

Participants also reported that Activity #1 (mindfulness of the breath) allowed them to feel more aware of and connected to the physiological and psychological sensations in their body, and to "unmask" the reasons behind their substance use.

"I think it can be very useful because when you're addicted to either alcohol or substances you don't think about the trouble that you are in and you don't even dedicate five minutes of your time to be with yourself. Like this exercise will teach you, you know they teach you to just to feel your skin, to feel your breathing and that's a way to know your own body. I don't think that most of us with an addiction problem actually think about this."

"I think because a lot of men with HIV that consume alcohol and those other substances, they're trying to mask what's really going on in their life. I keep thinking during these exercises that's really what I think is going on...So when you finally make them really unmask it with this exercise because it makes you unmask a lot of stuff."

**Perceived appropriateness of ACT for PLWH.**—When queried about the relevance of ACT to PLWH, a majority of the participants emphasized the universality of the core premises of ACT, and felt that the exercises would be helpful to anyone, not just PLWH. Other participants noted that PLWH might uniquely benefit from the mindfulness and acceptance skills emphasized in ACT, especially with regard to adjusting to a new HIV diagnosis, managing HIV-related stigma and trauma, and prioritizing self-care.

"I think it works. It can work for – I just don't want to just put it just on people who have HIV...But it helps in some sense for people who have HIV, because like I said people who may have never experienced having HIV and just recently just caught it their emotions and their mind is all over the place. They don't know what to do. Because they never had it. They don't know if they're going to not wake up the next day or die a year from now. So people in that situation I think need it more than people who are able to cope with it."

# II. General Satisfaction and Dissatisfaction

**Satisfaction.**—Overall, participants reported high satisfaction with the content and skills taught in the ACT exercises. Activity #1 (mindfulness of the breath) was particularly well-liked, in addition to the overall focus on the "here and now" and the opportunity to devote time to self-reflection – something which was not often prioritized in the day-to-day lives of the men we interviewed.

"I think that overall I liked it. I liked the exercise and the fact that it makes you think about the way you breathe, the way you think about like in this case about the future. It makes you have a little time to think about all the things that are going on in your life and how you can cope with it. Because I don't think the exercise or the obligation will solve the problem but at least it helps you cope with it, so I liked that part. It makes you be like more accepting."

Participants also found it rewarding to reflect on their personal experiences and become more aware of the extent to which their current behavior did or did not align with their core values.

"That was a pretty good activity. Then you could shut off the tape recorder and play it back and be like, so, how close are you to being this person that you would like to be and how come you don't think that you're already that person right now? What are your inherent barriers preventing you from behaving the way that you'd like to behave, you know, those kind of things."

**Dissatisfaction.**—While most participants reported high satisfaction with the exercises, some participants indicated that it might be difficult for people to share personal experiences and feelings with research staff without first establishing a therapeutic relationship.

"I didn't find anything negative about it, only maybe it's an awkward thing without your emotions with someone who is a practical stranger or something that's just uncomfortable you know."

# III. Positive and Negative Effects

**Positive Effects.**—Almost all of the participants reported experiencing positive effects as a direct result of the experiential activities, especially Activity #1 (mindfulness of the breath) and Activity #3 (80th birthday party). The most frequently reported positive effect was a sense of inner calm that caused a decrease in feelings of anxiety and an increase in awareness. Participants described feeling "centered," "relaxed," and "peaceful."

"What I liked most is just being real centered of my awareness, of things I'm normally not aware of. Just like clothes against my body and stuff like that, just things you don't normally think about you know things you take for granted, I guess."

Several participants coping with chronic pain also observed a decrease in physical pain symptoms subsequent to Activities #1 and #2 – even though this was not an explicit focus of the activities.

"But what I liked most is that I relaxed my muscles and it made the pain – I have pain in my back and I think it's because of all the stress that I've had and by relaxing the muscle I had kind of a release of that a little bit, so it was like less painful."

Acceptance more generally, a known mechanism of change in ACT, was also identified by participants as a positive effect, the consequences of which increased perceived ability to cope with everyday problems, to cope with urges to use substances, to cope with judgments from other people, and to cope with rejection due to HIV status.

"Well I think that in this case it could be very helpful. Because people that you know that have HIV go through many different traumas you know it's hard to...it was very difficult for me to accept or whatever. And then you think you're gonna die or whatever...So these kind of activities could help people deviate from those thoughts and help them you know nurture themselves, help them see the great in them, you know not just the negative. And again acceptance and self-love that we all need, but especially with HIV positive people..."

**Negative Effects.**—While exposure to, and acceptance of, painful feelings and memories were identified as positive by some participants, others perceived the in vivo exposure as emotionally overwhelming. This was an especially prevalent concern for Activity #2 (compassionate hand); for many participants, this exercise was the first experience with the idea of self-compassion, and in the context of a brief (i.e., one hour) interview, it was perceived as "too much, too soon," exposing them to aversive emotions and/or memories they were not ready or prepared to address, potentially leading to an increased risk for substance use.

"(Activities) one and three were great but in the middle if the person isn't prepared and if there isn't a practitioner that will help them cool down after that then I think it could be really dangerous. It could just make problems worse, it could encourage substance use and abuse rather than help reduce it."

As previously described, Activity #3 asked participants to imagine what friends and family would say at an 80th birthday party celebration. While most of the participants enjoyed this activity, several also expressed uncertainty and anxiety about whether or not living to age 80 was realistic given their current circumstances. Participants suggested that this exercise could be adapted to an earlier age or even a different type of celebration (e.g., retirement) to accommodate fears among people living with HIV and other chronic diseases.

"I don't want to think about being 80, I'm just trying to get to 50, you know."

# IV. Facilitators and Barriers to implementing ACT intervention strategies

**Facilitators.**—In general, participants described the exercises as easy to use, applicable to a variety of life situations, and simple to implement in diverse settings (e.g., home, work). As a result, participants expressed confidence in their ability to integrate ACT skills into their daily lives, stating that the exercises could be practiced on a daily or weekly basis without significantly interfering with their routine day-to-day activities.

"So you know I think it's good to do it before you go to bed, while you're in the shower, while you're outside on the back porch you know...Like say on a train, for example, I'm going to use that one. On a train if I'd close my eyes and go through the whole train ride exactly like that you know I'd probably feel a lot different."

**Barriers.**—Participants also described several barriers to implementation. Consistent with the negative effects of emotional exposure described previously, participants reported concern over the residual emotion elicited from Activity #2 (compassionate hand) could decrease motivation for regular use.

"..those kind of exercises could potentially ruin the rest of my day just because I'm going to be spent or emotionally exhausted or whatever so I don't know. Asking people to focus on their trauma and on their pain is actually kind of a lot to do. It's a lot to ask."

There was also some concern that people who use alcohol or other drugs may not make time to practice mindfulness skills, highlighting the importance of formal and/or social support for implementing these exercises.

"I think it would be hard to do it by yourself because the motivation for me is hard. I tend to flake out a lot when it comes to stuff like this if there's not somebody to do it with me."

# DISCUSSION

The qualitative interviews from this study indicate that activities representing the core principles of ACT–contacting the present moment, acceptance, and values-clarification—are acceptable and practically feasible to PLWH who are hazardous drinkers. Participants described the exercises as applicable to a variety of life situations and simple to implement in diverse settings. Participants also described the exercises as a healthy alternative to using substances as a form of self-medication – observing that the mindfulness of the breath exercise in particular increased awareness of physiological and psychological sensations in the body. Observing and practicing acceptance of these internal experiences, often escaped or avoided with alcohol use, is one of the primary mechanisms of change in ACT. By decreasing experiential avoidance via mindfulness skills, the need to use alcohol (or any other form of avoidant coping) theoretically decreases, a process several participants likened to "unmasking" the reasons behind substance use. For PLWH in particular, the skills emphasized in ACT not only provide a way of addressing alcohol use as a form of experiential avoidance, but were also described as relevant to the adjustment to a new HIV diagnosis, the prioritization of self-care, and the management of HIV-related stigma.

Almost all of the participants described immediate and positive effects on mood (e.g., increased feelings of peacefulness, relaxation, and self-awareness) subsequent to the mindfulness of the breath exercise. These observations are consistent with the growing literature on the feasibility and acceptability of mindfulness-based stress reduction (MBSR) interventions for PLWH (Riley & Kalichman, 2015), which have been preliminarily shown to increase CD4 count, decrease psychological distress, and increase quality of life. This

literature does not, however, address the relevance of these approaches to PLWH who use alcohol or other substances (Riley & Kalichman, 2015). Indeed, of the seven peer-reviewed journal articles that Riley and Kalichman (2015) covered, 71% (n = 5) excluded participants with active substance use problems, and the other two studies did not discuss substance use inclusion or exclusion criteria. Further, none of the MBSR interventions reviewed by Riley and Kalichman (2015) had significant effects on ART adherence, arguably the most important behavioral treatment-related intervention target for PLWH.

Several participants expressed difficulty with the self-compassion exercise, describing it as "emotionally exhaust(ing)." Although participants acknowledged the therapeutic utility of being exposed to the feelings the exercise evoked, the intensity of the exercise was described as aversive, and some participants expressed concern that it could increase risk for substance use. These responses are consistent with the initial increase in negative affect characteristic of exposure-based treatments, which can be mitigated by increasing variability in the context and order in which aversive stimuli are presented (Knowles & Olatunji, 2018). Future ACTbased work with HIV-infected drinkers could be initiated in-person with a trained therapist, tailored to gradually introduce acceptance and self-compassion via metaphors before moving on to experiential exercises, and focused explicitly on acceptance strategies related to alcohol use. For example, Bricker and colleagues (Bricker, Wyszynski, Comstock, & Heffner, 2013; Bricker, Bush, Zbikowski, Mercer, & Heffner, 2014; Bricker, Mull, et al., 2014) have developed brief technology-based ACT interventions for tobacco smokers that deliver acceptance and self-compassion content via brief metaphors focused on smoking urges (e.g., treating urges and cravings as "passengers in a car", while the "driver" continues to head in the direction of his or her personal values and goals). In this way, the skill of acceptance is developed while the focus is on less emotionally-evocative content. Acceptance and self-compassion-based strategies could also be tailored for HIV-related topics such as disclosure, stigma, and disease management. Indeed, several pilot studies have shown acceptance-based behavior therapy to result in preliminary improvements in HIVrelated stigma, HIV medication adherence, willingness to disclose HIV status, and retention in HIV care (Moitra, Chan, & Stein, 2015; Moitra, Herbert, & Forman, 2011; Moitra, LaPlante, Armstrong, Chan, & Stein, 2017; Skinta, Lezama, Wells, & Dilley, 2015). As with the literature on MBSR, none of these studies have focused on PLWH who use alcohol or other substances.

While the ease of incorporating ACT activities into day-to-day routines was described as a strength, participants also expressed a need for external support to increase motivation for regular use of ACT skills. The phone and web-based ACT interventions described previously (Bricker et al., 2013; Bricker, Bush, et al., 2014; Bricker, Mull, et al., 2014) may be a novel and feasible way to use technology to address this need for support. ACT could also be implemented in a group format, in conjunction with medical HIV treatment, which has been successful in the treatment of chronic pain (Vowles & McCracken, 2008; Wetherell et al., 2011). This format would not only allow therapy to occur within the context on ongoing medical treatment, increasing accessibility, but would also incorporate social support for reducing alcohol use – a factor that enhances alcohol-related outcomes (e.g., percent days abstinent) after treatment initiation (Beattie & Longabaugh, 1999) and

significantly increases the likelihood of receiving substance abuse treatment among PLWH (Orwat et al., 2011).

#### Limitations.

The findings from this qualitative study should be interpreted in the context of several limitations. First, although age and ethnic-minority status were well represented in our interviews, all of the participants were adult MSM and thus important subsets of PLWH (i.e., women and adolescents) are missing from this analysis. Our findings do not account for, nor adequately represent, the opinions of these groups. Second, we did not pilot a manualized ACT intervention, choosing instead to expose participants to three brief exercises representing the core principles of ACT. The opinions expressed herein thus do not represent acceptability of a formal, multi-session, ACT-based treatment, but rather represent reactions to activities representing the core philosophy of the approach. Third, all participants were currently engaged in HIV care, representing a subset of all PLWH who are likely more open to health-related interventions. Acceptability may differ among community-recruited PLWH who have been lost to or have not previously entered HIV care. Fourth, because the interview was presented as an opportunity to learn about a new treatment, participant responses may have been biased, leading to an overestimation of the general satisfaction for the ACT exercises. Although probes for negative feedback were used to mitigate socially desirable responding, the responses we received were still likely skewed in favor of ACT. Finally, we did not collect any data on the short or long-terms effects of the ACT-based exercises on alcohol use, nor did we formally assess for an increase in acceptance—a proposed mechanism of change in ACT. We cannot assume that the temporary benefits selfreported by the participants in these interviews would translate into measurable changes in quantity or frequency of alcohol use. While the focus of the present study was on practical feasibility and acceptability, our planned pilot efficacy trial will be able to provide preliminary data on both the short-term effects of the strategies piloted here, and the maintenance of those effects over time.

# Conclusions.

In summary, the qualitative data from this study indicate that ACT is a feasible and acceptable transdiagnostic approach for PLWH who are at-risk drinkers. Our interviews, in combination with the efficacy of ACT for smoking and other substance use, suggest ACT has potential as a treatment approach for at-risk alcohol use among PLWH. Given the significant need for intervention strategies capable of addressing psychological and behavioral comorbidities among PLWH, and the few available efficacious alcohol interventions, additional research on the potential of ACT is warranted. Clinical trials of ACT as a treatment for hazardous alcohol use among HIV infected and HIV uninfected populations would confirm if the feasibility and acceptability of ACT observed in our interviews translates into quantifiable changes in alcohol use that can be maintained over time.

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Table 1.

Demographic characteristics of qualitative study participants (N = 25)

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Average number of years since HIV diagnosis (SD)	9.67 (8.61)
Average age in years (SD)	38.52 (10.94)
Gender identity N (%)	
Male	24 (96%)
Transgender Female	1 (4%)
Sexual orientation N (%)	
Homosexual/Gay/Queer	20 (80%)
Bisexual	4 (16%)
Not sure	1 (4%)
Racial identity N (%)	
Black/African-American	14 (56%)
White	7 (28%)
Mixed Race	2 (8%)
American Indian/Alaska Native	1 (4%)
Refused to Answer	1 (4%)
Past-year annual income N (%)	
<\$10,000	12 (48%)
\$10,000–\$20,000	6 (24%)
>\$20,000	7 (28%)
Education level N (%)	
High School or Less	10 (40%)
Some College	9 (36%)
College Graduate or Above	6 (24%)
Self-reported viral load N (%)	
Detectable	5 (20%)
Undetectable	20 (80%)
Average AUDIT score (SD)	17.56 (7.33)

Note. AUDIT = Alcohol Use Disorders Identification Test