Published in final edited form as:

Behav Modif. 2015 September ; 39(5): 670–690. doi:10.1177/0145445515590977.

Open Trial of an Acceptance-Based Behavior Therapy Intervention to Engage Newly Diagnosed HIV Patients in Care: Rationale and Evidence of Feasibility and Acceptability

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Abstract

Successful linkage and retention in care of newly diagnosed individuals in the United States remains a significant gap in the HIV care continuum. This study assessed the acceptability and feasibility of an acceptance-based behavior therapy (ABBT) intervention to engage patients newly diagnosed with HIV in medical care. Nine patients were recruited over 4 months for this brief ABBT intervention, which consisted of two brief sessions, each lasting less than 20 min. The intervention was developed to promote psychological acceptance of the HIV diagnosis, thereby increasing patients' willingness to make informed disclosure of their status. Eight patients completed a 1-month follow-up assessment, and all approved of the intervention and its components. Over the 1-month period, participants showed increased acceptance, reduced perceptions of HIV stigmatization, and increased disclosure of HIV status to social supports. This pilot study provided support for the continued investigation of ABBT as an adjunctive intervention for newly diagnosed HIV patients who are at high-risk of dropping out of HIV care.

Keywords

HIV; care; acceptance; disclosure

Introduction

Engagement in medical care is critical for people living with HIV/AIDS (PLWHA) in the United States. Engagement goes beyond linkage to care, which typically consists of initiating HIV-related care (medical, psychological, and/or social services) for newly diagnosed HIV-positive persons (Ulett et al., 2009). Rather, engagement is defined by retention in care, that is, consistent attendance at longitudinal medical visits. Unfortunately,

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Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

up to 50% of the more than 1 million individuals (Campsmith, Rhodes, Hall, & Green, 2009) infected with HIV in the United States are not regularly engaged in medical care (Gardner, McLees, Steiner, del Rio, & Burman, 2011; Hall et al., 2012). Dropout rates from primary care clinics in the months following initiation of HIV care can run as high as 50% (Rumtzt et al., 2007), with 31% to 46% of patients dropping out after the first visit (Marks, Gardner, Craw, & Crepaz, 2010). Furthermore, only 45% to 55% of PLWHA complete at least one medical visit every 6 months (Fleishman et al., 2012; Hall et al., 2012).

PLWHA who fail to engage consistently after initial contact with HIV providers risk a number of critical consequences to their health and quality of life. Most notably, an inconsistent connection to medical care compromises an individual's likelihood of timely antiretroviral treatment (ART) initiation (Ulett et al., 2009). Once ART is initiated, inconsistently engaged recipients are less likely to be adherent, increasing the risk for viral drug resistance (Parienti et al., 2004) and HIV transmission (Metsch et al., 2008). Perhaps not surprisingly, only 28% of HIV patients in the United States achieve sustained viral suppression, in part because of reduced treatment engagement (Hull, Wu, & Montaner, 2012). Inconsistent engagement with medical care is also associated with reduced CD4 counts, greater risk of opportunistic infections (e.g., pneumocystis pneumonia [Lundberg, Davidson, & Burman, 2000]), greater risk of disease progression to AIDS (Metsch et al., 2008), and increased mortality risk (Mugavero et al., 2009). In sum, engagement in medical care is essential for PLWHA's health and well-being.

Although a number of structural and systemic barriers have been shown to influence linkage and retention in care for PLWHA (Gardner et al., 2011; Philbin et al., 2014), persons with new HIV diagnoses must also overcome a number of psychological hurdles to fully engage in care. Three well-documented barriers to engagement in HIV care are stigmatization, reduced disclosure, and poor social support. Stigmatization is a common stressor for PLWHA and one that is directly linked to care engagement (Kempf et al., 2010; Madru, 2003; Mahajan et al., 2008; Schuster et al., 2005). Stigma can be internalized, in the form of negative self-attitudes, as well as externalized due to concerns about negative perceptions in the general public or in one's community (Berger, Ferrans, & Lashley, 2001). Acceptance of HIV status has the potential to increase tolerance of stigma by reducing its emotional valence, thereby allowing PLWHA to recognize that stigma is a common experience when living with HIV. Rather than attempting to avoid HIV stigmatization and sacrificing quality of life, individuals can make behavioral choices regardless of stigma fears. When acceptance of HIV stigma increases, we suggest patients are more likely to attend medical care.

A factor closely linked to stigma is disclosure. Only half of patients receive input from care providers on the benefits and risks of disclosure and how best to share their serostatus, and these discussions are not necessarily initiated early in care (Marks et al., 2002). The potential benefits of informed disclosure are numerous, including increased social support and increased likelihood of receiving adequate medical care (Mathews, Kuhn, Fransman, Hussey, & Dikweni, 1999). People who disclose their status are, in general, more open and receptive to care (Obermeyer, Baijal, & Pegurri, 2011). A growing literature supports the positive relationship of disclosure to medical care engagement. In a study of 398 patients, Wohl et al. (2011) reported that disclosure was a robust predictor of engagement, defined as

two or more primary care visits in the past 6 months (the recommended visit frequency for engagement [Department of Health and Human Services (DHHS), 2006]), among HIV-positive minority populations in care (odds ratio [OR] = 1.5; 95% confidence interval [CI] = [1.1, 1.9]). Among 128 mostly single, minority, impoverished mothers, disclosure to children predicted fewer missed medical appointments (Mellins et al., 2002). In a large urban HIV clinic, 66% of patients who disclosed their serostatus were retained in care for up to 2 years, whereas only 11% of patients who did not disclose were retained during the same period (Halperin, Pathmanathan, & Richey, 2013).

By disclosing, PLWHA can improve their social support and increase the likelihood of positive HIV health outcomes (Williams, Amico, & Konkle-Parker, 2011; Wohl et al., 2011). This is likely due to social supports, which encourage or remind the patient about taking his or her HIV medications or attending medical appointments as well as decreasing feelings of embarrassment, shame, or stigma. Reliable social supports might also provide transportation to the clinic or offer child care to facilitate the patient attending an appointment.

In this pilot study, testing the feasibility and acceptability of a brief, two-session acceptance-based behavior therapy (ABBT) intervention for newly diagnosed HIV patients, we used Moitra and Gaudiano's (under review) contextual behavioral model of medication adherence to conceptualize HIV acceptance as the reduction of experiential avoidance. Experiential avoidance is defined as attempts to avoid distressing internal experiences (e.g., anxious bodily sensations, depressive feelings, fearful thoughts of rejection; Hayes, Wilson, & Strosahl, 1999). Using this model, we developed an intervention meant to help patients determine whether disclosure avoidance is due to experiential avoidance or for very real safety reasons (physical and/or emotional) in the context of HIV acceptance and to improve informed decision-making skills about disclosure (Kalichman & Nachimson, 1999). Traditional cognitive therapy models promote behavior change by attempting to change patients' maladaptive and distressing thoughts. The ABBT protocol we developed and present here attempts to help patients accept their new HIV diagnosis and examine thoughts or feelings (i.e., experiential avoidance) around stigma, disclosure, and social support that could undermine their ability to achieve behavioral goals that are consistent with their life values. By teaching these skills immediately after patients' early contact with the HIV care system and by fostering an open and accepting perspective on life with HIV, we suggest ABBT can reduce distress and promote HIV medical care retention. Our objectives were to (a) determine the feasibility of recruiting HIV patients soon after diagnosis; (b) determine the acceptability of an intervention to help patients determine how, when, and to whom disclosure of HIV status should occur; and (c) examine whether reduction of experiential avoidance occurs and assists in medical care retention.

Method

ABBT Intervention

Overview of sessions—ABBT is synonymous with Acceptance and Commitment Therapy (ACT; Hayes et al., 1999). The intervention was designed as a brief add-on to the existing social work, case manager, or nursing intake processes, prior to a physician visit, for a newly diagnosed HIV patient seeking care at a specialty HIV clinic. The primary goals of

Session 1, which were guided by our prior acceptance-based work with PLWHA (Moitra, Herbert, & Forman, 2011), were to (a) develop rapport and a therapeutic relationship; (b) provide psychoeducation about medical care engagement and examination of potential barriers to engagement; (c) highlight the potential benefits of informed disclosure; (d) introduce core ABBT concepts of creative hopelessness (i.e., trying to make the HIV infection “go away” by not acknowledging it, thinking about it, etc. are hopeless), cognitive defusion (i.e., gaining psychological distance from distressing thoughts so that they do not necessarily dictate behavior), and experiential acceptance (i.e., avoidance of distressing internal and external experiences); and (e) clarify and probe life values. We aimed to complete Session 1 in less than 20 min. Session 2, scheduled for 2 to 4 weeks later and meant to be completed in less than 15 min, was designed as a “booster” session, in which no additional information was presented. Instead, the interventionist’s goals were to probe for understanding and resonance of Session 1 material and to construct action plan(s) when appropriate to facilitate informed disclosure. All pilot intervention sessions were delivered by a licensed, doctoral-level, clinical psychologist with 10 years of experience in delivering ABBT interventions.

Goal 1: Psychoeducation about engagement—The interventionist introduced the importance of medical care retention for HIV patients by emphasizing that the care guidelines for any HIV patient, irrespective of their immune status, medical condition, or symptoms, is to have longitudinal medical care. Longitudinal care was explained to the patient as having medical check-ins at least once every 3 to 4 months in addition to any symptom-based care required after the initial physician visit. The interventionist then discussed why this is important and probed for patients’ understanding of the need for regular care, clarifying and providing health care information as needed. The interventionist also highlighted data indicating that a significant proportion of patients drop out of care within the first few months of treatment, specifically noting that almost 50% of HIV patients new to care do not return after their first visit. Reasons for dropout, in general, were discussed, and then the interventionist probed for the patient’s potential engagement barriers. The final comment in this section was, “We do *not* want you to be one of the 50% of patients who do not return to care after a few months.”

Goal 2: Informed disclosure—The interventionist discussed that new research indicated that disclosure of HIV status to family or friends might be a mechanism positively associated with medical care engagement. The interventionist acknowledged that informed disclosure was a common concern for all people living with HIV/AIDS and that there is no “right way” to approach disclosure. However, careful disclosure to a trusted person could provide needed social support if patients are able to determine who might “help (you) *live* with HIV.” Patients were asked about whom they had already disclosed to, whom they were considering disclosing to, and potential barriers to disclosure. If patients believed they had already disclosed to everyone in their lives who might provide support, then the patient was encouraged to continue to recognize how such disclosure(s) were helpful. If the patient was undecided about upcoming disclosure possibilities, the interventionist helped the patient weigh the opportunity costs of disclosing, including potential safety risks. In situations where disclosure appeared appropriate and safe, the interventionist helped the patient

develop an action plan to make the disclosure. If no disclosure targets were generated, the interventionist encouraged the patient to consider what they might need to maintain engagement in their medical care independent of social support or other factors that might come with disclosure.

Goal 3: Creative hopelessness, cognitive defusion, and experiential

acceptance—We used the *Quicksand Metaphor* (Hayes & Smith, 2005) to discourage experiential control and promote experiential acceptance. Our aim was to illustrate that trying to “control” HIV by not discussing it, not thinking about it, and not going to medical appointments or taking HIV medications was misguided as the disease will not go away. Instead, we sought to encourage patients’ acceptance of the realities of living with HIV and facilitate an openness to experiencing HIV-related distress without allowing that distress to compromise quality of life. In this metaphor, the interventionist engaged in a conversation about quicksand and what to do when one falls into quicksand. The instinctual reaction to fight and struggle is the exact opposite approach one should take. Instead of struggling, one should “make full contact” with the quicksand, meaning one should spread his or her arms and legs and lay back into the quicksand so that he or she can float to the surface and then climb out. Patients were asked about how this metaphor might be relevant to living with HIV. Struggling with quicksand was equated with struggling with HIV (i.e., avoiding disclosures, not taking one’s medications, not attending clinic appointments, living in “denial”), and the point was made that trying to struggle with HIV will not make it go away and, in fact, might make one’s situation worse.

Goal 4: Value-driven living—The final topic for Session 1 was the generation of a list of life values and discussion of how these values could guide disclosure and treatment engagement. We developed a variation of the exercise *What Do You Want Your Life to Stand For* (Hayes et al., 1999), which we called a *Growing Old Exercise*. The interventionist asked the patient to imagine reflecting on life when he or she was 70 or 80 years old. This provided an opportunity for the interventionist to provide education about the great, and often misperceived, likelihood that it is very possible to live a normal life span with HIV. The patient was asked about what he or she would like to be remembered for and what others might state about how he or she lived. The patient was asked to write at least two to three of these values on an index card that could be kept and reviewed; we named this the *Values Card*. The interventionist discussed how this list of values could be useful to the patient, emphasizing that they could be a good reminder of what is most important to them. Moreover, the interventionist emphasized that the list of values consisted of qualities that could function outside of being HIV+. That is, it was discussed whether or not decisions could be made to act in accordance with values despite being HIV+. When appropriate, the interventionist used this as an opportunity to revisit the patient’s familial/social connections and to discuss how these values might be compromised when someone is avoiding HIV (i.e., engaging in experiential avoidance).

At the conclusion of Session 1, patients were encouraged to continue to ponder how they might put the concept of “not struggling with HIV” into practice in their lives. If disclosure

targets were identified, patients were encouraged to disclose. Finally, they were encouraged to stay conscious or aware of the list of values they generated when making future decisions.

Session 2

Booster: No new information was presented in Session 2, which took place in 10 to 15 min and was timed to occur around the time of the patient's initial physician visit. This session was used to check-in on progress, revisit psychoeducation about engagement, and review the *Quicksand Metaphor* and list of life values. Patients were asked to explain how being stuck in quicksand might compare with living with HIV. They were asked whether they retained the *Values Card*, and whether it was helpful to them. Finally, the interventionist used this session to set goals related to disclosure. Patients were asked whether they had disclosed their HIV status to any new parties since the previous session, and if so, why they chose to disclose and how it went. If the patient was undecided about upcoming disclosure possibilities, the interventionist helped the patient weigh the pros and cons of disclosing. In situations where disclosure appeared appropriate and safe, the interventionist helped the patient develop an action plan to make the disclosure.

Revisions to the treatment manual—We made some minor changes to the intervention following completion of the initial four patients' sessions. These were guided by patient and interventionist feedback.

Creative hopelessness and willingness metaphors were tested and excluded

—The classic acceptance-based approach to fostering creative hopelessness is to use the *Man in the Hole Metaphor* (Hayes et al., 1999), in which the patient's efforts to manage his or her problem(s) is compared with being stuck in a hole and trying to dig out of it with a shovel. The point of this metaphor is that no matter how hard one digs, this will not get a person out of a hole because digging makes hole; digging is a flawed approach. Often, the concept of willingness, meaning cognitive defusion and experiential acceptance, is introduced through the *Tug-of-War with a Monster Metaphor* (Hayes et al., 1999) in which the patient is encouraged to let go of the struggle with internal experiences because trying to beat a monster at tug-of-war is futile and likely to worsen one's state because of the effort it requires. In lengthier treatment paradigms, these metaphors work well and can be effective in making points about acceptance. However, in our study, these metaphors proved to be too time-consuming. The interventionist used both metaphors in the first sessions with the initial four patients, but they consumed too much time for the intervention to remain brief. Moreover, it was found that these metaphors appeared to have less resonance with patients than expected. Our interpretation of this finding is that both metaphors require a history of struggling with a problem. When a problem is new, such as being newly diagnosed with HIV, the patient does not have much experience "struggling with the HIV monster" or attempting to control his or her negative experiences. We switched to the *Quicksand Metaphor* as it was simpler and more time efficient, and it did not require a history of struggle to make the point that acceptance was a viable alternative to the control agenda (i.e., avoiding HIV).

Increased emphasis on engagement psychoeducation—Because of the brevity of this intervention, we decided to be more explicit with patients about the importance of engagement and what might compromise it. After the initial wave of four patients, we provided more data about HIV care dropout rates during the sessions and asked patients about their understanding of treatment engagement. We also added the question about why patients thought others might drop out of care, and discussed whether any of the stated reasons might be applied personally.

Changes to values clarification—We introduced the *Values Card* because we believed patients would benefit from a totemic list of the meaning of their lives. Instead of simply discussing values or generating a list on paper that we originally offered, an index card was used in later cases so that patients could carry it with them every day. Patients who received the index card explained that they kept it in their wallets, on their nightstand, and even in their car. This was an efficient way of keeping the principles discussed in our treatment sessions in the patients' daily consciousness.

Procedures

All procedures were approved by the Butler Hospital and the Miriam Hospital (TMH) institutional review boards.

Inclusion/exclusion criteria—Inclusion criteria were individuals who were (a) HIV+, (b) between 18 and 60 years old, (c) entering HIV care for the first time, (d) able to speak and read English sufficiently to be able to complete the study procedures, and (e) having access to a telephone. For patients who did not initially test HIV+ at our clinic, confirmatory testing was conducted. Exclusion criteria were (a) patients having a life expectancy <9 months and (b) patients who were psychiatrically or cognitively impaired.

Recruitment—Patients were directly referred to our study by the intake staff who were the initial point of contact at TMH immunology clinic, which cares for more than 80% of newly diagnosed HIV patients in Rhode Island. All patients were new to our clinic; that is, they were not transferring HIV care from another site. After describing the clinic's new patient procedures and available resources, TMH clinical staff offered participation in our study. Interested patients were screened by research staff for eligibility. If patients met eligibility criteria and signed informed consent, they received a baseline research assessment within 1 week of their initial immunology clinic appointment. Immediately following the baseline assessment, all patients then received the ABBT intervention with the clinical psychologist.

Follow-up assessments—A research assistant conducted a 1-month post-baseline assessment with patients. Eight of the nine enrolled patients completed the 1-month assessment, seven of which were completed in-person at the clinic. One patient completed his 1-month assessment by telephone to accommodate his work schedule. A 3-month chart review was conducted for all enrolled patients to assess appointment attendance.

Measures

Demographics—We assessed the following demographics through patient self-report: age, education, employment status, ethno-racial status, gender, and marital status. We also assessed a number of HIV-relevant variables: date of HIV diagnosis, delay in entry to care, history of previous HIV testing, CD4 cell counts, number of sexual or injection equipment sharing partners in the past 12 months, partner's HIV status (when applicable), and risk factors for acquiring HIV.

Treatment engagement and adherence—Our primary outcome of interest in this study was primary care treatment engagement, defined as attending at least one medical appointment every 3 to 4 months (DHHS, 2006), subsequent to the initial appointment in which patients enrolled in the clinic. In this pilot phase of our work, we focused on developing the intervention and doing a brief chart review follow-up (at 3 months). We reviewed patients' electronic medical records to examine (a) frequency of attended medical appointments and (b) ratio of attended to scheduled appointments. In our future randomized trial, we will assess patients' longitudinal retention in care up to 9 months post baseline.

Substance use—We assessed hazardous drinking with the Alcohol Use Disorders Identification Test–Consumption Questions (AUDIT-C; Bush et al., 1998). This is a brief, three-item measure with good reliability and validity (Bradley et al., 2003; Bush et al., 1998). Lifetime history and past 30-day frequency of substance misuse were assessed with the drug module of the Addiction Severity Index (McLellan et al., 1985; McLellan, Luborsky, Woody, & O'Brien, 1980).

Depression severity—The Patient Health Questionnaire (PHQ-9; Kroenke, Spitzer, & Williams, 2001) was used to assess self-reported depression symptom severity. The nine-item PHQ-9 was specifically developed for use in primary care settings and has been shown to have good reliability and shows construct validity (Kroenke et al., 2001).

Acceptance of HIV—We adapted the newest version of the self-report Acceptance and Action Questionnaire–II measure (seven items; AAQ-II; Bond et al., 2011) to measure acceptance of HIV status. The AAQ-II assesses general psychological acceptance, emotional willingness, and tendency to engage in experiential avoidance. We rephrased two items to focus on HIV. Specifically, we modified the original AAQ-II item, “I worry about not being able to control my worries and feelings,” to “I worry about not being able to control my worries and feelings about HIV.” We also altered the AAQ-II item, “Worries get in the way of my success,” to read, “Worries about HIV get in the way of my success.”

Disclosure of HIV status—We used the Disclosure subscale of the Brief HIV Disclosure and Safer Sex Self-Efficacy Scales (Kalichman et al., 2001) to assess willingness to disclose HIV status. In addition, we added items to assess number of disclosures made (i.e., “How many people have you disclosed your HIV status to?”) and to assess to whom those disclosures were made (e.g., co-workers, family members, friends, others, and sexual partners).

HIV stigmatization—To measure experiences of HIV stigmatization, we used the shortened 10-item form of the HIV Stigma Scale (HSS; Berger et al., 2001; Wright, Naar-King, Lam, Templin, & Frey, 2007).

Distrust of the health care system—Distrust was measured using the self-report Healthcare System Distrust Scale (Rose, Peters, Shea, & Armstrong, 2004), a 10-item instrument that assesses distrust in the health care system.

Treatment satisfaction—The study research assistant administered a brief measure to assess patients' perceptions of the intervention, including its overall acceptability and its length. Items on a Likert-type scale, ranging from 1 to 7, were used to examine the intervention's helpfulness (e.g., "I understood what was discussed at these meetings; I feel that the program has helped me,") and its content (e.g., perceived usefulness of "Discussion of barriers to attending my medical appointments" and "Discussion of the difficulties caused by struggling with HIV"). Patients were also given an open-ended question to provide general comments and feedback about the study, including the intervention and the assessment battery.

Data Analysis

Descriptive statistics were used to summarize overall characteristics of the patients. Means, standard deviations, percentiles, and ranges were calculated for continuous variables. Frequencies and proportions were calculated for categorical measures. We examined mean and standard deviations of patients' ratings of the intervention and its components. To assess changes on outcome measures and putative mediators, we examined standardized change scores.

Results

Acceptability and Feasibility

Recruitment—Figure 1 provides a description of patient flow. A total of 15 patients were referred by TMH staff during 4 months of recruitment, 12 were eligible for participation, and 9 (75%) consented to participate in the study. The three patients who refused participation attributed their decision to feeling too emotionally distressed about their new diagnosis. Among the nine patients (six males and three females) enrolled, three participants were non-Latino White, two were African American, and four were Latino. Mean age was 33.1 ($SD = 11.9$). Six participants (66%) completed at least a high school education. Two participants (22%) were employed full-time, one worked part-time (11%), five were unemployed but looking for work (55%), and one was disabled (11%). On average, participants were diagnosed 84.7 days prior to study enrollment ($SD = 76.3$); three were diagnosed within 3 weeks of study enrollment. Seven participants were diagnosed in our clinic or another local sexually transmitted infection (STI) clinic. One woman was diagnosed after undergoing routine screening for life insurance coverage. Another was diagnosed as a result of blood work conducted for a non-HIV, unrelated research study. Eight reported believing they were infected with HIV via sexual activity; one participant believed she was infected through intravenous drug use (IDU). We broadly defined active

substance misuse by meeting (a) standard cutoffs on the AUDIT-C for hazardous drinking (i.e., 4 for men, 3 for women) and/or (b) any non-prescribed substance use (e.g., heroin, cocaine, marijuana) in the past month. In our pilot sample, four patients met criteria for hazardous drinking and four reported illicit substance misuse (one heroin, one hallucinogens, and two marijuana).

Intervention retention—Eight of the 9 patients returned for the second intervention session (a dropout rate of 11%). The patient who did not complete ABBT Session 2 enrolled in the study while she was living at a sober house.

Analysis of participant feedback—In our end of treatment questionnaire, participants were given the opportunity to rate the quality of the intervention on a number of scales in addition to being able to provide open-ended written feedback. Six of the eight participants who completed all assessments reported that the length of the intervention (two sessions) was “just right”; two participants expressed a desire to lengthen the intervention with additional sessions. Results from the end-of-treatment questionnaire are summarized in Table 1. Open-ended feedback was wholly positive. For instance, participants stated, “The program itself is beautiful and facilitated in such a way that it is beneficial and comforting, which is big for people recently diagnosed” and “I thought the reference of quicksand was very helpful. Life goes on, accept it and move on.”

Three-month TMH clinic retention and change in putative mediators—We conducted medical chart reviews to examine our primary outcome of care engagement during the first 3 months of care. All nine participants attended at least one care medical visit from baseline through 3 months, the minimum recommended for PLWHA. Participants attended 78% of their scheduled visits, on average 1.6 appointments during this time span ($SD = 0.53$). Six participants initiated ART between the baseline and 3-month visits. Of the eight participants who completed follow-up assessment, four (50%) reported newly disclosing their HIV status to at least one member of their support network (see Table 2 for a summary of baseline and 1-month data, including reliability and standardized change scores). As expected, HIV acceptance increased from baseline to 1-month follow-up. In addition, reductions in depressive symptoms, HIV stigmatization, and health care system distrust were observed.

Discussion

Our goal was to develop a very brief intervention that could be incorporated into usual care in HIV clinics, and these open pilot results support continuing to investigate the impact of ABBT on engagement in medical care for newly diagnosed PLWHA. ABBT appears to be acceptable to newly diagnosed patients. Equally important, 75% of those approached agreed to participate, suggesting that recruitment into a research study is possible even during this early phase of care. This is a high-stress time for patients, and we worried that they would feel too distressed to participate this early in their course of care, before they have had full medical evaluation and met clinical staff. This concern was expressed by three eligible patients who chose not to participate because they were acutely distressed and did not want to join in conversations about their new diagnosis beyond those related to their usual care.

Of the nine study participants, it should be noted that only three were diagnosed within the month prior to study enrollment. The remaining six participants were diagnosed at least 2 months prior to enrollment, with one participant being diagnosed 8 months prior to enrollment; all six participants had been diagnosed outside of our clinic. Participants reported not seeking care immediately after being diagnosed due to their distress. Those seeking care must then navigate a new medical system and deal with multiple providers attempting to address their individual needs, raising their distress and risk of treatment dropout. This pattern is common in our clinic and elsewhere (Fleishman, Yehia, Moore, Gebo, & Network, 2010; Tripathi et al., 2011; Zaller, Fu, Nunn, & Beckwith, 2011) and, we suggest, lends further support for bolstering retention efforts during initial contact with new patients during the HIV care intake process. Historical rates of retention at our clinic range from 62% to 68% (Touzard Romo et al., 2015). In our sample, all participants attended at least one appointment during the 3-month follow-up period. Moreover, they attended 78% of their scheduled visits.

Comments about the program were generally positive, and the intervention was well-rated for its perceived usefulness. Eight of our nine study participants received the two scheduled intervention sessions and completed a 1-month follow-up interview. Quantitative results from baseline assessment to the 1-month follow-up showed improvements in patients' psychological acceptance of HIV, depressive symptomatology, perceptions of stigmatization, and trust of the health care system. Although depression, stigma, and health care distrust were not directly targeted in our intervention, we suggest ABBT indirectly affects these important engagement barriers. However, although directionally consistent with our expectations, we acknowledge that ABBT's impact on these important barriers was modest. Further replication in larger samples is needed to confirm effects. Moreover, in 1 month, 50% of participants disclosed to at least one person in their social support network. According to the patients, the remaining 50% did not disclose because (a) they did not have anyone to disclose to or (b) they identified a disclosure target but "did not find the right time" to disclose. The former group is challenging because these are individuals who have no social support system. These patients likely have the most to gain from participation in HIV support groups and other venues in which they can connect to their peers. ABBT aimed to enhance the motivation to disclose but did not insist on a specific timeline as to when disclosure should happen. We do not know the natural course of disclosure but hope to learn more during our ongoing randomized trial. Patients who delayed disclosure often discussed the need to have private conversations with their disclosure target. For instance, one patient aimed to disclose to a co-worker but would not do so until they could have a private conversation. The same applied to a patient who wanted to disclose to his mother but not his father. We do not know whether changes in acceptance or new disclosures occurred among patients who refused to participate in our study, or whether study refusers represent a group at higher or lower risk of treatment dropout.

The cohort was recruited at the largest outpatient HIV center in Rhode Island, providing care to approximately 75% of the state's population. The majority of new HIV diagnoses in our state parallel national trends with a disproportionate number of men who have sex with men, younger individuals, and racial and ethnic minority groups (Gillani et al., 2009). Although small, we suggest that this sample is representative of newly diagnosed HIV patients in our

area and that their pattern of care seeking is consistent with other HIV clinics in the United States. Our sample was diverse in that six participants were of an ethno-racial minority background, and three were women. Ethno-racial minorities, in general, are particularly at risk of poor medical care engagement. Research shows that HIV+ African Americans and Latinos attend fewer medical appointments than their non-Latino White counterparts (see Tobias, Cunningham, Cunningham, & Pounds, 2007, for a review). This is particularly concerning given that minorities are disproportionately affected by HIV/AIDS (Centers for Disease Control and Prevention, 2007).

Conclusion

These preliminary data on the acceptability, feasibility, and impact on outcomes and potential mechanisms of change support the continued investigation of this very brief ABBT as an adjunctive intervention to engage and retain newly diagnosed HIV patients in primary medical care. Retention in care is a significant public health concern and one that warrants ongoing attention in the medical and psychological communities. Because little is known about the natural history of HIV disclosure, future investigations might test whether ABBT increases disclosure during patients' first months in the medical system compared with usual care, and whether such increases produce benefits in terms of care engagement and health outcomes over extended periods.

Acknowledgments

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research was funded by a grant from the National Institute of Mental Health (#R34 MH098694).

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Michael D. Stein, MD, professor of medicine, health services, policy, and practice at the Alpert Medical School of Brown University and director of the Behavioral Medicine Division at Butler Hospital, is an internist and has been a leader in the substance abuse and HIV research fields since the early 1990s.

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Figure 1.
Flow of participants in open trial.

Table 1

End of Treatment Questionnaire Results.

	Min	Max	<i>M (SD)</i>	Median
Agreement items				
Program was helpful.	6	7	6.71 (0.49)	7.0
Understood what was discussed.	7	7	7.00 (0.00)	7.0
Plan to continue to use and practice what I learned.	6	7	6.86 (0.38)	7.0
Feel the program helped me.	6	7	6.86 (0.38)	7.0
Feel hopeful I'll continue to benefit.	7	7	7.00 (0.00)	7.0
Usefulness items				
Discussion of how my life has changed.	6	7	6.71 (0.49)	7.0
Discussion of how challenging living with HIV can be.	0	7	5.43 (2.57)	7.0
Discussion of barriers to attending medical appointments.	0	7	6.00 (2.65)	7.0
Discussion of life values.	4	7	6.43 (1.13)	7.0
Discussion of difficulties caused by struggling with HIV.	5	7	6.57 (0.79)	7.0
Assignments to do things.	6	7	6.86 (0.38)	7.0
Having the meetings at the primary care clinic.	6	7	6.86 (0.38)	7.0

Table 2

Baseline and 1-Month Scores on Outcome and Meditational Measures.

	<i>N</i>	Cronbach's alpha	Baseline		1-Month		Std.
			<i>M (SD)</i>		<i>M (SD)</i>		
AAQ-2 Total Scale Score	8	.77	47.63 (11.61)		51.88 (13.39)	4.25	0.37
PHQ-9 Total Scale Score	8	.72	6.63 (5.01)		6.25 (3.62)	-0.38	-0.07
Berger HSS Total Scale Score	8	.89	96.50 (13.64)		95.50 (16.47)	-1.00	-0.07
HCS-D Total Scale Score	6	.86	22.33 (7.76)		21.33 (6.29)	-1.00	-0.13

Note. = Change score computed as Month 1–Baseline; Std. = Computed as (/ (baseline *SD*); AAQ-2 = Acceptance and Action Questionnaire-2; PHQ-9 = Patient Health Questionnaire-9; HSS = HIV Stigma Scale; HCS-D = Healthcare System Distrust Scale.